



	Price(1)	
Common Stock, \$0.001 par value per share	\$69,000,000	\$8,887.20

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

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

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

Subject to Completion. Dated July 2, 2014

Shares



Common Stock

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This is an initial public offering of shares of common stock of T2 Biosystems, Inc. All of the \_\_\_\_\_ shares of common stock are being sold by us.

Prior to this offering, there has been no public market for our common stock. It is currently estimated that the initial public offering price per share will be between \$ \_\_\_\_\_ and \$ \_\_\_\_\_. Application has been made to list our common stock on The NASDAQ Global Market under the symbol "TTOO".

We are an emerging growth company as that term is used in the Jumpstart Our Business Startups Act of 2012 and, as such, have elected to comply with certain reduced public company reporting requirements for this prospectus and future filings.

See "Risk Factors" beginning on page 10 to read about factors you should consider before buying shares of our common stock.

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

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	Per Share	Total
Initial public offering price	\$ _____	\$ _____
Underwriting discount <sup>(1)</sup>	\$ _____	\$ _____
Proceeds, before expenses, to T2 Biosystems	\$ _____	\$ _____

(1) See "Underwriting (Conflict of Interest)" beginning on page 135 for additional information regarding underwriting compensation.

The underwriters have an option to purchase a maximum of \_\_\_\_\_ additional shares of common stock from us at the initial public offering price less the underwriting discount.

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

**Goldman, Sachs & Co.**

**Leerink Partners**

**Morgan Stanley**

**Janney Montgomery Scott**

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Prospectus dated \_\_\_\_\_, 2014

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## TABLE OF CONTENTS

	<u>Page</u>
<a href="#">Prospectus Summary</a>	<a href="#">1</a>
<a href="#">Risk Factors</a>	<a href="#">10</a>
<a href="#">Special Note Regarding Forward-Looking Statements</a>	<a href="#">44</a>
<a href="#">Industry and Other Data</a>	<a href="#">45</a>
<a href="#">Use of Proceeds</a>	<a href="#">46</a>
<a href="#">Dividend Policy</a>	<a href="#">46</a>
<a href="#">Capitalization</a>	<a href="#">47</a>
<a href="#">Dilution</a>	<a href="#">49</a>
<a href="#">Selected Financial Data</a>	<a href="#">51</a>
<a href="#">Management's Discussion and Analysis of Financial Condition and Results of Operations</a>	<a href="#">53</a>
<a href="#">Business</a>	<a href="#">67</a>
<a href="#">Management</a>	<a href="#">97</a>
<a href="#">Executive and Director Compensation</a>	<a href="#">105</a>
<a href="#">Certain Relationships and Related Person Transactions</a>	<a href="#">115</a>
<a href="#">Principal Stockholders</a>	<a href="#">118</a>
<a href="#">Description of Capital Stock</a>	<a href="#">122</a>
<a href="#">Shares Eligible for Future Sale</a>	<a href="#">128</a>
<a href="#">Material U.S. Federal Income Tax Consequences to Non-U.S. Holders</a>	<a href="#">131</a>
<a href="#">Underwriting (Conflict of Interest)</a>	<a href="#">135</a>
<a href="#">Legal Matters</a>	<a href="#">140</a>
<a href="#">Experts</a>	<a href="#">140</a>
<a href="#">Where You Can Find More Information</a>	<a href="#">140</a>
<a href="#">Index to Financial Statements</a>	<a href="#">F-1</a>

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We have not, and the underwriters have not, authorized anyone to provide any information or to make any representations other than those contained in this prospectus or in any free writing prospectus prepared by or on behalf of us or to which we have referred you. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. This prospectus is an offer to sell only the shares offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. The information contained in this prospectus or in any applicable free writing prospectus is current only as of its date, regardless of its time of delivery or any sale of shares of our common stock. Our business, financial condition, results of operations and prospects may have changed since that date.

Until \_\_\_\_\_, 2014 (25 days after the commencement of this offering), all dealers that buy, sell or trade shares of our common stock, whether or not participating in this offering, may be required to deliver a prospectus. This delivery requirement is in addition to the obligation of dealers to deliver a prospectus when acting as underwriters and with respect to their unsold allotments or subscriptions.

For investors outside the United States: We have not, and the underwriters have not, done anything that would permit this offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than in the United States. Persons outside the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering of the shares of common stock and the distribution of this prospectus outside the United States.

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## PROSPECTUS SUMMARY

*This summary highlights information contained elsewhere in this prospectus. This summary does not contain all of the information you should consider before investing in our common stock. You should read this entire prospectus carefully, especially the "Risk Factors" section beginning on page 9 and our financial statements and the related notes appearing at the end of this prospectus, before making an investment decision.*

As used in this prospectus, unless the context otherwise requires, references to "we," "us," "our" and "T2 Biosystems" refer to T2 Biosystems, Inc.

### Company Overview

We are an *in vitro* diagnostics company that has developed an innovative and proprietary technology platform that offers a rapid, sensitive and simple alternative to existing diagnostic methodologies. We are using our T2 Magnetic Resonance platform, or T2MR, to develop a broad set of applications aimed at lowering mortality rates, improving patient outcomes and reducing the cost of healthcare by helping medical professionals make targeted treatment decisions earlier. T2MR enables rapid detection of pathogens, biomarkers and other abnormalities in a variety of unpurified patient sample types, including whole blood, and can detect cellular targets at limits of detection as low as one colony forming unit per milliliter, or CFU/mL. Our initial development efforts utilizing T2MR target sepsis and hemostasis, which are areas of significant unmet medical need in which existing therapies could be more effective with improved diagnostics.

We have completed a pivotal clinical trial for our T2Dx diagnostic instrument, or T2Dx, and T2Candida panel, or T2Candida, which have the ability to rapidly identify the five clinically relevant species of *Candida*, a fungal pathogen known to cause sepsis. On May 27, 2014, we submitted a *de novo* petition to the FDA, requesting an order authorizing us to market T2Dx and T2Candida in the United States. Upon receipt of marketing authorization from the FDA, we intend to commercialize T2Dx and T2Candida and our goal is to launch these product candidates commercially in the United States in the first half of 2015. Our next two diagnostic applications are called T2Bacteria and T2HemoStat, which are focused on bacterial sepsis infections and hemostasis, respectively. We plan to initiate clinical trials in the second half of 2015 for T2Bacteria and in the first half of 2016 for T2HemoStat. We expect that existing reimbursement codes will support our sepsis and hemostasis product candidates, that we will have no need to seek new reimbursement codes, and that the anticipated economic savings associated with our sepsis products will be realized directly by hospitals.

We believe our sepsis product candidates will redefine the standard of care in sepsis management while lowering healthcare costs by improving both the precision and the speed of pathogen detection. According to a study published in the *Journal of Clinical Microbiology* in 2010, targeted therapy for patients with bloodstream infections can be delayed up to 72 hours due to the wait time for blood culture results, leading to the conclusion that "more-rapid identification of the causative organism would be highly desirable to facilitate targeted treatment in the critical phase of septic illness." Our pivotal clinical trial demonstrated that T2Candida can deliver actionable results as fast as three hours, with an average time to result during the trial of 4.2 hours, rather than the two to five days typically required for blood-culture-based diagnostics, which we believe will enable physicians to make treatment decisions and administer targeted treatment to patients on an accelerated basis. We believe that T2Bacteria will also deliver actionable results within these timeframes because this diagnostic panel is designed to run on the same instrument as T2Candida. *Candida* has an average mortality rate of approximately 40%, and according to a study published in *Antimicrobial Agents and Chemotherapy* in 2010, this mortality rate can be reduced to 11% with the initiation of targeted therapy within 12 hours of presentation of symptoms. In a study published in the *American Journal of Respiratory and Critical Care Medicine* in 2009, providing targeted antifungal therapy within 24 hours of the presentation of symptoms decreased the length of hospital

stay by approximately ten days and decreased the average cost of care by approximately \$30,000 per patient.

## **Target Markets**

### **Sepsis**

Sepsis is a leading cause of death in the United States and the most expensive hospital-treated condition. Most commonly afflicting immunocompromised, critical care and elderly patients, sepsis is a severe inflammatory response to a bacterial or fungal infection, with a mortality rate of approximately 30%. Sepsis is typically caused by one or more of five fungal *Candida* species or over 25 bacterial pathogens, and effective treatment of sepsis requires the early detection and identification of these specific target pathogens. Today, sepsis is typically diagnosed through a series of blood cultures followed by post-blood culture species identification. This method has substantial diagnostic limitations that lead to a delay of up to several days in administration of targeted treatment as well as the incurrence of unnecessary hospital expense.

### **Hemostasis**

Another significant unmet clinical need which we believe can be addressed by T2MR is the diagnosis and management of impaired hemostasis, which is a potentially life-threatening condition in which a patient is unable to promote the formation of blood clots to stabilize excessive bleeding. For critical trauma patients with impaired hemostasis, diagnostic results are typically required in fewer than 30 minutes to aid clinicians in making the most effective treatment decisions. The need for rapid diagnosis is not met by current diagnostic methods, which typically involve multiple instruments and can take hours to process a patient specimen. As a result, physicians often make critical decisions for treatment of impaired hemostasis with limited or no diagnostic data.

### **Market Opportunity**

We believe our combined initial annual addressable market opportunity for sepsis and hemostasis is over \$3 billion in the United States alone, when the market opportunity for T2Candida, T2Bacteria and our initial hemostasis diagnostic panel is combined. Within the sepsis market in the United States, we estimate that there are approximately 6.75 million critical care and immunocompromised patients who present with symptoms and are at high risk for a bloodstream infection caused by *Candida* and would be appropriate to be tested by our T2Candida panel. These patients, along with approximately two million additional patients who receive treatment in the emergency room setting, are also highly susceptible to bacterial infections, for a total of approximately 8.75 million patients who are at high risk for bacterial-related sepsis and would be appropriate to be tested by our T2Bacteria panel. Within the hemostasis market, for trauma alone, there are over three million patients in the United States annually who present with symptoms of impaired hemostasis. These patients often require rapid and frequent hemostasis assessments to determine the presence and severity of abnormal coagulation, or blood clotting. As a result, the typical patient is tested at least three times during a hospital visit, which we estimate results in at least nine million diagnostic tests annually.

### **Our Technology Platform**

We have developed an innovative and proprietary technology platform that offers a rapid, sensitive and simple alternative to existing diagnostic methodologies. T2MR is a miniaturized, magnetic resonance-based approach that measures how water molecules react in the presence of magnetic fields. Our proprietary platform is capable of detecting a variety of targets, including:

- molecular targets, such as DNA;
- immunodiagnostics, such as proteins; and

- a broad range of hemostasis measurements.

For molecular and immunodiagnostic targets, T2MR utilizes advances in the field of nanotechnology by deploying particles with magnetic properties that enhance the magnetic resonance signals of specific targets. We believe T2MR is the first technology that can rapidly and accurately detect the presence of molecular targets within samples without the need for time and labor-intensive purification or extraction of target molecules from the sample, such as that required by traditional polymerase chain reaction methods where 90% or more of the target can be lost. For hemostasis measurements, particles are not required because T2MR is highly sensitive to changes in viscosity within a blood sample, such as clot formation.

Utilizing T2MR technology, we have developed T2Dx, a bench-top instrument for sepsis and other applications, and we are developing T2Stat, a compact, fully integrated instrument for hemostasis applications. T2Dx is an easy-to-use, fully automated, bench-top instrument that is capable of running a broad range of diagnostic panel types from patient sample input to result. The initial panels designed to run on T2Dx are T2Candida and T2Bacteria, which are focused on identifying life-threatening pathogens associated with sepsis. We believe T2Stat is the first compact, fully integrated instrument capable of rapidly providing comprehensive hemostasis measurements. T2Stat will run our T2HemoStat panel, which includes a broad set of hemostasis measurements, including platelet function, clotting time and clot degradation, also known as fibrinolysis.

### **Our Strategy**

T2MR enables rapid and sensitive direct detection of a range of targets, and we believe it can be used in a variety of diagnostic applications that will improve patient outcomes and reduce healthcare costs. Our objective is to establish T2MR as a standard of care for clinical diagnostics. To achieve this objective, our strategy is to:

- seek marketing authorization from the FDA for T2Dx and T2Candida;
- drive commercial adoption of our sepsis products by demonstrating their value to physicians, laboratory directors and hospitals;
- establish a recurring, consumables-based business model;
- broaden our addressable markets in sepsis and hemostasis;
- broaden our addressable markets beyond sepsis and hemostasis; and
- drive international expansion.

### **Risks Associated with Our Business**

Our business is subject to numerous risks, including:

- We have a limited operating history. We currently have no commercial products and we have not received marketing authorization from the FDA for any product.
- Marketing authorization from the FDA and regulatory approval by foreign regulatory authorities for T2Dx, T2Candida and our other diagnostic product candidates will take time and require significant research, development and clinical study expenditures, and ultimately may not be received.
- Commercialization of T2Dx, T2Candida and our other diagnostic product candidates following marketing authorization from the FDA is the key element of our strategy. If we fail to successfully commercialize T2Dx, T2Candida or such other products, whether as a result of an inability to convince hospitals that our product candidates provide equal or superior diagnostic information on a more rapid basis and improve patient outcomes, or for other reasons, we may never receive a return on the significant investments in sales and

marketing, regulatory, manufacturing and quality assurance we have made, and further investments we intend to make.

- We have incurred losses since we were formed and expect to incur losses for the foreseeable future. Our accumulated deficit as of March 31, 2014 was \$98.1 million and we incurred net losses of \$20.6 million and \$6.9 million for the year ended December 31, 2013 and the three months ended March 31, 2014, respectively. We cannot be certain that we will achieve or sustain profitability or be able to raise additional capital to fund operations.
- The *in vitro* diagnostics market is highly competitive, with the involvement of more established, better-capitalized commercial companies. If we fail to compete effectively, our ability to achieve profitability will be compromised.
- If we are unable to protect our intellectual property, our ability to compete effectively after receipt of marketing authorization from the FDA will be impaired.

#### **Our Corporate Information**

We were incorporated under the laws of the state of Delaware in 2006. Our principal executive offices are located at 101 Hartwell Avenue, Lexington, Massachusetts 02421 and our telephone number is (781) 457-1200. Our website address is [www.t2biosystems.com](http://www.t2biosystems.com). The information contained in, or accessible through, our website does not constitute a part of this prospectus.

#### **Implications of Being an Emerging Growth Company**

As a company with less than \$1.0 billion in revenue during our last fiscal year, we qualify as an "emerging growth company" as defined in the Jumpstart Our Business Startups Act, or JOBS Act, enacted in April 2012. An "emerging growth company" may take advantage of exemptions from some of the reporting requirements that are otherwise applicable to public companies. These exceptions include:

- being permitted to present only two years of audited financial statements and only two years of related Management's Discussion and Analysis of Financial Condition and Results of Operations in this prospectus;
- not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002, as amended;
- reduced disclosure obligations regarding executive compensation in our periodic reports, proxy statements and registration statements; and
- exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved.

We may take advantage of these provisions until the last day of our fiscal year following the fifth anniversary of the closing of this offering. However, if certain events occur prior to the end of such five-year period, including if we become a "large accelerated filer," our annual gross revenue exceeds \$1.0 billion or we issue more than \$1.0 billion of non-convertible debt in any three-year period, we will cease to be an emerging growth company prior to the end of such five-year period.

We have elected to take advantage of certain of the reduced disclosure obligations in this prospectus and may elect to take advantage of other reduced reporting requirements in future filings. As a result, the information that we provide to our stockholders may be different than you might receive from other public reporting companies in which you hold equity interests.

In addition, the JOBS Act provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards. We have irrevocably elected not to avail ourselves of this exemption and, therefore, we will be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies.



**The Offering**

Common stock offered by us	shares
Common stock to be outstanding after this offering	shares
Option to purchase additional shares	The underwriters have a 30-day option to purchase a maximum of additional shares of common stock.
Use of proceeds	We intend to use the net proceeds from this offering to commercialize our T2Dx and T2Candida product candidates if they receive marketing authorization from the FDA, to fund development of our other product candidates and for working capital and general corporate purposes. See "Use of Proceeds" beginning on page 46.
Risk factors	See "Risk Factors" beginning on page 10 and the other information included in this prospectus for a discussion of factors you should consider carefully before deciding to invest in our common stock.
Proposed NASDAQ Global Market symbol	"TTOO"
Conflict of interest	Because certain affiliates of Goldman, Sachs & Co., an underwriter of this offering, beneficially own % of our common stock as of June 30, 2014, and are together entitled to designate one member of our board of directors prior to the closing of this offering, Goldman, Sachs & Co. is deemed to have a "conflict of interest" within the meaning Rule 5121 of the Financial Industry Regulatory Authority, or FINRA. Accordingly, this offering will be made in compliance with the applicable provisions of FINRA Rule 5121. FINRA Rule 5121 prohibits Goldman, Sachs & Co. from making sales to discretionary accounts without the prior written approval of the account holder and requires that a "qualified independent underwriter," as defined in FINRA Rule 5121, participate in the preparation of the registration statement and exercise its usual standards of due diligence with respect thereto. Morgan Stanley & Co. LLC has agreed to act as "qualified independent underwriter" for this offering. See "Underwriting (Conflict of Interest)".

The number of shares of our common stock to be outstanding after this offering is based on 23,678,144 shares of our common stock outstanding as of March 31, 2014, after giving effect to the automatic conversion of all outstanding shares of our preferred stock into 21,277,722 shares of our common stock upon the closing of this offering and the issuance of \_\_\_\_\_ shares of our common stock as a result of the net exercise of all outstanding warrants, which will occur upon the closing of this offering, and excludes:

- 3,880,504 shares of our common stock issuable upon exercise of stock options outstanding as of March 31, 2014, at a weighted-average exercise price of \$1.51 per share; and
- shares of our common stock reserved for future issuance under our 2014 Incentive Award Plan which will become effective on the day prior to the public trading date of our common stock, as well as shares of our common stock that become available pursuant to provisions in our 2014 Incentive Award Plan that automatically increase the share reserve under the 2014 Incentive Award Plan on January 1 of each calendar year as more fully described in "Executive and Director Compensation—2014 Incentive Award Plan".

Unless otherwise indicated, this prospectus reflects and assumes the following:

- the automatic conversion of all outstanding shares of our preferred stock into 21,277,722 shares of our common stock, which will occur upon the closing of this offering;
- the issuance of \_\_\_\_\_ shares of our common stock as a result of the net exercise of all outstanding warrants, which will occur upon the closing of this offering, assuming an initial public offering price of \$ \_\_\_\_\_ per share, which is the midpoint of the price range set forth on the cover page of this prospectus;
- no exercise of outstanding stock options after March 31, 2014;
- the filing of our restated certificate of incorporation and the adoption of our amended and restated bylaws, which will occur upon the closing of this offering; and
- no exercise by the underwriters of their option to purchase additional shares of our common stock.

### Summary Financial Data

The following tables set forth, for the periods and as of the dates indicated, our summary financial data. The statement of operations data for the years ended December 31, 2012 and 2013 are derived from our audited financial statements appearing elsewhere in this prospectus. The balance sheet data as of March 31, 2014 and the statement of operations data for the three months ended March 31, 2013 and 2014 and the statement of operations data for the period from our inception (April 27, 2006) to March 31, 2014 have been derived from our unaudited financial statements included elsewhere in this prospectus. These unaudited financial statements have been prepared on a basis consistent with our audited financial statements and, in our opinion, contain all adjustments, consisting of normal and recurring adjustments, necessary for the fair presentation of such financial data. You should read this data together with our financial statements and related notes included elsewhere in this prospectus and the information under the captions "Selected Financial Data" and "Management's Discussion and Analysis of Financial Condition and Results of Operations". Our historical results are not necessarily indicative of our future results, and our operating results for the three months ended March 31, 2014 are not necessarily indicative of the results that may be expected for the year ending December 31, 2014 or any other interim periods or any future year or period.

	Year Ended December 31,		Three Months Ended March 31,		Period from April 27, 2006 (Inception) to March 31, 2014
	2012	2013	2013	2014	
(in thousands, except share and per share data)					
<b>Statement of Operations Data:</b>					
Research and grant revenue	\$ 19	\$ 266	\$ —	\$ —	\$ 3,085
Operating expenses:					
Research and development	11,727	14,936	3,561	5,065	59,388
Selling, general and administrative	2,945	5,022	1,039	1,842	22,552
Total operating expenses	14,672	19,958	4,600	6,907	81,940
Interest expense, net	(154)	(403)	(105)	(86)	(937)
Other income (expense), net	352	(515)	125	73	611
Net loss	(14,455)	(20,610)	(4,580)	(6,920)	(79,181)
Accretion of redeemable convertible preferred stock to redemption value	(4,412)	(6,908)	(1,176)	(1,906)	(21,307)
Net loss applicable to common stockholders	\$ (18,867)	\$ (27,518)	\$ (5,756)	\$ (8,826)	\$ (100,488)
Net loss per share applicable to common stockholders – basic and diluted <sup>(1)</sup>	\$ (8.15)	\$ (11.60)	\$ (2.45)	\$ (3.68)	\$ (58.62)
Weighted-average number of common shares used in computing net loss per share applicable to common stockholders – basic and diluted <sup>(1)</sup>	2,314,832	2,372,542	2,346,601	2,400,422	1,714,171

	Year Ended December 31,		Three Months Ended March 31,		Period from April 27, 2006 (Inception) to March 31, 2014
	2012	2013	2013	2014	2014
	(in thousands, except share and per share data)				
Pro forma net loss per share applicable to common stockholders – basic and diluted (unaudited) <sup>(1)</sup>	\$	\$	\$	\$	
Pro forma weighted-average number of common shares used in computing net loss per share applicable to common stockholders – basic and diluted (unaudited) <sup>(1)</sup>	_____	_____	_____	_____	_____

- (1) See Note 2 to our financial statements included elsewhere in this prospectus for an explanation of the method used to calculate the historical and pro forma basic and diluted net loss per share attributable to common stockholders.

The following table presents our summary balance sheet data as of March 31, 2014:

- on an actual basis;
- on a pro forma basis to give effect to the automatic conversion of all outstanding shares of our preferred stock into an aggregate of 21,277,722 share of common stock, which will occur automatically upon the closing of this offering, assuming an initial public offering price of \$ \_\_\_\_\_ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, and the issuance of \_\_\_\_\_ shares of common stock upon the net exercise of all outstanding warrants, which will occur upon the closing of this offering, and the resulting reclassification of the related liability for warrants to purchase redeemable securities to additional paid-in capital; and
- on a pro forma as adjusted basis to give further effect to our issuance and sale of \_\_\_\_\_ shares of common stock in this offering at an assumed initial public offering price of \$ \_\_\_\_\_ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, after deducting the estimated underwriting discount and estimated offering expenses payable by us.

	<b>As of March 31, 2014</b>		
	<b>Actual</b>	<b>Pro forma</b>	<b>Pro forma as adjusted</b>
	<b>(in thousands)</b>		
<b>Balance Sheet Data:</b>			
Cash and cash equivalents	\$ 23,698		
Total assets	25,832		
Current liabilities	5,201		
Notes payable, net of current portion	2,855		
Warrants to purchase redeemable securities	1,152		
Total stockholders' deficit	(98,130)		

Each \$1.00 increase (decrease) in the assumed initial public offering price of \$ \_\_\_\_\_ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, would increase (decrease) the pro forma as adjusted amount of each of cash and cash equivalents, total assets and total stockholders' (deficit) equity by \$ \_\_\_\_\_ million assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the estimated underwriting discount and estimated offering expenses payable by us. Similarly, each increase (decrease) of 1.0 million shares in the number of shares offered by us at the assumed initial public offering price would increase (decrease) each of cash and cash equivalents, total assets and total stockholders' deficit by approximately \$ \_\_\_\_\_ million. The pro forma and pro forma as adjusted information discussed above is illustrative only and will change depending on the actual initial public offering price and other terms of our initial public offering determined at pricing.

## RISK FACTORS

*Investing in our common stock involves a high degree of risk. You should carefully consider the risks described below, as well as the other information in this prospectus, including our financial statements and the related notes and "Management's Discussion and Analysis of Results of Operations and Financial Condition," before deciding whether to invest in our common stock. The occurrence of any of the events or developments described below could harm our business, financial condition, results of operations and growth prospects. In such an event, the market price of our common stock could decline, and you may lose all or part of your investment. Additional risks and uncertainties not presently known to us or that we currently deem immaterial also may impair our business operations.*

### Risks Related to our Business and Strategy

***We are a development-stage company and have incurred significant losses since inception and expect to incur losses in the future. We cannot be certain that we will achieve or sustain profitability.***

We have incurred significant losses since inception through March 31, 2014 and expect to incur losses in the future. Our accumulated deficit as of March 31, 2014 was \$98.1 million and we incurred net losses of \$20.6 million and \$6.9 million for the year-ended December 31, 2013 and the three months ended March 31, 2014, respectively. We expect that our losses will continue for at least the next several years as we will be required to invest significant additional funds toward development and commercialization of our technology. We also expect that our selling, general and administrative expenses will continue to increase due to the additional costs associated with establishing a dedicated sales force and other marketing efforts for any product candidates that receive marketing authorization from the FDA or regulatory clearance and the increased administrative costs associated with being a public company. Our ability to achieve or sustain profitability depends on numerous factors, many of which are beyond our control, including our ability to achieve marketing authorization from the FDA or regulatory clearance for any product candidates, the market acceptance of our product candidates, future product development and our market penetration and margins. We may never be able to generate sufficient revenue to achieve or sustain profitability.

***Our product candidates have not obtained marketing authorization from the FDA or regulatory clearance in any jurisdiction and they may never obtain such marketing authorization from the FDA or regulatory clearance.***

Our success depends on our ability to obtain marketing authorization from the FDA or regulatory clearance of T2Dx, T2Candida and other product candidates in our pipeline. If our attempts to obtain marketing authorization are unsuccessful, we may be unable to generate sufficient revenue to sustain and grow our business, and our business, financial condition and results of operations will be materially adversely affected. Our future product candidates may not be sufficiently sensitive or specific to obtain, or may prove to have other characteristics that preclude our obtaining, marketing authorization from the FDA or regulatory clearance. The process of obtaining regulatory clearance is expensive, and time-consuming and can vary substantially based upon, among other things, the type, complexity and novelty of our product candidates. Changes in regulatory policy, changes in or the enactment of additional statutes or regulations or changes in regulatory review for each submitted product application may cause delays in the clearance of, or receipt of marketing authorization from the FDA for, a product candidate or rejection of a regulatory application altogether. The FDA has substantial discretion in the *de novo* review and clearance processes and may refuse to accept any application or may decide that our data are insufficient for clearance and require additional pre-clinical, clinical or other studies. In addition, varying

interpretations of the data obtained from pre-clinical and clinical testing could delay, limit or prevent marketing authorization from the FDA or regulatory clearance of a product candidate. Any marketing authorization from the FDA or regulatory clearance we ultimately obtain may be limited or subject to restrictions or post-market commitments that render the product candidate not commercially viable.

***If T2MR, our T2Dx and T2Candida product candidates or any of our other product candidates fail to achieve and sustain sufficient market acceptance, we will not generate expected revenue and our growth prospects, operating results and financial condition may be harmed.***

Commercialization of T2MR, our T2Dx and T2Candida product candidates and any of our other product candidates in the United States and other jurisdictions in which we intend to pursue marketing authorization is a key element of our strategy. If we are not successful in conveying to hospitals that our product candidates provide equivalent or superior diagnostic information in a shorter period of time compared to existing technologies, or that these product candidates improve patient outcomes or decrease healthcare costs, we may experience reluctance, or refusal, on the part of hospitals to order, and third-party payors to pay for performing a test in which our product is utilized. For example, the T2Candida panel is likely to be labeled for the presumptive diagnosis of *Candida* infection and will require use in conjunction with other diagnostic procedures such as microbiological culture if it is authorized for marketing, meaning that our technology will complement the current standard of care, rather than serve as a replacement for the current standard of care.

These hurdles may make it difficult to demonstrate to physicians, hospitals and other healthcare providers that our diagnostic product candidates are appropriate options for diagnosing sepsis and impaired hemostasis, may be superior to available tests and may be more cost-effective than alternative technologies. Furthermore, we may encounter significant difficulty in gaining inclusion in sepsis and hemostasis treatment guidelines, gaining broad market acceptance by healthcare providers, third-party payors and patients using T2MR and our related product candidates. Furthermore, healthcare providers may have difficulty in maintaining adequate reimbursement for sepsis treatment, which may negatively impact adoption of our product candidates.

If we fail to successfully commercialize our product candidates, we may never receive a return on the significant investments in product development, sales and marketing, regulatory, manufacturing and quality assurance we have made and further investments we intend to make, and may fail to generate revenue and gain economies of scale from such investments.

***We have no experience in marketing and selling our product candidates, and if we are unable to successfully commercialize our products, our business may be adversely affected.***

We have no experience marketing and selling our product candidates. Upon receipt of marketing authorization from the FDA for our product candidates, we plan to sell through a direct sales force in the United States. Outside of the United States, we expect to sell our product candidates through distribution partners.

Our future sales of diagnostic products will depend in large part on our ability to successfully establish a product sales force in the United States. Because we have no experience in marketing and selling our product candidates in the diagnostics market, our ability to forecast demand, the infrastructure required to support such demand and the sales cycle of our potential customers is unproven. If we do not build an efficient and effective sales force targeting this market, our business and operating results may be adversely affected.

Moreover, there is no guarantee that we will be successful in attracting or retaining desirable distribution partners for markets outside the United States or that we will be able to enter into such arrangements on favorable terms. Distributors may not commit the necessary resources to market and sell our product candidates effectively or may choose to favor marketing the products of our competitors. If distributors do not perform adequately, or if we are unable to enter into effective arrangements with distributors in particular geographic areas, we may not realize international sales and growth.

***Our sales cycle will be lengthy and variable, which makes it difficult for us to forecast revenue and other operating results.***

Our sales process will involve numerous interactions with multiple individuals within an organization and will often include in-depth analysis by potential customers of our product candidates, performance of proof-of-principle studies, preparation of extensive documentation and a lengthy review process. As a result of these factors and the budget cycles of our potential customers, the time from initial contact with a customer to our receipt of a purchase order will vary significantly and could be up to 12 months or longer. Given the length and uncertainty of our anticipated sales cycle, we likely will experience fluctuations in our product sales on a period-to-period basis. Expected revenue streams are highly dependent on hospitals' adoption of our consumables-based business model, and we cannot assure you that our potential hospital clients will follow a consistent purchasing pattern. Moreover, it is difficult for us to forecast our revenue as it is dependent upon our ability to convince the medical community of the clinical utility and economic benefits of our product candidates and their potential advantages over existing diagnostic tests, the willingness of hospitals to utilize our product candidates and the cost of our product candidates to hospitals.

***We may not be able to gain the support of leading hospitals and key thought leaders, or to publish the results of our clinical trials in peer-reviewed journals, which may make it difficult to establish T2MR as a standard of care and may limit our revenue growth and ability to achieve profitability.***

Our strategy includes developing relationships with leading hospitals and key thought leaders in the industry. If these hospitals and key thought leaders determine that T2MR and related product candidates are not clinically effective or that alternative technologies are more effective, or if we encounter difficulty promoting adoption or establishing T2MR as a standard of care, our revenue growth and our ability to achieve profitability could be significantly limited.

We believe that the successful completion of our pivotal T2Dx and T2Candida clinical trial, publication of scientific and medical results in peer-reviewed journals and presentation of data at leading conferences are critical to the broad adoption of T2MR. Publication in leading medical journals is subject to a peer-review process, and peer reviewers may not consider the results of studies involving T2MR sufficiently novel or worthy of publication.

***If we are unable to successfully manage our growth, our business will be harmed.***

During the past few years, we have significantly expanded our operations. We expect this expansion to continue to an even greater degree following the closing of this offering as we seek marketing authorization from the FDA or regulatory clearance and the commercial launch of our product candidates. We intend to develop a targeted sales force in connection with our commercialization efforts. Our growth has placed and will continue to place a significant strain on our management, operating and financial systems and our sales, marketing and administrative resources. As a result of our growth, operating costs may escalate even faster than planned, and some of our internal systems and processes, including those relating to manufacturing our product



candidates, may need to be enhanced, updated or replaced. If we cannot effectively manage our expanding operations, manufacturing capacity and costs, including scaling to meet increased demand, we may not be able to continue to grow or we may grow at a slower pace than expected and our business could be adversely affected.

***Our future capital needs are uncertain, and we may need to raise additional funds in the future.***

We believe that our existing cash and cash equivalents, including the funds raised in this offering, will be sufficient to meet our anticipated cash requirements for at least the next 18 months. However, we may need to raise substantial additional capital to:

- expand our product candidate offerings;
- expand our sales and marketing infrastructure;
- increase our manufacturing capacity;
- fund our operations; and
- continue our research and development activities.

Our future funding requirements will depend on many factors, including:

- our ability to obtain marketing authorization from the FDA or clearance from the FDA to market our product candidates;
- market acceptance of our product candidates, if cleared;
- the cost and timing of establishing sales, marketing and distribution capabilities;
- the cost of our research and development activities;
- the ability of healthcare providers to obtain coverage and adequate reimbursement by third-party payors for procedures using our products;
- the cost and timing of marketing authorization or regulatory clearances;
- the cost of goods associated with our product candidates;
- the effect of competing technological and market developments; and
- the extent to which we acquire or invest in businesses, products and technologies, including entering into licensing or collaboration arrangements for product candidates, although we currently have no commitments or agreements to complete any such transactions.

We cannot assure you that we will be able to obtain additional funds on acceptable terms, or at all. If we raise additional funds by issuing equity or equity-linked securities, our stockholders may experience dilution. Debt financing, if available, may involve covenants restricting our operations or our ability to incur additional debt. Any debt or additional equity financing that we raise may contain terms that are not favorable to us or our stockholders. If we raise additional funds through collaboration and licensing arrangements with third parties, it may be necessary to relinquish some rights to our technologies or our product candidates, or grant licenses on terms that are not favorable to us. If we are unable to raise adequate funds, we may have to liquidate some or all of our assets or delay, reduce the scope of or eliminate some or all of our development programs.

If we do not have, or are not able to obtain, sufficient funds, we may be required to delay development or commercialization of our product candidates or license to third parties the rights to commercialize our product candidates or technologies that we would otherwise seek to commercialize ourselves. We also may have to reduce marketing, customer support or other

resources devoted to our product candidates or cease operations. Any of these factors could harm our operating results.

***Our future success is dependent upon our ability to create and expand a customer base for our product candidates in large hospitals.***

We anticipate marketing our initial product candidates, if they receive marketing authorization from the FDA, to the approximately 450 leading hospitals in the United States in which the patients highest at risk of suffering from sepsis are concentrated. We may not be successful in promoting adoption of our technologies in those hospitals, which would make it difficult for us to achieve broader market acceptance of our product candidates.

***We depend on a sole supplier for our particles and any interruption in our relationship with this party may adversely affect our business.***

Particles used in some of our product candidates are purchased from a sole source, GE Healthcare Bio-Sciences Corp., or GE Healthcare. If this supplier were to go out of business, discontinue manufacturing the particles we use or otherwise become unable to meet its supply commitments, the process of securing an alternate source could be delayed. Additionally, there can be no assurance that replacement particles will be available or will meet our quality control and performance requirements within an acceptable time. While we may be able to modify our product candidates to utilize a new source of particles, we would need to secure marketing authorization from the FDA for the modified product, and it could take considerable time and expense to perform the requisite tasks prior to petition for *de novo* review.

***If we are unable to recruit, train and retain key personnel, we may not achieve our goals.***

Our future success depends on our ability to recruit, train, retain and motivate key personnel, including our senior management, research and development, science and engineering, manufacturing and sales and marketing personnel. In particular, we are highly dependent on the management and business expertise of John McDonough, our President and Chief Executive Officer. We do not maintain fixed-term employment contracts or key man life insurance with any of our employees. Competition for qualified personnel is intense, particularly in the Boston, Massachusetts area. Our growth depends, in particular, on attracting, retaining and motivating highly trained sales personnel with the necessary scientific background and ability to understand our systems at a technical level. In addition, we may need additional employees at our manufacturing facilities to meet demand for our products as we scale up our sales and marketing operations. Because of the complex and technical nature of our products and the dynamic market in which we compete, any failure to attract, train, retain and motivate qualified personnel could materially harm our operating results and growth prospects.

***If our diagnostics do not perform as expected, our operating results, reputation and business will suffer.***

Our success will depend on the market's confidence that our technologies can provide reliable, high-quality diagnostic results. We believe that our customers are likely to be particularly sensitive to any defects or errors in our product candidates. If our technology failed to detect the presence of *Candida* or another bacterial pathogen and a patient subsequently suffered from sepsis, or if our technology failed to detect impaired hemostasis and a patient faced adverse consequences from the misdiagnosis, then we could face claims against us or our reputation could suffer as a result of such failures. The failure of our current or planned diagnostic product candidates to perform as expected could significantly impair our reputation and the public image of our products, and we may be subject to legal claims arising from any defects or errors.

***The diagnostics market is highly competitive. If we fail to compete effectively, our business and operating results will suffer.***

If our product candidates receive marketing authorization or are cleared or approved, we will compete with commercial diagnostics companies. We believe our principal competition will come from traditional blood culture-based diagnostic companies, including Becton Dickinson & Co. and bioMerieux, Inc., as well as companies offering post-culture species identification using both molecular and non-molecular methods, including bioMerieux, Inc., Bruker Corporation, Cepheid and Siemens AG.

Most of our expected competitors are either publicly traded, or are divisions of publicly traded companies, and have a number of competitive advantages over us, including:

- greater name and brand recognition, financial and human resources;
- established and broader product lines;
- larger sales forces and more established distribution networks;
- substantial intellectual property portfolios;
- larger and more established customer bases and relationships; and
- better established, larger scale and lower-cost manufacturing capabilities.

We believe that the principal competitive factors in all of our target markets include:

- impact of products on the health of the patient;
- impact of the use of products on the cost of treating patients in the hospital;
- cost of capital equipment;
- reputation among physicians, hospitals and other healthcare providers;
- innovation in product offerings;
- flexibility and ease-of-use;
- speed, accuracy and reproducibility of results; and
- ability to implement a consumables-based model for panels.

We believe that additional competitive factors specific to the diagnostics market include:

- breadth of clinical decisions that can be influenced by information generated by diagnostic tests;
- volume, quality and strength of clinical and analytical validation data;
- availability of adequate reimbursement for testing services and procedures for healthcare providers using our products; and
- economic benefit accrued to hospitals based on the total cost to treat a patient for a health condition.

We cannot assure you that we will effectively compete or that we will be successful in the face of increasing competition from new products and technologies introduced by our existing competitors or new companies entering our markets. In addition, we cannot assure you that our future competitors do not have or will not develop products or technologies that enable them to produce competitive products with greater capabilities or at lower costs than our product candidates. Any failure to compete effectively could materially and adversely affect our business, financial condition and operating results.

***Undetected errors or defects in our product candidates could harm our reputation, decrease market acceptance of our products or expose us to product liability claims.***

Our product candidates may contain undetected errors or defects. Disruptions or other performance problems with our product candidates may damage our customers' businesses and could harm our reputation. If that occurs, we may incur significant costs, the attention of our key personnel could be diverted or other significant customer relations problems may arise. We may also be subject to warranty and liability claims for damages related to errors or defects in our product candidates. A material liability claim or other occurrence that harms our reputation or decreases market acceptance of our product candidates could harm our business and operating results.

The sale and use of product candidates or services based on our technologies, or activities related to our research and clinical studies, could lead to the filing of product liability claims if someone were to allege that one of our product candidates contained a design or manufacturing defect. A product liability claim could result in substantial damages and be costly and time consuming to defend, either of which could materially harm our business or financial condition. We cannot assure you that our product liability insurance would adequately protect our assets from the financial impact of defending a product liability claim. Any product liability claim brought against us, with or without merit, could increase our product liability insurance rates or prevent us from securing insurance coverage in the future.

***We may not be able to develop new product candidates or enhance the capabilities of our systems to keep pace with our industry's rapidly changing technology and customer requirements, which could have a material adverse impact on our revenue, results of operations and business.***

Our industry is characterized by rapid technological changes, frequent new product introductions and enhancements and evolving industry standards. Our success depends on our ability to develop new product candidates and applications for our technology in new markets that develop as a result of technological and scientific advances, while improving the performance and cost-effectiveness of our existing product candidates. New technologies, techniques or products could emerge that might offer better combinations of price and performance than the products and systems that we plan to sell. Existing markets for our intended diagnostic product candidates are characterized by rapid technological change and innovation. It is critical to our success that we anticipate changes in technology and customer requirements and physician, hospital and healthcare provider practices and successfully introduce new, enhanced and competitive technologies to meet our prospective customers' needs on a timely and cost-effective basis. At the same time, however, we must carefully manage our introduction of new products. If potential customers believe that such products will offer enhanced features or be sold for a more attractive price, they may delay purchases until such products are available. We may also have excess or obsolete inventory of older products as we transition to new products, and we have no experience in managing product transitions. If we do not successfully innovate and introduce new technology into our anticipated product lines or manage the transitions of our technology to new product offerings, our revenue, results of operations and business will be adversely impacted.

Competitors may be able to respond more quickly and effectively than we can to new or changing opportunities, technologies, standards or customer requirements. We anticipate that we will face strong competition in the future as expected competitors develop new or improved products and as new companies enter the market with new technologies.

We are developing additional product candidates that we intend to be used with T2Dx, including T2Bacteria for detection of certain strains of sepsis-causing bacteria. We are also

developing T2Stat, to be used with our developmental T2HemoStat panel, which is designed to detect impaired hemostasis. We may have problems applying our technologies to these other areas and our new applications may not be as effective in detection as our initial applications. Any failure or delay in creating a customer base or launching new applications may compromise our ability to achieve our growth objectives.

***We currently develop, manufacture and test our product candidates and some of their components in two facilities. If these or any future facility or our equipment were damaged or destroyed, or if we experience a significant disruption in our operations for any reason, our ability to continue to operate our business could be materially harmed.***

We currently develop our diagnostic product candidates exclusively in a facility in Lexington, Massachusetts and manufacture and test some components of our product candidates at a facility in Wilmington, Massachusetts. If these or any future facility were to be damaged, destroyed or otherwise unable to operate, whether due to fire, floods, hurricanes, storms, tornadoes, other natural disasters, employee malfeasance, terrorist acts, power outages, or otherwise, or if our business is disrupted for any other reason, we may not be able to develop our product candidates or test our product candidates as promptly as our potential customers expect, or possibly not at all.

The manufacture of components of our product candidates at our Wilmington facility involves complex processes, sophisticated equipment and strict adherence to specifications and quality systems procedures. Any unforeseen manufacturing problems, such as contamination of our facility, equipment malfunction, or failure to strictly follow procedures or meet specifications, could result in delays or shortfalls in production of our products. Identifying and resolving the cause of any manufacturing issues could require substantial time and resources. If we are unable to keep up with future demand for our products by successfully manufacturing and shipping our products in a timely manner, our revenue growth could be impaired and market acceptance of our product candidates could be adversely affected.

Currently, we maintain insurance coverage totaling \$9.9 million against damage to our property and equipment, subject to deductibles and other limitations. If we have underestimated our insurance needs with respect to an interruption, or if an interruption is not subject to coverage under our insurance policies, we may not be able to cover our losses.

***We may be adversely affected by fluctuations in demand for, and prices of, rare earth materials.***

T2MR relies, in part, on rare earth materials and products. For example, T2Dx utilizes magnets which are extracted from the earth. Although there are currently multiple suppliers for these rare earth materials, changes in demand for, and the market price of, these magnets could significantly affect our ability to manufacture our T2MR-based instruments and, consequently, our profitability. Rare earth minerals and product prices may fluctuate and are affected by numerous factors beyond our control such as interest rates, exchange rates, inflation or deflation, global and regional supply and demand for rare earth minerals and products, and the political and economic conditions of countries that produce rare earth minerals and products.

***Provisions of our debt instruments may restrict our ability to pursue our business strategies.***

Our credit facilities require us, and any debt instruments we may enter into in the future may require us, to comply with various covenants that limit our ability to, among other things:

- convey, lease, sell, transfer, assign or otherwise dispose of assets;
- change the nature or location of our business;

- complete mergers or acquisitions;
- incur indebtedness;
- encumber assets;
- pay dividends or make other distributions to holders of our capital stock (other than dividends paid solely in common stock);
- make specified investments;
- change certain key management personnel; and
- engage in material transactions with our affiliates.

These restrictions could inhibit our ability to pursue our business strategies. If we default under our credit facilities, and such event of default was not cured or waived, the lenders could terminate commitments to lend and cause all amounts outstanding with respect to the debt to be due and payable immediately, which in turn could result in cross defaults under other debt instruments. Our assets and cash flow may not be sufficient to fully repay borrowings under all of our outstanding debt instruments if some or all of these instruments are accelerated upon a default.

We may incur additional indebtedness in the future. The debt instruments governing such indebtedness could contain provisions that are as, or more, restrictive than our existing debt instruments. If we are unable to repay, refinance or restructure our indebtedness when payment is due, the lenders could proceed against the collateral granted to them to secure such indebtedness or force us into bankruptcy or liquidation.

***As part of our current business model, we will seek to enter into strategic relationships with third parties to develop and commercialize diagnostic products.***

We intend to enter into strategic relationships with third parties for future diagnostic products. However, there is no assurance that we will be successful in doing so. Establishing strategic relationships can be difficult and time-consuming. Discussions may not lead to agreements on favorable terms, if at all. To the extent we agree to work exclusively with a party in a given area, our opportunities to collaborate with others or develop opportunities independently could be limited. Potential collaborators or licensors may elect not to work with us based upon their assessment of our financial, regulatory or intellectual property position. Even if we establish new strategic relationships, they may never result in the successful development or commercialization of future products.

***Acquisitions or joint ventures could disrupt our business, cause dilution to our stockholders and otherwise harm our business.***

We may acquire other businesses, products or technologies as well as pursue strategic alliances, joint ventures, technology licenses or investments in complementary businesses. We have not made any acquisitions to date, and our ability to do so successfully is unproven. Any of these transactions could be material to our financial condition and operating results and expose us to many risks, including:

- disruption in our relationships with future customers or with current or future distributors or suppliers as a result of such a transaction;
- unanticipated liabilities related to acquired companies;
- difficulties integrating acquired personnel, technologies and operations into our existing business;

- diversion of management time and focus from operating our business to acquisition integration challenges;
- increases in our expenses and reductions in our cash available for operations and other uses;
- possible write-offs or impairment charges relating to acquired businesses; and
- inability to develop a sales force for any additional product candidates.

Foreign acquisitions involve unique risks in addition to those mentioned above, including those related to integration of operations across different cultures and languages, currency risks and the particular economic, political and regulatory risks associated with specific countries.

Also, the anticipated benefit of any acquisition may not materialize. Future acquisitions or dispositions could result in potentially dilutive issuances of our equity securities, the incurrence of debt, contingent liabilities or amortization expenses or write-offs of goodwill, any of which could harm our financial condition. We cannot predict the number, timing or size of future joint ventures or acquisitions, or the effect that any such transactions might have on our operating results.

***If treatment guidelines for sepsis change, or the standard of care evolves, we may need to redesign and seek new marketing authorization from the FDA for our product candidates.***

If treatment guidelines for sepsis change, or the standard of care evolves, we may need to redesign and seek new marketing authorization from the FDA for our product candidates. For example, current treatment recommendations for *Candida* infections, including those published by the *Infectious Diseases Society of America*, call for identical treatment for two species of *Candida*, *C. albicans* and *C. tropicalis*, and identical treatment for two other species, *C. glabrata* and *C. krusei*. Although our T2Candida test is technically capable of distinguishing among these species, we have designed it based on current treatment guidelines and therefore it does not distinguish between two species if they are subject to the same recommended treatment. Our petition to the FDA requesting an order authorizing us to market T2Dx and T2Candida in the United States is also based on current treatment guidelines. If treatment guidelines change so that different treatments become desirable for the two species currently subject to the same recommended treatment, the clinical utility of our T2Candida test could be diminished and we could be required to seek marketing authorization from the FDA for a revised test that would distinguish between the two species.

***Our ability to use net operating losses to offset future taxable income may be subject to certain limitations.***

As of December 31, 2013, we had federal net operating loss carryforwards, or NOLs, to offset future taxable income of \$56.0 million, which are available to offset future taxable income, if any, through 2023. Under Section 382 of the Internal Revenue Code, a corporation that undergoes an "ownership change" is subject to limitations on its ability to utilize its NOLs to offset future taxable income. We may have already experienced one or more ownership changes. Depending on the timing of any future utilization of our carryforwards, we may be limited as to the amount that can be utilized each year as a result of such previous ownership changes. In addition, future changes in our stock ownership, including this or future offerings, as well as other changes that may be outside of our control, could result in additional ownership changes under Section 382 of the Internal Revenue Code. Our NOLs may also be impaired under similar provisions of state law. We have recorded a full valuation allowance related to our NOLs and other deferred tax assets due to the uncertainty of the ultimate realization of the future benefits of those assets.

***We face risks related to handling hazardous materials and other regulations governing environmental safety.***

Our operations are subject to complex and stringent environmental, health, safety and other governmental laws and regulations that both public officials and private individuals may seek to enforce. Our activities that are subject to these regulations include, among other things, our use of hazardous materials and the generation, transportation and storage of waste. We may not be in material compliance with these regulations. Existing laws and regulations may also be revised or reinterpreted, or new laws and regulations may become applicable to us, whether retroactively or prospectively, that may have a negative effect on our business and results of operations. It is also impossible to eliminate completely the risk of accidental environmental contamination or injury to individuals. In such an event, we could be liable for any damages that result, which could adversely affect our business.

***We expect to generate a portion of our future revenue internationally and are subject to various risks relating to our international activities which could adversely affect our operating results.***

We believe that a portion of our future revenue will come from international sources as we implement and expand overseas operations. Engaging in international business involves a number of difficulties and risks, including:

- required compliance with existing and changing foreign healthcare and other regulatory requirements and laws, such as those relating to patient privacy or handling of bio-hazardous waste;
- required compliance with anti-bribery laws, such as the U.S. Foreign Corrupt Practices Act and U.K. Bribery Act, data privacy requirements, labor laws and anti-competition regulations;
- export or import restrictions;
- various reimbursement and insurance regimes;
- laws and business practices favoring local companies;
- longer payment cycles and difficulties in enforcing agreements and collecting receivables through certain foreign legal systems;
- political and economic instability;
- potentially adverse tax consequences, tariffs, customs charges, bureaucratic requirements and other trade barriers;
- foreign exchange controls;
- difficulties and costs of staffing and managing foreign operations; and
- difficulties protecting or procuring intellectual property rights.

As we expand internationally, our results of operations and cash flows will become increasingly subject to fluctuations due to changes in foreign currency exchange rates. Our expenses are generally denominated in the currencies in which our operations are located, which is in the United States. If the value of the U.S. dollar increases relative to foreign currencies in the future, in the absence of a corresponding change in local currency prices, our future revenue could be adversely affected as we convert future revenue from local currencies to U.S. dollars.

If we dedicate resources to our international operations and are unable to manage these risks effectively, our business, operating results and prospects will suffer.



***Our employees, independent contractors, principal investigators, consultants, commercial partners and vendors may engage in misconduct or other improper activities, including non-compliance with regulatory standards and requirements.***

We are exposed to the risk of fraud or other misconduct by our employees, independent contractors, principal investigators, consultants, commercial partners and vendors. Misconduct by these parties could include intentional, reckless or negligent failures to: comply with the regulations of the FDA and other similar foreign regulatory bodies; provide true, complete and accurate information to the FDA and other similar regulatory bodies; comply with manufacturing standards we have established; comply with healthcare fraud and abuse laws and regulations in the United States and similar foreign fraudulent misconduct laws; or report financial information or data accurately, or disclose unauthorized activities to us. These laws may impact, among other things, our activities with principal investigators and research subjects, as well as our sales, marketing and education programs. In particular, the promotion, 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 may restrict or prohibit a wide range of pricing, discounting, marketing and promotion, sales commission, customer incentive programs and other business arrangements. Such misconduct could also involve the improper use of information obtained in the course of clinical studies, which could result in regulatory sanctions and cause serious harm to our reputation. We currently have a code of conduct applicable to all of our employees, but it is not always possible to identify and deter employee misconduct, and our code of conduct and the other 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 civil, criminal and administrative penalties, damages, monetary fines, disgorgement, individual imprisonment, possible exclusion from participation in Medicare, Medicaid and other federal healthcare programs, contractual damages, reputational harm, diminished profits and future earnings, and curtailment of our operations, any of which could adversely affect our ability to operate our business and our results of operations. Any of these actions or investigations could result in substantial costs to us, including legal fees, and divert the attention of management from operating our business.

***We depend on our information technology systems, and any failure of these systems could harm our business.***

We depend on information technology systems for significant elements of our operations, including the storage of data and retrieval of critical business information. We have installed, and expect to expand, a number of enterprise software systems that affect a broad range of business processes and functional areas, including systems handling human resources, financial controls and reporting, contract management, regulatory compliance and other infrastructure operations. These information technology systems may support a variety of functions, including laboratory operations, test validation, quality control, customer service support, billing and reimbursement, research and development activities and general administrative activities. Our clinical trial data is currently stored on a third party's servers.

Information technology systems are vulnerable to damage from a variety of sources, including network failures, malicious human acts and natural disasters. Moreover, despite network security and back-up measures, some of our servers are potentially vulnerable to physical or electronic break-ins, computer viruses and similar disruptive problems. Despite the precautionary measures we have taken to prevent unanticipated problems that could affect our information technology

systems, failures or significant downtime of our information technology systems or those used by our third-party service providers could prevent us from conducting our general business operations. Any disruption or loss of information technology systems on which critical aspects of our operations depend could have an adverse effect on our business. Further, we store highly confidential information on our information technology systems, including information related to clinical data, product designs and plans to create new products. If our servers or the servers of the third party on which our clinical data is stored are attacked by a physical or electronic break-in, computer virus or other malicious human action, our confidential information could be stolen or destroyed.

#### **Risks Related to Government Regulation and Diagnostic Product Reimbursement**

***Approval and clearance by the FDA and foreign regulatory authorities for our diagnostic tests will take significant time and require significant research, development and clinical study expenditures and ultimately may not succeed.***

Before we begin to label and market our product candidates for use as clinical diagnostics in the United States, we are required to obtain clearance from the FDA under Section 510(k) of the Federal Food, Drug and Cosmetic Act, approval of a *de novo* reclassification petition for our product, or approval of pre-market approval, or PMA, application from the FDA, unless an exemption from pre-market review applies. In the 510(k) clearance process, the FDA must determine that a proposed device is "substantially equivalent" to a device legally on the market, known as a "predicate" device, with respect to intended use, technology and safety and effectiveness, in order to clear the proposed device for marketing. Clinical data is sometimes required to support substantial equivalence. The PMA pathway requires an applicant to demonstrate the safety and effectiveness of the device based, in part, on extensive data, including, but not limited to, technical, preclinical, clinical trial, manufacturing and labeling data. The PMA process is typically required for devices that are deemed to pose the greatest risk, such as life-sustaining, life-supporting or implantable devices. However, some devices are automatically subject to the PMA pathway regardless of the level of risk they pose because they have not previously been classified into a lower risk class by the FDA. Manufacturers of these devices may request that FDA review such devices in accordance with the *de novo* classification procedure, which allows a manufacturer whose novel device would otherwise require the submission and approval of a PMA prior to marketing to request down-classification of the device on the basis that the device presents low or moderate risk. If the FDA agrees with the down-classification, the applicant will then receive approval to market the device. This device type can then be used as a predicate device for future 510(k) submissions. We intend to utilize the *de novo* classification procedures to seek marketing authorization for T2Dx and T2Candida. The process of obtaining regulatory clearances or approvals, or completing the *de novo* classification process, to market a medical device can be costly and time consuming, and we may not be able to successfully obtain pre-market reviews on a timely basis, if at all.

If the FDA requires us to go through a lengthier, more rigorous examination for our product candidates than we had expected, our product introductions or modifications could be delayed or canceled, which could cause our launch to be delayed or, in the future, our sales to decline. In addition, the FDA may determine that our product candidates require the more costly, lengthy and uncertain PMA process. For example, if the FDA disagrees with our determination that the *de novo* classification procedures are the appropriate path to obtain marketing authorizations for T2Dx and T2Candida product candidates, the FDA may require us to submit a PMA application, which is generally more costly and uncertain and can take from one to three years, or longer, from the time the application is submitted to the FDA until an approval is obtained. Further, even with respect to those future products where a PMA is not required, we cannot assure you that we will be able to obtain 510(k) clearances with respect to those products.

The FDA can delay, limit or deny clearance or approval of a device for many reasons, including:

- we may not be able to demonstrate to the FDA's satisfaction that our product candidates are safe and effective, sensitive and specific diagnostic tests, for their intended users;
- the data from our pre-clinical studies and clinical trials may be insufficient to support clearance or approval, where required; and
- the manufacturing process or facilities we use may not meet applicable requirements.

In addition, the FDA may change its clearance and approval policies, adopt additional regulations or revise existing regulations, or take other actions which may prevent or delay approval or clearance of our products under development or impact our ability to modify our currently approved or cleared products on a timely basis. For example, in response to industry and healthcare provider concerns regarding the predictability, consistency and rigor of the 510(k) regulatory pathway, the FDA initiated an evaluation of the program, and in January 2011, announced several proposed actions intended to reform the review process governing the clearance of medical devices. The FDA intends these reform actions to improve the efficiency and transparency of the clearance process, as well as bolster patient safety. In addition, as part of the Food and Drug Administration Safety and Innovation Act, or FDASIA, Congress reauthorized the Medical Device User Fee Amendments with various FDA performance goal commitments and enacted several "Medical Device Regulatory Improvements" and miscellaneous reforms which are further intended to clarify and improve medical device regulation both pre- and post-approval. Any delay in, or failure to receive or maintain, clearance or approval for our product candidates could prevent us from generating revenue from these product candidates and adversely affect our business operations and financial results. Additionally, the FDA and other regulatory authorities have broad enforcement powers. Regulatory enforcement or inquiries, or other increased scrutiny on us, could affect the perceived safety and efficacy of our product candidates and dissuade our customers from using our product candidates, if and when they are authorized for marketing.

Obtaining FDA clearance, *de novo* down classification, or approval for diagnostics can be expensive and uncertain, and generally takes from several months to several years, and generally requires detailed and comprehensive scientific and clinical data. Notwithstanding the expense, these efforts may never result in FDA clearance. Even if we were to obtain regulatory clearance, it may not be for the uses we believe are important or commercially attractive, in which case we would not be permitted to market our product for those uses.

Even if granted, a 510(k) clearance, *de novo* down classification, or PMA approval for any future product would likely place substantial restrictions on how our device is marketed or sold, and the FDA will continue to place considerable restrictions on our products and operations. For example, the manufacture of medical devices must comply with the FDA's Quality System Regulation, or QSR. In addition, manufacturers must register their manufacturing facilities, list the products with the FDA, and comply with requirements relating to labeling, marketing, complaint handling, adverse event and medical device reporting, reporting of corrections and removals, and import and export. The FDA monitors compliance with the QSR and these other requirements through periodic inspections. If our facilities or those of our manufacturers or suppliers are found to be in violation of applicable laws and regulations, or if we or our manufacturers or suppliers fail to take satisfactory corrective action in response to an adverse inspection, the regulatory authority could take enforcement action, including any of the following sanctions:

- untitled letters, warning letters, fines, injunctions, consent decrees and civil penalties;
- customer notifications or repair, replacement, refunds, detention or seizure of our products;

- operating restrictions or partial suspension or total shutdown of production;
- refusing or delaying requests for 510(k) marketing clearance or PMA approvals of new products or modified products;
- withdrawing 510(k) marketing clearances or PMA approvals that have already been granted;
- refusing to provide Certificates for Foreign Government;
- refusing to grant export approval for our products; or
- pursuing criminal prosecution.

Any of these sanctions could impair our ability to produce our product candidates in a cost-effective and timely manner in order to meet our customers' demands, and could have a material adverse effect on our reputation, business, results of operations and financial condition. We may also be required to bear other costs or take other actions that may have a negative impact on our future sales and our ability to generate profits.

Sales of our diagnostic product candidates outside the United States are subject to foreign regulatory requirements governing clinical studies, vigilance reporting, marketing approval, manufacturing, product licensing, pricing and reimbursement. These regulatory requirements vary greatly from country to country. As a result, the time required to obtain approvals outside the United States may differ from that required to obtain FDA clearance and we may not be able to obtain foreign regulatory approvals on a timely basis or at all. Clearance by the FDA does not ensure approval by regulatory authorities in other countries, and approval by one foreign regulatory authority does not ensure clearance or approval by regulatory authorities in other countries or by the FDA. Foreign regulatory authorities could require additional testing. Failure to comply with these regulatory requirements, or to obtain required clearances or approvals, could impair our ability to commercialize our diagnostic product candidates outside of the United States.

***Modifications to our products, if cleared or approved, may require new 510(k) clearances or pre-market approvals, or may require us to cease marketing or recall the modified products until clearances are obtained.***

Any modification to a device authorized for marketing that could significantly affect its safety or effectiveness, or that would constitute a major change in its intended use, design or manufacture, requires a new 510(k) clearance or, possibly, approval of a PMA. The FDA requires every manufacturer to make this determination in the first instance, but the FDA may review any manufacturer's decision. The FDA may not agree with our decisions regarding whether new clearances or approvals are necessary. If the FDA disagrees with our determination and requires us to submit new 510(k) notifications or PMAs for modifications to previously cleared products for which we conclude that new clearances or approvals are unnecessary, we may be required to cease marketing or to recall the modified product until we obtain clearance or approval, and we may be subject to significant regulatory fines or penalties.

Furthermore, the FDA's ongoing review of the 510(k) program may make it more difficult for us to make modifications to any products for which we obtain clearance, either by imposing more strict requirements on when a manufacturer must submit a new 510(k) for a modification to a previously cleared product, or by applying more onerous review criteria to such submissions. For example, in accordance with FDASIA, the FDA was obligated to prepare a report for Congress on the FDA's approach for determining when a new 510(k) will be required for modifications or changes to a previously cleared device. The FDA recently issued this report and indicated that manufacturers should continue to adhere to the FDA's 1997 Guidance on this topic when making a determination as to whether or not a new 510(k) is required for a change or modification to a

device. However, the practical impact of the FDA's continuing scrutiny of the 510(k) program remains unclear.

***If we obtain marketing authorization from the FDA, a recall of our products, either voluntarily or at the direction of the FDA, or the discovery of serious safety issues with our products that leads to corrective actions, could have a significant adverse impact on us.***

The FDA and similar foreign governmental authorities have the authority to require the recall of commercialized products in the event of material deficiencies or defects in design or manufacture of a product or in the event that a product poses an unacceptable risk to health. Manufacturers may, under their own initiative, recall a product if any material deficiency in a device is found. A government-mandated or voluntary recall by us or one of our distributors could occur as a result of an unacceptable risk to health, component failures, manufacturing errors, design or labeling defects or other deficiencies and issues. Under the FDA's medical device reporting regulations, we are required to report to the FDA any incident in which our product may have caused or contributed to a death or serious injury or in which our product malfunctioned and, if the malfunction were to recur, would likely cause or contribute to death or serious injury. Repeated product malfunctions may result in a voluntary or involuntary product recall. Recalls of any of our products would divert managerial and financial resources and have an adverse effect on our reputation, results of operations and financial condition, which could impair our ability to produce our products in a cost-effective and timely manner in order to meet our customers' demands. Depending on the corrective action we take to redress a product's deficiencies or defects, the FDA may require, or we may decide, that we will need to obtain new approvals or clearances for the device before we may market or distribute the corrected device. Seeking such approvals or clearances may delay our ability to replace the recalled devices in a timely manner. Moreover, if we do not adequately address problems associated with our devices, we may face additional regulatory enforcement action, including FDA warning letters, product seizure, injunctions, administrative penalties, or civil or criminal fines. We may also be required to bear other costs or take other actions that may have a negative impact on our sales as well as face significant adverse publicity or regulatory consequences, which could harm our business, including our ability to market our products in the future.

Any adverse event involving our products could result in future voluntary corrective actions, such as recalls or customer notifications, or agency action, such as inspection, mandatory recall or other enforcement action. Any corrective action, whether voluntary or involuntary, as well as defending ourselves in a lawsuit, would require the dedication of our time and capital, distract management from operating our business and may harm our reputation and financial results.

***We may rely on third parties to conduct future studies of our product candidates that may be required by the FDA or other regulatory authorities, and those third parties may not perform satisfactorily.***

We may rely on third parties, including medical investigators, to conduct such studies. Our reliance on these third parties for clinical development activities will reduce our control over these activities. These third parties may not complete activities on schedule or conduct studies in accordance with regulatory requirements or our study design. If applicable, our reliance on third parties that we do not control will not relieve us of any applicable requirement to prepare, and ensure compliance with, various procedures required under good clinical practices. If these third parties do not successfully carry out their contractual duties or regulatory obligations or meet expected deadlines, if the third parties need to be replaced or if the quality or accuracy of the data they obtain is compromised due to their failure to adhere to our clinical protocols or regulatory requirements or for other reasons, our studies may be extended, delayed, suspended or

terminated, and we may not be able to obtain marketing authorization from the FDA or regulatory clearance for our product candidates.

***Our future customers are highly dependent on payment from third-party payors, and inadequate coverage and reimbursement for diagnostic tests using our technology or procedures using our product candidates and the commercial success of our diagnostic product candidates would be compromised.***

Successful commercialization of our diagnostic product candidates depends, in large part, to the extent the costs of our product candidates purchased by our customers are reimbursed, either separately or through bundled payment, by third-party private and governmental payors, including Medicare, Medicaid, managed care organizations and private insurance plans. There is significant uncertainty surrounding third-party coverage and reimbursement for the use of tests that incorporate new technology, such as T2MR.

Hospitals, clinical laboratories and other healthcare provider customers that may purchase our product candidates, if approved, generally bill various third-party payors to cover all or a portion of the costs and fees associated with diagnostic tests, including the cost of the purchase of our product candidates. We currently expect that the majority of our diagnostic tests will be performed in a hospital inpatient setting, where governmental payors, such as Medicare, generally reimburse hospitals a single bundled payment that is based on the patients' diagnosis under a classification system known as the Medicare severity diagnosis-related groups, classification for all items and services provided to the patient during a single hospitalization, regardless of whether our diagnostic tests are performed during such hospitalization. To the extent that our diagnostic tests will be performed in an outpatient setting, our product candidates may be eligible for separate payment, for example, under the Clinical Laboratory Fee Schedule using existing Current Procedural Terminology codes. Third-party payors may deny coverage, however, if they determine that the diagnostic tests using our products are not cost-effective compared to the use of alternative testing methods as determined by the payor, or is deemed by the third-party payor to be experimental or medically unnecessary. Even if third-party payors make coverage and reimbursement available, such reimbursement may not be adequate or these payors' reimbursement policies may have an adverse effect on our business, results of operations, financial condition and cash flows.

Our customers' access to adequate coverage and reimbursement for inpatient procedures using our product candidates by government and private insurance plans is central to the acceptance of our products. We cannot predict at this time the adequacy of payments, whether made separately in an outpatient setting or with a bundled payment amount in an inpatient setting. We may be unable to sell our products, if approved, on a profitable basis if third-party payors deny coverage or reduce their current levels of payment, or if our costs of production increase faster than increases in reimbursement levels.

In many countries outside of the United States, various coverage, pricing and reimbursement approvals are required. We expect that it will take several years to establish broad coverage and reimbursement for testing services based on our products with payors in countries outside of the United States, and our efforts may not be successful.

***We may be subject, directly or indirectly, to federal and state healthcare fraud and abuse laws and other federal and state laws applicable to our business activities. If we are unable to comply, or have not complied, with such laws, we could face substantial penalties.***

Our operations are, and will continue to be, directly or indirectly subject to various federal and state fraud and abuse laws, including, without limitation, the federal and state anti-kickback statutes, physician payment transparency laws and false claims laws. These laws may impact, among other things, our proposed sales and marketing and education programs and require us to implement additional internal systems for tracking certain marketing expenditures and reporting them to government authorities. In addition, we may be subject to patient privacy and security 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 Anti-Kickback Statute, which prohibits, among other things, persons or entities from knowingly or willfully soliciting, receiving, offering or paying any remuneration, directly or indirectly, overtly or covertly, in cash or in kind, in return for or to induce either the referral of an individual for, or the purchase, lease, order or recommendation of, any good, facility, item or services for which payment may be made, in whole or in part, under a federal healthcare program such as the Medicare and Medicaid programs;
- federal false claims laws, which prohibit, among other things, individuals or entities from knowingly presenting, or causing to be presented, claims for payment from or approval by a governmental payor program that are false or fraudulent;
- the federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, which established new federal crimes for, among other things, knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program or making materially false statements in connection with the delivery of or payment for healthcare benefits, items or services;
- HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act, which governs the conduct of certain electronic healthcare transactions and protects the security and privacy of protected health information;
- the federal physician sunshine requirements under the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act, or collectively, ACA, which requires manufacturers of drugs, devices, biologicals, and medical supplies to report annually to the CMS information related to payments and other transfers of value to physicians and teaching hospitals, and ownership and investment interests held by physicians and their immediate family members; and
- state or foreign 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 payor, including commercial insurers; state laws that require device companies to comply with the industry's voluntary compliance guidelines and the applicable compliance guidance promulgated by the federal government, or otherwise restrict payments that may be made to healthcare providers and other potential referral sources; state laws that require manufacturers to report information related to payments and other transfers of value to physicians, hospitals and other healthcare providers or marketing expenditures; and state laws governing the privacy and security of health information in certain circumstances, many of which differ from each other in significant ways, thus complicating compliance efforts.

Because of the breadth of these laws and the narrowness of the statutory exceptions and safe harbors available, it is possible that some of our business activities could be subject to challenge under one or more of such laws. In addition, recent healthcare reforms have strengthened these

laws. For example, the ACA, among other things, amends the intent requirement of the federal anti-kickback statute. A person or entity no longer needs to have actual knowledge of the statute or specific intent to violate it. The ACA codified case law by amending the False Claims Act, such that violations of the anti-kickback statute are now deemed violations of the False Claims Act.

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 administrative, civil and criminal penalties, damages, fines, disgorgement, the curtailment or restructuring of our operations, the exclusion from participation in federal and state healthcare programs and individual imprisonment, any of which could adversely affect our ability to operate our business and our results of operations.

***Healthcare policy changes, including legislation reforming the United States healthcare system, may have a material adverse effect on our financial condition and results of operations.***

The ACA, enacted in March 2010, makes changes that are expected to significantly impact the pharmaceutical and medical device industries and clinical laboratories. Since 2013, certain medical device manufacturers have had to pay an excise tax in an amount equal to 2.3% of the price for which such manufacturer sells its medical devices. We expect that the excise tax will apply to some or all of our diagnostic product candidates. The ACA also mandates a reduction in payments for clinical laboratory services paid under the Medicare Clinical Laboratory Fee Schedule, or CLFS, of 1.75% for the years 2011 through 2015 and a productivity adjustment to the CLFS, further reducing payment rates. Some commercial payors are guided by the CLFS in establishing their reimbursement rates. Clinicians may decide not to order clinical diagnostic tests if third-party payments are inadequate, and we cannot predict whether third-party payors will offer adequate reimbursement for procedures utilizing our product candidates to make them commercially attractive. To the extent that the diagnostic tests using our product candidates are performed on an outpatient basis, these or any future proposed or mandated reductions in payments under the CLFS may apply to some or all of the clinical laboratory tests that our diagnostics customers may use our technology to deliver to Medicare beneficiaries and may indirectly reduce demand for our diagnostic product candidates.

Other significant measures contained in the ACA include coordination and promotion of research on comparative clinical effectiveness of different technologies and procedures, initiatives to revise Medicare payment methodologies, such as bundling of payments across the continuum of care by providers and physicians, and initiatives to promote quality indicators in payment methodologies. The ACA also includes significant new fraud and abuse measures, including required disclosures of financial arrangements with physician customers, lower thresholds for violations and increasing potential penalties for such violations. In addition, the ACA establishes an Independent Payment Advisory Board, or IPAB, to reduce the per capita rate of growth in Medicare spending. The IPAB has broad discretion to propose policies to reduce healthcare expenditures, which may have a negative impact on payment rates for services, including our tests. The IPAB proposals may impact payments for clinical laboratory services that our diagnostics customers use our technology to deliver beginning in 2016, and for hospital services beginning in 2020, and may indirectly reduce demand for our diagnostic product candidates. To the extent that the reimbursement amounts for sepsis decrease, it could adversely affect the market acceptance and hospital adoption of our technologies.

In addition, other legislative changes have been proposed and adopted in the United States since the ACA was enacted. On August 2, 2011, the Budget Control Act of 2011, among other things, created measures for spending reductions by Congress. A Joint Select Committee on Deficit Reduction, tasked with recommending a targeted deficit reduction of at least \$1.2 trillion for the



years 2013 through 2021, was unable to reach required goals, thereby triggering the legislation's automatic reduction to several government programs. This includes aggregate reductions to Medicare payments to providers of 2% per fiscal year, which went into effect on April 1, 2013 and will stay in effect through 2014 unless additional Congressional action is taken. On January 2, 2013, the American Taxpayer Relief Act of 2012 was signed into law, which, among other things, further reduced Medicare payments to several providers, including hospitals, imaging centers and cancer treatment centers, and increased the statute of limitations period for the government to recover overpayments to providers from three to five years.

The full impact on our business of the ACA and the other new laws is uncertain. Nor is it clear whether other legislative changes will be adopted or how such changes would affect our industry generally or our ability to successfully commercialize our product candidates, if approved. Changes in healthcare policy, such as the creation of broad test utilization limits for diagnostic products in general or requirements that Medicare patients pay for portions of clinical laboratory tests or services received, could substantially impact the sales of our tests, increase costs and divert management's attention from our business. Such co-payments by Medicare beneficiaries for laboratory services were discussed as possible cost savings for the Medicare program as part of the debt ceiling budget discussions in mid-2011 and may be enacted in the future. In addition, sales of our tests outside of the United States will subject us to foreign regulatory requirements, which may also change over time.

We cannot predict whether future healthcare initiatives will be implemented at the federal or state level or in countries outside of the United States in which we may do business, or the effect any future legislation or regulation will have on us. The taxes imposed by the new federal legislation and the expansion in government's effect on the United States healthcare industry may result in decreased profits to us, lower reimbursements by payors for our product candidates or reduced medical procedure volumes, all of which may adversely affect our business, financial condition and results of operations.

#### **Risks Related to Intellectual Property**

***If we are unable to protect our intellectual property effectively, our business would be harmed.***

We rely on patent protection as well as trademark, copyright, trade secret protection and confidentiality agreements to protect the intellectual property rights related to our proprietary technologies. The strength of patents in our field involves complex legal and scientific questions. Uncertainty created by these questions means that our patents may provide only limited protection and may not adequately protect our rights or permit us to gain or keep any competitive advantage. As of March 31, 2014, we owned or exclusively licensed 19 issued U.S. patents and approximately 30 pending U.S. patent applications, including provisional and non-provisional filings. We also owned or licensed approximately 59 pending and granted counterpart applications worldwide. If we fail to protect our intellectual property, third parties may be able to compete more effectively against us and we may incur substantial litigation costs in our attempts to recover or restrict use of our intellectual property.

We cannot assure you that any of our currently pending or future patent applications will result in issued patents with claims that cover our products and technologies in the United States or in other foreign countries, and we cannot predict how long it will take for such patents to be issued. Further, issuance of a patent is not conclusive as to its inventorship or scope, and there is no guarantee that our issued patents will include claims that are sufficiently broad to cover our technologies or to provide meaningful protection from our competitors. Further, we cannot be certain that all relevant prior art relating to our patents and patent applications has been found. Accordingly, there may be prior art that can invalidate our issued patents or prevent a patent from

issuing from a pending patent application, at all or with claims that have a scope broad enough to provide meaningful protection from our competitors.

Even if patents do successfully issue and even if such patents cover our products and technologies, we cannot assure you that other parties will not challenge the validity, enforceability or scope of such issued patents in the United States and in foreign countries, including by proceedings such as reexamination, inter-partes review, interference, opposition, or other patent office or court proceedings. Moreover, we cannot assure you that if such patents were challenged in court or before a regulatory agency that the patent claims will be held valid, enforceable, to be sufficiently broad to cover our technologies or to provide meaningful protection from our competitors. Nor can we assure you that the court or agency will uphold our ownership rights in such patents. Accordingly, we cannot guarantee that we will be successful in defending challenges made against our patents and patent applications. Any successful third-party challenge to our patents could result in the unenforceability or invalidity of such patents, or narrowing of claim scope, such that we could be deprived of patent protection necessary for the successful commercialization of our products and technologies, which could adversely affect our business.

Furthermore, even if they are unchallenged, our patents and patent applications may not adequately protect our intellectual property, provide exclusivity for our products and technologies or prevent others from designing around our claims. Others may independently develop similar or alternative products and technologies or duplicate any of our products and technologies. These products and technologies may not be covered by claims of issued patents owned by our company. Any of these outcomes could impair our ability to prevent competition from third parties, which may have an adverse impact on our business. In addition, competitors could purchase our products and attempt to replicate some or all of the competitive advantages we derive from our development efforts, willfully infringe our intellectual property rights, design around our protected technology or develop their own competitive technologies that fall outside of the protections provided by our intellectual property rights. If our intellectual property, including licensed intellectual property, does not adequately protect our market position against competitors' products and methods, our competitive position could be adversely affected, as could our business.

Further, if we encounter delays in regulatory approvals, the period of time during which we could market a product candidate under patent protection could be reduced. Since patent applications in the United States and most other countries are confidential for a period of time after filing, and some remain so until issued, we cannot be certain that we were the first to make the inventions covered by our pending patent applications, or that we were the first to file any patent application related to a product candidate. Furthermore, if third parties have filed such patent applications, an interference proceeding in the United States can be initiated by a third party to determine who was the first to invent any of the subject matter covered by the patent claims of our applications. In addition, patents have a limited lifespan. In the United States, the natural expiration of a patent is generally 20 years after it is filed. Various extensions may be available; however the life of a patent, and the protection it affords, is limited.

Further, the laws of some foreign countries do not protect proprietary rights to the same extent or in the same manner as the laws of the United States. As a result, we may encounter significant problems in protecting and defending our intellectual property both in the United States and abroad. If we are unable to prevent material disclosure of the non-patented intellectual property related to our technologies to third parties, and there is no guarantee that we will have any such enforceable trade secret protection, we may not be able to establish or maintain a competitive advantage in our market, which could materially adversely affect our business, results of operations and financial condition.

***We depend on certain technologies that are licensed to us. We do not control the intellectual property rights covering these technologies and any loss of our rights to these technologies or the rights licensed to us could prevent us from selling our products.***

We are a party to a number of license agreements under which we are granted rights to intellectual property that is important to our business and we expect that we may need to enter into additional license agreements in the future. We rely on these licenses in order to be able to use various proprietary technologies that are material to our business, including an exclusive license to patents and patent applications from Massachusetts General Hospital, or MGH, and non-exclusive licenses from other third parties related to materials used currently in our research and development activities, and which we intend to use in our future commercial activities. Our rights to use these technologies and employ the inventions claimed in the licensed patents are subject to the continuation of and our compliance with the terms of those licenses. Our existing license agreements impose, and we expect that future license agreements will impose on us, various diligence obligations, payment of milestones or royalties and other obligations. If we fail to comply with our obligations under these agreements, or we are subject to a bankruptcy, the licensor may have the right to terminate the license, in which event we would not be able to market products covered by the license.

As we have done previously, we may need to obtain licenses from third parties to advance our research or allow commercialization of our products and technologies, and we cannot provide any assurances that third-party patents do not exist which might be enforced against our current products and technologies or future products in the absence of such a license. We may fail to obtain any of these licenses on commercially reasonable terms, if at all. Even if we are able to obtain a license, it may be non-exclusive, thereby giving our competitors access to the same technologies licensed to us. In that event, we may be required to expend significant time and resources to develop or license replacement technology. If we are unable to do so, we may be unable to develop or commercialize the affected products and technologies, which could materially harm our business and the third parties owning such intellectual property rights could seek either an injunction prohibiting our sales, or, with respect to our sales, an obligation on our part to pay royalties or other forms of compensation.

In some cases, we do not control the prosecution, maintenance, or filing of the patents that are licensed to us, or the enforcement of these patents against infringement by third parties. Some of our patents and patent applications were not filed by us, but were either acquired by us or are licensed from third parties. Thus, these patents and patent applications were not drafted by us or our attorneys, and we did not control or have any input into the prosecution of these patents and patent applications either prior to our acquisition of, or entry into a license with respect to, such patents and patent applications. With respect to the patents we license from MGH, although we have rights under our agreement to provide input into prosecution and maintenance activities, and are actively involved in such ongoing prosecution, ultimately MGH retains ultimate control over such prosecution and maintenance. We therefore cannot be certain that the same attention was given, or will continue to be given, to the drafting and prosecution of these patents and patent applications as we may have exercised if we had control over the drafting and prosecution of such patents and patent applications, or that we will agree with decisions taken by MGH in relation to ongoing prosecution activities. We also cannot be certain that drafting or prosecution of the patents and patent applications licensed to us have been or will be conducted in compliance with applicable laws and regulations or will result in valid and enforceable patents. Further, as MGH retains the right to enforce these patents against third-party infringement, we cannot be certain that MGH will elect to enforce these patents to the extent that we would choose to do so, or in a way that will ensure that we retain the rights we currently have under our license with MGH. If MGH fails to properly

enforce the patents subject to our license in the event of third-party infringement, our ability to retain our competitive advantage with respect to our product candidates may be materially affected.

In addition, certain of the patents we have licensed relate to technology that was developed with U.S. government grants. Federal regulations impose certain domestic manufacturing requirements and other obligations with respect to some of our products embodying these patents.

Licensing of intellectual property is of critical importance to our business and involves complex legal, business and scientific issues. Disputes may arise between us and our licensors regarding intellectual property subject to a license agreement, including:

- the scope of rights granted under the license agreement and other interpretation-related issues;
- whether and the extent to which our technology and processes infringe on intellectual property of the licensor that is not subject to the licensing agreement;
- our right to sublicense patent and other rights to third parties under collaborative development relationships;
- our diligence obligations with respect to the use of the licensed technology in relation to our development and commercialization of our products and technologies, and what activities satisfy those diligence obligations; and
- the ownership of inventions and know-how resulting from the joint creation or use of intellectual property by our licensors and us and our partners.

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 products and technologies.

***We may be involved in lawsuits to protect or enforce our patents and proprietary rights, to determine the scope, enforceability and validity of others' proprietary rights, or to defend against third-party claims of intellectual property infringement, any of which could be time-intensive and costly and may adversely impact our business or stock price.***

Our commercial success depends in part on our avoiding infringement of the patents and proprietary rights of third parties. There is a substantial amount of litigation, both within and outside the United States, involving patent and other intellectual property rights in the medical device and diagnostics industries, including patent infringement lawsuits, interferences, oppositions and inter partes review proceedings before the U.S. Patent and Trademark Office, or U.S. PTO, and corresponding foreign patent offices. While we have not received notices of claims of infringement or misappropriation or misuse of other parties' proprietary rights in the past, we may from time to time receive such notices in the future. Some of these claims may lead to litigation. Third parties may assert that we are employing their proprietary technology without authorization. There may be third-party patents or patent applications with claims to materials, methods of manufacture or methods of use of our products and technologies. Because patent applications can take many years to issue, third parties may have currently pending patent applications which may later result in issued patents that our products and technologies may infringe, or which such third parties claim are infringed by the use of our technologies. We cannot assure you that we will prevail in such actions, or that other actions alleging misappropriation or misuse by us of third-party trade secrets or infringement by us of third-party patents, trademarks or other rights, or challenging the validity of our patents, trademarks or other rights, will not be asserted against us.

Litigation may be necessary for us to enforce our patent and proprietary rights or to determine the scope, enforceability or validity of the proprietary rights of others. There has been substantial

litigation and other proceedings regarding patent and other intellectual property rights in the medical diagnostics industry. Third parties may assert that we are employing their proprietary technology without authorization. Many of our competitors have significantly larger and more mature patent portfolios than we currently have. In addition, future litigation may involve patent holding companies or other adverse patent owners who have no relevant product revenue and against whom our own patents may provide little or no deterrence or protection. Parties making claims against us for infringement of their intellectual property rights may obtain injunctive or other equitable relief, which could effectively block our ability to further develop and commercialize one or more of our products and technologies. Further, defense of such claims in litigation, regardless of merit, could result in substantial legal fees and could adversely affect the scope of our patent protection, and would be a substantial diversion of employee, management and technical personnel resources from our business. The outcome of any litigation or other proceeding is inherently uncertain and might not be favorable to us. In the event of a successful claim of infringement against us, we could be required to redesign our infringing products or obtain a license from such third party to continue developing and commercializing our products and technology. However, we may not be able to obtain any required license on commercially reasonable terms, or at all. Even if we are able to obtain a license, it may be non-exclusive, thereby giving our competitors access to the same technologies licensed to us. We could therefore incur substantial costs for licenses obtained from third parties, if such licenses were available at all, which could negatively affect our gross margins, or prevent us from commercializing our products and technologies. Further, we could encounter delays in product introductions, or interruptions in product sales, as we develop alternative methods or products to avoid infringing third-party rights. In addition, if we resort to legal proceedings to enforce our intellectual property rights or to determine the validity, enforceability or scope of the intellectual property or other proprietary rights of others, the proceedings could be burdensome and expensive, even if we were to prevail. Any litigation that may be necessary in the future could result in substantial costs and diversion of resources and could have a material adverse effect on our business, operating results or financial condition. Further, if the scope of protection provided by our patents or patent applications is threatened or reduced as a result of litigation, it could discourage third parties from entering into collaborations with us that are important to the commercialization of our products.

We cannot guarantee that we have identified all relevant third-party intellectual property rights that may be infringed by our technology, nor is there any assurance that patents will not issue in the future from currently pending applications that may be infringed by our technology or product candidates. We are aware of third parties that have issued patents and pending patent applications in the United States, Europe, Canada, and other jurisdictions in the field of magnetic resonance devices and methods for analyte detection. We currently monitor the intellectual property positions of some companies in this field that are potential competitors or are conducting research and development in areas that relate to our business, and will continue to do so as we progress the development and commercialization of our product candidates. We cannot assure you that third parties will not in the future have issued patents or other intellectual property rights that may be infringed by the practice of our technology or the commercialization of our product candidates.

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

In addition, certain of our agreements with suppliers, distributors, customers and other entities with whom we do business require us to defend or indemnify these parties to the extent they

become involved in infringement claims relating to our technologies or products, or rights licensed to them by us. We could also voluntarily agree to defend or indemnify third parties in instances where we are not obligated to do so if we determine it would be important to our business relationships. If we are required or agree to defend or indemnify any of these third parties in connection with any infringement claims, we could incur significant costs and expenses that could adversely affect our business, operating results, or financial condition.

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

In addition to pursuing patents on our technology, we also rely on trade secret protection and confidentiality agreements to protect proprietary know-how that is not patentable or that we elect not to patent, processes for which patents are difficult to enforce and any other elements of our products and technologies and discovery and development processes that involve proprietary know-how, information or technology that is not covered by patents, in order to maintain our competitive position. We take steps to protect our intellectual property, proprietary technologies and trade secrets, in part, by entering into confidentiality agreements with our employees, consultants, corporate partners, advisors and other third parties. We also enter into confidentiality and invention or patent assignment agreements with our employees and consultants that obligate them to assign to us any inventions developed in the course of their work for us. We also seek to preserve the integrity and confidentiality of our data and trade secrets by maintaining physical security of our premises and physical and electronic security of our information technology systems. While we have confidence in these individuals, organizations and systems, agreements or security measures may be breached, and we may not have adequate remedies for any breach. In addition, our trade secrets may otherwise become known or be independently discovered by competitors. Our agreements may not be enforceable or may not provide meaningful protection for our trade secrets or other proprietary information in the event of unauthorized use or disclosure or other breaches of the agreements, and we may not be able to prevent such unauthorized disclosure. Monitoring unauthorized disclosure is difficult, and we do not know whether the steps we have taken to prevent such disclosure are, or will be, adequate. If we were to enforce a claim that a third party had illegally obtained and was using our trade secrets, it would be expensive and time consuming, and the outcome would be unpredictable. Enforcing a claim that a party illegally disclosed or misappropriated a trade secret is difficult, expensive and time-consuming, and the outcome is unpredictable. In addition, courts outside the United States may be less willing to protect trade secrets. If any of the technology or information that we protect as trade secrets were to be lawfully obtained or independently developed by a competitor, we would have no right to prevent them from using that technology or information to compete with us. Misappropriation or unauthorized disclosure of our trade secrets could impair our competitive position and may have a material adverse effect on our business. Additionally, if the steps taken to maintain our trade secrets are deemed inadequate, we may have insufficient recourse against third parties for misappropriating the trade secret. 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.

***We may be subject to damages resulting from claims that we or our employees, consultants or independent contractors have wrongfully used or disclosed confidential information of third parties or that our employees have wrongfully used or disclosed alleged trade secrets of their former employers.***

Many of our employees were previously employed at universities or other medical device companies, including our competitors or potential competitors. Although we seek to protect our ownership of intellectual property rights by ensuring that our agreements with our employees, collaborators and other third parties with whom we do business include provisions requiring such parties to assign rights in inventions to us, we may also be subject to claims that former employees, collaborators or other third parties have an ownership interest in our patents or other intellectual property. Although no claims against us are currently pending, we may be subject to claims that these employees or we have inadvertently or otherwise used or disclosed trade secrets or other proprietary information of our employees' former employers, or we may be subject to ownership disputes in the future arising, for example, from conflicting obligations of consultants or others who are involved in developing our products and technologies. Litigation may be necessary to defend against these claims. If we fail in defending such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel, which could hamper our ability to commercialize certain potential products, which could severely harm our business. Even if we are successful in defending against these claims, litigation could result in substantial costs and be a distraction to management.

***We may be subject to claims challenging the inventorship or ownership of our patents and other intellectual property.***

We may also be subject to claims that former employees, collaborators or other third parties have an ownership interest in our patents or other intellectual property. We may be subject to ownership disputes in the future arising, for example, from conflicting obligations of consultants or others who are involved in developing our products and technologies. Litigation may be necessary to defend against these and other claims challenging inventorship or ownership. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights, such as exclusive ownership of, or right to use, valuable intellectual property. Such an outcome could have a material adverse effect on our business. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to management and other employees.

***Recent patent reform legislation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents.***

On September 16, 2011, the Leahy-Smith America Invents Act, or the Leahy-Smith Act, was signed into law. The Leahy-Smith Act includes a number of significant changes to U.S. patent law, including provisions that affect the way patent applications will be prosecuted and may also affect patent litigation. The U.S. PTO is currently developing regulations and procedures to govern administration of the Leahy-Smith Act, and many of the substantive changes to patent law associated with the Leahy-Smith Act, and in particular, the first to file provisions, were enacted March 16, 2013. However, it is not clear what, if any, impact the Leahy-Smith Act will have on the operation of our business. However, the Leahy-Smith Act and its implementation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents, all of which could have a material adverse effect on our business and financial condition.

**Obtaining and maintaining our patent protection depends on compliance with various procedural, document submission, fee payment and other requirements imposed by governmental patent agencies, and our patent protection could be reduced or eliminated for non-compliance with these requirements.**

Periodic maintenance fees, renewal fees, annuity fees and various other governmental fees on patents and applications will be due to be paid to the U.S. PTO and various governmental patent agencies outside of the United States in several stages over the lifetime of the patents and applications. We have systems in place to remind us to pay these fees, and we employ an outside firm and rely on our outside counsel to pay these fees due to non-U.S. patent agencies. The U.S. PTO and various foreign governmental patent agencies require compliance with a number of procedural, documentary, fee payment and other provisions during the patent process. We employ reputable law firms and other professionals to help us comply, and in many cases, an inadvertent lapse can be cured by payment of a late fee or by other means in accordance with the applicable rules, however there are situations in which noncompliance can result in abandonment or lapse of a patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. In such an event, competitors might be able to enter the market earlier than would otherwise have been the case.

**If our trademarks and trade names are not adequately protected, we may not be able to build name recognition in our markets of interest, and our business may be adversely affected.**

We have not yet registered certain of our trademarks, including T2Biosystems, T2Candida and T2HemoStat, in all of our potential markets, including in international markets. If we apply to register these trademarks, our applications may not be allowed for registration, and our registered trademarks may not be maintained or enforced. In addition, opposition or cancellation proceedings may be filed against our trademark applications and registrations, and our trademarks may not survive such proceedings. If we do not secure registrations for our trademarks, we may encounter more difficulty in enforcing them against third parties than we otherwise would. Our registered or unregistered trademarks or trade names may be challenged, infringed, circumvented or declared generic or determined to be infringing on other marks. We may not be able to protect our rights to these trademarks and trade names, which we need to build name recognition by potential partners or customers in our markets of interest. Over the long term, if we are unable to establish name recognition based on our trademarks and trade names, then we may not be able to compete effectively and our business may be adversely affected.

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

The laws of some non-U.S. countries do not protect intellectual property rights to the same extent as the laws of the United States, and many companies have encountered significant problems in protecting and defending such rights in foreign jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents and other intellectual property protection, particularly those relating to technologies relating to biotechnology, which could make it difficult for us to stop the infringement of our patents. Proceedings to enforce our patent rights in foreign jurisdictions could result in substantial cost and divert our efforts and attention from other aspects of our business. Also, because we have not pursued patents in all countries, there exist jurisdictions where we are not protected against third parties using our proprietary technologies. Further, compulsory licensing laws or limited enforceability of patents against government agencies or contractors in certain countries may limit our remedies or reduce the value of our patents in those countries.



**We use third-party software that may be difficult to replace or cause errors or failures of our product candidates that could lead to lost customers or harm to our reputation.**

We use software licensed from third parties in our product candidates. In the future, this software may not be available to us on commercially reasonable terms, or at all. Any loss of the right to use any of this software could result in delays in the production of our product candidates until equivalent technology is either developed by us, or, if available, is identified, obtained and integrated with our technologies and products, which could harm our business. In addition, any errors or defects in, or failures of, such third-party software could result in errors or defects in the operation of our product candidates or cause our product candidates to fail, which could harm our business and reputation and be costly to correct. Many of the licensors of the software we use in our product candidates attempt to impose limitations on their liability for such errors, defects or failures. If enforceable, such limitations would require us to bear the liability for such errors, defects or failures, which could harm our reputation and increase our operating costs.

**Intellectual property rights do not necessarily address all potential threats to our competitive advantage.**

The degree of future protection afforded by our intellectual property rights is uncertain because intellectual property rights have limitations, and may not adequately protect our business, or permit us to maintain our competitive advantage. The following examples are illustrative:

- others may be able to make diagnostic products and technologies that are similar to our product candidates but that are not covered by the claims of the patents that we own or have exclusively licensed;
- we or our licensors or future collaborators might not have been the first to make the inventions covered by the issued patent or pending patent application that we own or have exclusively licensed;
- we or our licensors or future collaborators might not have been the first to file patent applications covering certain of our inventions;
- others may independently develop similar or alternative technologies or duplicate any of our technologies without infringing our intellectual property rights;
- it is possible that our pending patent applications will not lead to issued patents;
- issued patents that we own or have exclusively licensed may be held invalid or unenforceable, as a result of legal challenges by our competitors;
- our competitors might conduct research and development activities in countries where we do not have patent rights and then use the information learned from such activities to develop competitive products for sale in our major commercial markets;
- we may not develop additional proprietary technologies that are patentable; and
- the patents of others may have an adverse effect on our business.

Should any of these events occur, they could significantly harm our business, results of operations and prospects.

## Risks Related to Our Common Stock and this Offering

**One of the underwriters has an interest in this offering beyond the customary underwriting discounts and, accordingly, this offering will be made in accordance with FINRA Rule 5121 with Morgan Stanley & Co. LLC acting as "qualified independent underwriter".**

Certain affiliates of Goldman, Sachs & Co., an underwriter of this offering, beneficially own % of our common stock as of March 31, 2014, and are together entitled to designate one member of our board of directors prior to the closing of this offering. As a result, Goldman, Sachs & Co. is deemed to have a "conflict of interest" within the meaning of FINRA Rule 5121. Accordingly, this offering will be made in compliance with the applicable provisions of FINRA Rule 5121. FINRA Rule 5121 prohibits Goldman, Sachs & Co. from making sales to discretionary accounts without the prior written approval of the account holder and requires that a "qualified independent underwriter," as defined in FINRA Rule 5121, participate in the preparation of the registration statement and exercise its usual standards of due diligence with respect thereto. Morgan Stanley & Co. LLC has agreed to act as "qualified independent underwriter" for this offering. Although the "qualified independent underwriter" has participated in the preparation of this registration statement and conducted due diligence, we cannot assure you that this will adequately address any potential conflict of interest. See "Underwriting (Conflict of Interest)".

**After this offering, our executive officers, directors and principal stockholders, if they choose to act together, will continue to have the ability to control all matters submitted to stockholders for approval.**

Upon the closing of this offering, our executive officers, directors and stockholders who owned more than 5% of our outstanding common stock before this offering and their respective affiliates will, in the aggregate, hold shares representing approximately % of our outstanding voting stock. As a result, if these stockholders were to choose to act together, they would be able to control or significantly influence all matters submitted to our stockholders for approval, as well as our management and affairs. For example, these persons, if they choose to act together, would control or significantly influence the election of directors and approval of any merger, consolidation or sale of all or substantially all of our assets. This concentration of ownership control may:

- delay, defer or prevent a change in control;
- entrench our management and the board of directors; or
- impede a merger, consolidation, takeover or other business combination involving us that other stockholders may desire.

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

The initial public offering price of our common stock will be substantially higher than the net tangible book value per share of our common stock. Therefore, if you purchase shares of our common stock in this offering, you will pay a price per share that substantially exceeds our net tangible book value per share after this offering. To the extent shares subsequently are issued under outstanding stock options, you will incur further dilution. Based on an assumed initial public offering price of \$ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, you will experience immediate dilution of \$ per share, representing the difference between our pro forma net tangible book value per share, after giving effect to this offering, and the assumed initial public offering price. In addition, purchasers of common stock in this offering will have contributed approximately % of the aggregate price paid by all

purchasers of our stock but will own only approximately        % of our common stock outstanding after this offering.

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

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

***The price of our common stock may be volatile and fluctuate substantially, which could result in substantial losses for purchasers of our common stock in this offering.***

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

- 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;
- development of new technologies that may address our markets and may make our technology less attractive;
- changes in physician, hospital or healthcare provider practices that may make our product candidates less useful;
- announcements by us, our partners or our competitors of significant acquisitions, strategic partnerships, joint ventures, collaborations or capital commitments;
- developments or disputes concerning patent applications, issued patents or other proprietary rights;
- the recruitment or departure of key personnel;
- failure to meet or exceed financial estimates and projections of the investment community or that we provide to the public;
- actual or anticipated changes in estimates as to financial results, development timelines or recommendations by securities analysts;
- variations in our financial results or those of companies that are perceived to be similar to us;
- changes to reimbursement levels by commercial third-party payors and government payors, including Medicare, and any announcements relating to reimbursement levels;
- general economic, industry and market conditions; and
- the other factors described in this "Risk Factors" section.

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

Our management will have broad discretion in the application of the net proceeds from this offering and could spend the proceeds in ways that do not improve our results of operations or enhance the value of our common stock. We intend to use the net proceeds from this offering to commercialize our T2Dx and T2Candida product candidates if they receive marketing authorization from the FDA to fund development of our other product candidates and for working capital and general corporate purposes. However, our use of these proceeds may differ substantially from our current plans. The failure by our management to apply these funds effectively could result in financial losses that could have a material adverse effect on our business and cause the price of our common stock to decline. Pending their use, we may invest the net proceeds from this offering in a manner that does not produce income or that loses value.

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

Sales of a substantial number of shares of our common stock in the public market, or the perception in the market that the holders of a large number of shares intend to sell shares, could reduce the market price of our common stock. After this offering, we will have outstanding \_\_\_\_\_ shares of common stock based on the number of shares outstanding as of March 31, 2014 and the conversion of our redeemable convertible preferred stock into 21,277,722 shares of common stock. This includes the shares that we are selling in this offering, which may be resold in the public market immediately without restriction, unless purchased by our affiliates or existing stockholders. The remaining shares are currently restricted as a result of securities laws or lock-up agreements but will become eligible to be sold at various times after this offering. Moreover, after this offering, holders of an aggregate of \_\_\_\_\_ shares of our common stock will have rights, subject to specified conditions, to require us to file registration statements covering their shares or to include their shares in registration statements that we may file for ourselves or other stockholders. We also intend to register all shares of common stock that we may issue under our equity compensation plans. Once we register these shares, they can be freely sold in the public market upon issuance, subject to volume limitations applicable to affiliates and the lock-up agreements described in the "Underwriting (Conflict of Interest)" section of this prospectus.

***We are an "emerging growth company," and the reduced disclosure requirements applicable to emerging growth companies may make our common stock less attractive to investors.***

We are an "emerging growth company," as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act, and may remain an emerging growth company for up to five years. For so long as we remain an emerging growth company, we are permitted and intend to rely on exemptions from certain disclosure requirements that are applicable to other public companies that are not emerging growth companies. These exemptions include:

- being permitted to provide 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;
- not being required to comply with the auditor attestation requirements in the assessment of our internal control over financial reporting;
- not being required to comply 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;

- reduced disclosure obligations regarding executive compensation; and
- exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved.

We have taken advantage of reduced reporting burdens in this prospectus. In particular, in this prospectus, we have provided only two years of audited financial statements and have not included all of the executive compensation related information that would be required if we were not an emerging growth company. We cannot predict whether investors will find our common stock less attractive if we 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 reduced or more volatile. In addition, the JOBS Act provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards. This allows an emerging growth company to delay the adoption of these accounting standards until they would otherwise apply to private companies. We have irrevocably elected not to avail ourselves of this exemption and, therefore, we will be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies.

***We will incur increased costs as a result of operating as a public company, and our management will be required to devote substantial time to new compliance initiatives and corporate governance practices.***

As a public company, and particularly after we are no longer an emerging growth company, we will incur significant legal, accounting and other expenses that we did not incur as a private company. The Sarbanes-Oxley Act of 2002, the Dodd-Frank Wall Street Reform and Consumer Protection Act, the listing requirements of The NASDAQ Global Market and other applicable securities rules and regulations impose various requirements on public companies, including establishment and maintenance of effective disclosure and financial controls and corporate governance practices. Our management and other personnel will need to devote a substantial amount of time to these compliance initiatives. Moreover, these rules and regulations will increase our legal and financial compliance costs and will make some activities more time-consuming and costly. For example, we expect that these rules and regulations may make it more difficult and more expensive for us to obtain director and officer liability insurance, which in turn could make it more difficult for us to attract and retain qualified members of our board of directors.

We are evaluating these rules and regulations, and cannot predict or estimate the amount of additional costs we may incur or the timing of such costs. These rules and regulations are often 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.

Pursuant to Section 404 of the Sarbanes-Oxley Act of 2002, or Section 404, we will be required to furnish a report by our management on our internal control over financial reporting. However, while we remain an emerging growth company, we will not be required to include an attestation report on internal control over financial reporting issued by our independent registered public accounting firm. To achieve compliance with Section 404 within the prescribed period, we will be engaged in a process to document and evaluate our internal control over financial reporting, which is both costly and challenging. In this regard, we will need to continue to dedicate internal resources, potentially engage outside consultants and adopt a detailed work plan to assess and

document the adequacy of internal control over financial reporting, continue steps to improve control processes as appropriate, validate through testing that controls are functioning as documented and implement a continuous reporting and improvement process for internal control over financial reporting. Despite our efforts, there is a risk that we will not be able to conclude, within the prescribed timeframe or at all, that our internal control over financial reporting is effective as required by Section 404. If we identify one or more material weaknesses, it could result in an adverse reaction in the financial markets due to a loss of confidence in the reliability of our financial statements.

***If securities or industry analysts do not publish research or reports about our business, or if they issue an adverse or misleading opinion regarding our stock, our stock price and trading volume could decline.***

The trading market for our common stock will be influenced by the research and reports that industry or securities analysts publish about us or our business. We do not currently have and may never obtain research coverage by securities and industry analysts. If no or few securities or industry analysts commence coverage of us, the trading price for our stock would be negatively impacted. In the event we obtain securities or industry analyst coverage, if any of the analysts who cover us issue an adverse or misleading opinion regarding us, our business model, our intellectual property or our stock performance, or if our regulatory clearance timelines, clinical trial results or operating results fail to meet the expectations of analysts, our stock price would likely decline. If one or more of these analysts cease coverage of us or fail to publish reports on us regularly, we could lose visibility in the financial markets, which in turn could cause our stock price or trading volume to decline.

***Provisions in our restated certificate of incorporation and amended and restated bylaws and under Delaware law could make an acquisition of our company, which may be beneficial to our stockholders, more difficult and may prevent attempts by our stockholders to replace or remove our current management.***

Provisions in our restated certificate of incorporation and our amended and restated bylaws that will become effective upon the closing of this offering may discourage, delay or prevent a merger, acquisition or other change in control of our company that stockholders may consider favorable, including transactions in which you might otherwise receive a premium for your shares. These provisions could also limit the price that investors might be willing to pay in the future for shares of our common stock, thereby depressing the market price of our common stock. In addition, because our board of directors is responsible for appointing the members of our management team, these provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our board of directors. Among other things, these provisions include those establishing:

- a classified board of directors with three-year staggered terms, which may delay the ability of stockholders to change the membership of a majority of our board of directors;
- no cumulative voting in the election of directors, which limits the ability of minority stockholders to elect director candidates;
- the exclusive right of our board of directors to elect a director to fill a vacancy created by the expansion of the board of directors or the resignation, death or removal of a director, which prevents stockholders from filling vacancies on our board of directors;
- the ability of our board of directors to authorize the issuance of shares of preferred stock and to determine the terms of those shares, including preferences and voting rights, without

stockholder approval, which could be used to significantly dilute the ownership of a hostile acquirer;

- the ability of our board of directors to alter our amended and restated bylaws without obtaining stockholder approval;
- the required approval of the holders of at least two-thirds of the shares entitled to vote at an election of directors to adopt, amend or repeal our amended and restated bylaws or repeal the provisions of our restated certificate of incorporation regarding the election and removal of directors;
- a prohibition on stockholder action by written consent, which forces stockholder action to be taken at an annual or special meeting of our stockholders;
- the requirement that a special meeting of stockholders may be called only by the chief executive officer, the president or the board of directors, which may delay the ability of our stockholders to force consideration of a proposal or to take action, including the removal of directors; and
- advance notice procedures that stockholders must comply with in order to nominate candidates to our board of directors or to propose matters to be acted upon at a stockholders' meeting, which may discourage or deter a potential acquirer from conducting a solicitation of proxies to elect the acquirer's own slate of directors or otherwise attempting to obtain control of us.

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

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

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

***We could be subject to securities class action litigation.***

In the past, securities class action litigation has often been brought against a company following a decline in the market price of its securities. If we face such litigation, it could result in substantial costs and a diversion of management's attention and resources, which could harm our business.

## SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements. All statements other than statements of historical facts contained in this prospectus, including statements regarding our future results of operations and financial position, business strategy, prospective products and product candidates, their expected performance and impact on healthcare costs, marketing authorization from the FDA, regulatory clearance, reimbursement for our product candidates, research and development costs, timing of regulatory filings, timing and likelihood of success, plans and objectives of management for future operations and future results of anticipated products, are forward-looking statements. These statements involve known and unknown risks, uncertainties and other important factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements.

In some cases, you can identify forward-looking statements by terms such as "may," "will," "should," "expect," "plan," "anticipate," "could," "intend," "target," "project," "contemplate," "believe," "estimate," "predict," "potential" or "continue" or the negative of these terms or other similar expressions. The forward-looking statements in this prospectus are only predictions. We have based these forward-looking statements largely on our current expectations and projections about future events and financial trends that we believe may affect our business, financial condition and results of operations. These forward-looking statements speak only as of the date of this prospectus and are subject to a number of risks, uncertainties and assumptions described under the sections in this prospectus entitled "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" and elsewhere in this prospectus. These forward looking statements are subject to numerous risks, including, without limitation, the following:

- our status as a development-stage company and our expectation to incur losses in the future;
- our ability to obtain marketing authorization from the FDA or regulatory clearance for our product candidates in the United States or any other jurisdiction;
- the market acceptance of our T2MR technology;
- our ability to timely and successfully develop and commercialize our existing and future product candidates;
- the length of our anticipated sales cycle;
- our ability to gain the support of leading hospitals and key thought leaders and publish the results of our clinical trials in peer-reviewed journals;
- our future capital needs and our need to raise additional funds;
- the performance of our diagnostics;
- our ability to successfully manage our growth;
- our ability to compete in the highly competitive diagnostics market;
- our ability to protect and enforce our intellectual property rights, including our trade secret-protected proprietary rights in T2MR; and
- federal, state, and foreign regulatory requirements, including FDA regulation of our product candidates.

Because forward-looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified and some of which are beyond our control, you should not



rely on these forward-looking statements as predictions of future events. The events and circumstances reflected in our forward-looking statements may not be achieved or occur and actual results could differ materially from those projected in the forward-looking statements. Moreover, we operate in an evolving environment. New risk factors and uncertainties may emerge from time to time, and it is not possible for management to predict all risk factors and uncertainties. As a result of these factors, we cannot assure you that the forward-looking statements in this prospectus will prove to be accurate. Except as required by applicable law, we do not plan to publicly update or revise any forward-looking statements contained herein, whether as a result of any new information, future events, changed circumstances or otherwise.

You should read this prospectus and the documents that we reference in this prospectus and have filed as exhibits to the registration statement, of which this prospectus is a part, completely and with the understanding that our actual future results may be materially different from what we expect. We qualify all of our forward-looking statements by these cautionary statements.

#### **INDUSTRY AND OTHER DATA**

We obtained the industry, statistical and market data in this prospectus from our own internal estimates and research as well as from industry and general publications and research, surveys and studies conducted by third parties. Industry publications, studies and surveys generally state that they have been obtained from sources believed to be reliable, although they do not guarantee the accuracy or completeness of such information. While we believe that each of these studies and publications is reliable, we have not independently verified statistical, market and industry data from third-party sources. While we believe our internal company research is reliable and the market definitions are appropriate, neither such research nor these definitions have been verified by any independent source.

## USE OF PROCEEDS

We estimate that the net proceeds from our issuance and sale of \_\_\_\_\_ shares of our common stock in this offering will be \$ \_\_\_\_\_ million (or \$ \_\_\_\_\_ million if the underwriters exercise in full their option to purchase additional shares), assuming an initial public offering price of \$ \_\_\_\_\_ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, and after deducting the estimated underwriting discount and estimated offering expenses payable by us.

Each \$1.00 increase (decrease) in the assumed initial public offering price of \$ \_\_\_\_\_ per share would increase (decrease) the net proceeds to us from this offering by \$ \_\_\_\_\_ 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 the estimated underwriting discount and estimated offering expenses payable by us. Each increase (decrease) of 1.0 million in the number of shares we are offering would increase (decrease) the net proceeds to us from this offering, after deducting the estimated underwriting discount and estimated offering expenses payable by us, by \$ \_\_\_\_\_ million, assuming the assumed initial public offering price stays the same.

We currently intend to use the net proceeds from this offering as follows:

- approximately \$ \_\_\_\_\_ million to \$ \_\_\_\_\_ million to fund our research and development programs, which broaden our instrument and diagnostic applications utilizing T2MR technology;
- approximately \$ \_\_\_\_\_ million to \$ \_\_\_\_\_ million to obtain marketing authorization from the FDA for, and support the commercialization of, our T2Dx and T2Candida product candidates, including the hiring of additional sales, marketing and manufacturing personnel and related support costs associated with sales, marketing and manufacturing activities; and
- the balance for other general corporate purposes, including general and administrative expenses, working capital, capital expenditures to add equipment for laboratory and manufacturing-related purposes and to support expansion of facilities, and the repayment of indebtedness.

Our expected use of net proceeds from this offering represents our current intentions based upon our present plans and business condition. As of the date of this prospectus, we cannot predict with complete certainty all of the particular uses for the net proceeds from this offering or the actual amounts that we will spend on the uses set forth above. We may also use a portion of the net proceeds to in-license, acquire, or invest in additional businesses, technologies, products or assets, although currently we have no specific agreements, commitments or understandings in this regard. The amounts and timing of our actual expenditures will depend on numerous factors, including the progress of our clinical trials, our ability to obtain marketing authorization from the FDA for our product candidates and other development and commercialization efforts for T2Dx and T2Candida, as well as the amount of cash used in our operations. We may find it necessary or advisable to use the net proceeds from this offering for other purposes, and we will have broad discretion in the application of the net proceeds.

Pending the uses described above, we plan to invest the net proceeds from this offering in short-and intermediate-term, interest-bearing obligations, investment-grade instruments, certificates of deposit or direct or guaranteed obligations of the U.S. government.

## DIVIDEND POLICY

We have never declared or paid any cash dividends on our capital stock. We intend to retain future earnings, if any, to finance the operation and expansion of our business and do not anticipate paying any cash dividends in the foreseeable future. In addition, our ability to pay cash dividends is currently prohibited by the terms of our credit facility with Silicon Valley Bank, unless Silicon Valley Bank provides prior written consent.

**CAPITALIZATION**

The following table sets forth our capitalization as of March 31, 2014:

- on an actual basis;
- on a pro forma basis to reflect the automatic conversion of all outstanding shares of our preferred stock into 21,277,722 shares of common stock upon the closing of this offering, the issuance of        shares of our common stock upon the net exercise of all outstanding warrants, which will occur upon the closing of this offering, assuming an initial public offering price of \$        per share, which is the midpoint of the price range set forth on the cover page of this prospectus, and the resulting reclassification of the related liability for warrants to purchase redeemable securities to additional paid-in capital; and
- on a pro forma as adjusted basis to give further effect to our issuance and sale of        shares of common stock in this offering at an assumed initial public offering price of \$        per share, which is the midpoint of the price range set forth on the cover page of this prospectus, after deducting the estimated underwriting discount and estimated offering expenses payable by us.

Our capitalization following the closing of this offering will depend on the actual initial public offering price and other terms of this offering determined at pricing. You should read this information in conjunction with our financial statements and the related notes appearing at the end of this prospectus and the "Management's Discussion and Analysis of Financial Condition and Results of Operations" section and other financial information contained in this prospectus.

	<b>As of March 31, 2014</b>		
	<b>Actual</b>	<b>Pro Forma</b>	<b>Pro Forma As Adjusted</b>
	(in thousands)		
Notes payable, net of current portion	\$ 2,855	\$	\$
Warrants to purchase redeemable securities	1,152		
<b>Redeemable convertible preferred stock:</b>			
Series A-1 redeemable convertible preferred stock, \$0.001 par value; 282,849 shares authorized, issued and outstanding, actual; no shares authorized, issued or outstanding, pro forma or pro forma as adjusted	885		
Series A-2 redeemable convertible preferred stock, \$0.001 par value; 1,717,728 shares authorized, 1,703,959 shares issued and outstanding, actual; no shares authorized, issued or outstanding, pro forma or pro forma as adjusted	7,824		
Series B redeemable convertible preferred stock, \$0.001 par value; 3,523,765 shares authorized, 3,249,877 shares issued and outstanding, actual; no shares authorized, issued or outstanding, pro forma or pro forma as adjusted	15,681		
Series C redeemable convertible preferred stock, \$0.001 par value; 4,085,125 shares authorized, 4,055,125 shares issued and outstanding, actual; no shares authorized, issued or outstanding, pro forma or pro forma as adjusted	19,401		

	As of March 31, 2014	
	Actual	Pro Forma As Adjusted (in thousands)
Series D redeemable convertible preferred stock, \$0.001 par value; 5,074,725 shares authorized, 5,054,945 shares issued and outstanding, actual; no shares authorized, issued or outstanding, pro forma or pro forma as adjusted	27,822	
Series E redeemable convertible preferred stock, \$0.001 par value; 6,960,967 shares authorized, 6,930,967 shares issued and outstanding, actual; no shares authorized, issued or outstanding, pro forma or pro forma as adjusted	43,106	
Common stock, par value \$0.001 per share; 28,254,907 shares authorized, 2,400,422 shares issued and outstanding, actual; shares authorized, pro forma and pro forma as adjusted; shares issued and outstanding, pro forma; shares issued and outstanding, pro forma as adjusted	2	
Preferred stock, par value \$0.001 per share; no shares authorized, issued and outstanding, actual; shares authorized, no shares issued and outstanding, pro forma and pro forma as adjusted		
Additional paid-in capital	—	
Deficit accumulated during the development stage	(98,132)	
Total stockholders' (deficit) equity	(98,130)	
Total capitalization	\$ 20,596	\$

Each \$1.00 increase (decrease) in the assumed initial public offering price of \$ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, would increase (decrease) the pro forma as adjusted amount of each of additional paid-in capital, total stockholders' (deficit) equity and total capitalization by \$ million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the estimated underwriting discount and estimated offering expenses payable by us. Similarly, each increase (decrease) of 1.0 million shares in the number of shares offered by us at the assumed initial public offering price per share, which is the midpoint of the price range set forth on the cover page of this prospectus, would increase (decrease) the pro forma as adjusted amount of each of additional paid in capital, total stockholders' (deficit) equity and total capitalization by \$ million.

The number of shares in the table above does not include:

- 3,880,504 shares of common stock issuable upon exercise of stock options outstanding as of March 31, 2014, at a weighted-average exercise price of \$1.51 per share; or
- shares of our common stock reserved for future issuance under our incentive award plans.

## DILUTION

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

As of March 31, 2014, we had a net tangible book value of \$(98.1) million, or \$(40.88) per share of common stock. Our net tangible book value per share represents total tangible assets less total liabilities and redeemable convertible preferred stock, divided by the number of shares of our common stock outstanding as of March 31, 2014.

Our pro forma net tangible book value as of March 31, 2014 was \$ \_\_\_\_\_ million, or \$ \_\_\_\_\_ per share of our common stock. Pro forma net tangible book value per share represents total tangible assets less total liabilities, divided by the number of shares of our common stock outstanding as of March 31, 2014, after giving effect to the automatic conversion of all outstanding shares of our preferred stock into common stock upon the closing of this offering, assuming an initial public offering price of \$ \_\_\_\_\_ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, and the issuance of \_\_\_\_\_ shares of common stock upon the net exercise of all outstanding warrants, which will occur upon the closing of this offering and the resulting reclassification of the related liability for warrants to purchase redeemable securities to additional paid-in capital.

After giving further effect to 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 price range set forth on the cover page of this prospectus, and after deducting the estimated underwriting discount and estimated offering expenses payable by us, our pro forma as adjusted net tangible book value as of March 31, 2014 would have been \$ \_\_\_\_\_ million, or \$ \_\_\_\_\_ per share. This amount represents an immediate increase in pro forma net tangible book value of \$ \_\_\_\_\_ per share to our existing stockholders and an immediate dilution of \$ \_\_\_\_\_ per share to new investors in this offering. We determine dilution by subtracting the pro forma as adjusted net tangible book value per share after this offering from the amount of cash that a new investor paid for a share of common stock. The following table illustrates this dilution:

Assumed initial public offering price per share	\$ _____
Net tangible book value per share as of March 31, 2014	\$ (40.88)
Increase in net tangible book value per share attributable to the conversion of our preferred stock and net exercise of warrants	_____
Pro forma net tangible book value per share as of March 31, 2014	_____
Increase in pro forma net tangible book value per share attributable to this offering	_____
Pro forma as adjusted net tangible book value per share after this offering	_____
Dilution per share to new investors in this offering	\$ _____

Each \$1.00 increase (decrease) in the assumed initial public offering price of \$ \_\_\_\_\_ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, would increase (decrease) the pro forma as adjusted net tangible book value per share after this offering by \$ \_\_\_\_\_, and dilution in pro forma net tangible book value per share to new investors by \$ \_\_\_\_\_, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the estimated underwriting discount and

estimated offering expenses payable by us. Each increase (decrease) of 1.0 million shares in the number of shares offered by us would increase (decrease) our pro forma as adjusted net tangible book value per share after this offering by \$ per share and decrease (increase) the dilution to new investors by \$ per share, assuming that the assumed initial public offering price remains the same, and after deducting the estimated underwriting discount and the estimated offering expenses payable by us.

If the underwriters exercise their option to purchase additional shares of our common stock in full, the pro forma as adjusted net tangible book value after this offering would be \$ per share, the increase in pro forma net tangible book value per share would be \$ and the dilution per share to new investors would be \$ per share, in each case assuming an initial public offering price of \$ per share, which is the midpoint of the price range set forth on the cover page of this prospectus.

The following table summarizes, on a pro forma as adjusted basis as described above, as of March 31, 2014, the differences between the number of shares purchased from us, the total consideration paid to us in cash and the average price per share that existing stockholders and new investors paid. The calculation below is based on an assumed initial public offering price of \$ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, before deducting the estimated underwriting discount and estimated offering expenses payable by us.

	Shares Purchased		Total Consideration		Average Price Per Share
	Number	Percent	Amount	Percent	
Existing stockholders			%\$		%\$
New investors					
Total		100%		100%	

The foregoing tables and calculations are based on the number of shares of our common stock outstanding as of March 31, 2014, after giving effect to the automatic conversion of all outstanding shares of our preferred stock into common stock upon the closing of this offering and the net exercise of all outstanding warrants, which will occur upon the closing of this offering, assuming an initial public offering price of \$ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, and exclude:

- 3,880,504 shares of common stock issuable upon exercise of stock options outstanding as of March 31, 2014, at a weighted-average exercise price of \$1.51 per share; and
- shares of our common stock reserved for future issuance under our incentive award plans.

To the extent any of the outstanding stock options are exercised, there will be further dilution to new investors. If all of such outstanding stock options had been exercised as of March 31, 2014, the pro forma as adjusted net tangible book value per share after this offering would have been \$ , and total dilution per share to new investors would have been \$ .

If the underwriters exercise in full their option to purchase additional shares of our common stock:

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

**SELECTED FINANCIAL DATA**

The following tables set forth, for the periods and as of the dates indicated, our selected financial data. The statement of operations data for the years ended December 31, 2012 and 2013 and balance sheet data as of December 31, 2012 and 2013 are derived from our audited financial statements appearing elsewhere in this prospectus. The balance sheet data as of March 31, 2014 and the statement of operations data for the three months ended March 31, 2013 and 2014 and the statement of operations data for the period from our inception (April 27, 2006) to March 31, 2014 have been derived from our unaudited financial statements included elsewhere in this prospectus. These unaudited financial statements have been prepared on a basis consistent with our audited financial statements and, in our opinion, contain all adjustments, consisting of normal and recurring adjustments, necessary for the fair presentation of such financial data. You should read this data together with our financial statements and related notes included elsewhere in this prospectus and the information under the caption "Management's Discussion and Analysis of Financial Condition and Results of Operations". Our historical results are not necessarily indicative of our future results, and our operating results for the three months ended March 31, 2014 are not necessarily indicative of the results that may be expected for the year ending December 31, 2014 or any other interim periods or any future year or period.

	Year Ended December 31,		Three Months Ended March 31,		Period from April 27, 2006 (Inception) to March 31, 2014
	2012	2013	2013	2014	
(in thousands, except share and per share data)					
<b>Statement of Operations Data:</b>					
Research and grant revenue	\$ 19	\$ 266	\$ —	\$ —	\$ 3,085
Operating expenses:					
Research and development	11,727	14,936	3,561	5,065	59,388
Selling, general and administrative	2,945	5,022	1,039	1,842	22,552
Total operating expenses	14,672	19,958	4,600	6,907	81,940
Interest expense, net	(154)	(403)	(105)	(86)	(937)
Other income (expense), net	352	(515)	125	73	611
Net loss	(14,455)	(20,610)	(4,580)	(6,920)	(79,181)
Accretion of redeemable convertible preferred stock to redemption value	(4,412)	(6,908)	(1,176)	(1,906)	(21,307)
Net loss applicable to common stockholders	\$ (18,867)	\$ (27,518)	\$ (5,756)	\$ (8,826)	\$ (100,488)
Net loss per share applicable to common stockholders – basic and diluted <sup>(1)</sup>	\$ (8.15)	\$ (11.60)	\$ (2.45)	\$ (3.68)	\$ (58.62)
Weighted-average number of common shares used in computing net loss per share applicable to common stockholders – basic and diluted <sup>(1)</sup>	2,314,832	2,372,542	2,346,601	2,400,422	1,714,171
Pro forma net loss per share applicable to common stockholders – basic and diluted (unaudited) <sup>(1)</sup>		\$		\$	\$
Pro forma weighted-average number of common shares used in computing net loss per share applicable to common stockholders – basic and diluted (unaudited) <sup>(1)</sup>					

(1) See Note 2 to our financial statements included elsewhere in this prospectus for an explanation of the method used to calculate the historical and pro forma basic and diluted net loss per share attributable to common stockholders.

	As of December 31,		As of
	2012	2013	March 31, 2014
<b>Balance Sheet Data:</b>	(in thousands)		
Cash and cash equivalents	\$ 9,709	\$ 30,198	\$ 23,698
Total assets	11,431	31,885	25,832
Notes payable, net of current portion	5,058	3,299	2,855
Current liabilities	2,129	4,046	5,201
Warrants to purchase redeemable securities	695	1,225	1,152
Redeemable convertible preferred stock	66,137	112,813	114,719
Total stockholders' deficit	(62,658)	(89,543)	(98,130)



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

*You should read the following discussion and analysis of our financial condition and results of operations together with our financial statements and related notes thereto included elsewhere 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 an *in vitro* diagnostics company that has developed an innovative and proprietary technology platform that offers a rapid, sensitive and simple alternative to existing diagnostic methodologies. We are using our T2 Magnetic Resonance platform, or T2MR, to develop a broad set of applications aimed at lowering mortality rates, improving patient outcomes and reducing the cost of healthcare by helping medical professionals make targeted treatment decisions earlier. Our initial development efforts utilizing T2MR target sepsis and hemostasis, which are areas of significant unmet medical need where existing therapies could be more effective with improved diagnostics. We have completed a pivotal clinical trial for T2Dx and T2Candida and, on May 27, 2014, we submitted a *de novo* petition to the U.S. Food and Drug Administration, or the FDA, requesting an order authorizing us to market T2Dx and T2Candida in the United States. Our goal is to launch T2Dx and T2Candida commercially in the United States in the first half of 2015. In addition, we expect to initiate clinical trials for our bacterial sepsis and hemostasis product candidates in the second half of 2015 and the first half of 2016, respectively, and are targeting to commercialize these product candidates in 2017. We believe our combined initial annual addressable market opportunity for sepsis and hemostasis is over \$3 billion in the United States alone, when the market opportunity for T2Candida, T2Bacteria and our initial hemostasis diagnostic panel is combined.

Since our inception in 2006, we have devoted substantially all of our resources to the development of T2MR and applications of T2MR. We do not have marketing authorization or regulatory approval in any jurisdiction to sell any products and have not generated any revenue from product sales. Since our inception through March 31, 2014, we have raised an aggregate of \$101.9 million to fund our operations, of which \$93.4 million was from the sale of preferred stock, and \$8.3 million and \$0.2 million were from the issuance of debt and common stock, respectively.

We have never been profitable and have incurred net losses in each year since inception. Our net losses, for the period from April 27, 2006 (inception) to March 31, 2014, totaled \$98.1 million. Substantially all 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.

We do not expect to generate revenue from product sales unless and until we obtain marketing authorization from the FDA for T2Dx and T2Candida. If we obtain marketing authorization for T2Dx and T2Candida, or any of our other products, we expect to incur significant commercialization expenses related to product sales, marketing, manufacturing and distribution. In addition, we expect that our expenses will increase substantially as we continue the research and development of our other products and maintain, expand and protect our intellectual property portfolio. 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 as and when needed would have a negative impact on our financial condition and our ability to develop and commercialize our product candidates.

## **Financial Overview**

### **Revenue**

To date, we have generated revenue primarily from research and development agreements and government grants and have not generated any revenue from the sale of products. Revenue earned from activities performed pursuant to research and development agreements and grants is reported as revenue using the proportional performance method as the work is completed, and the related costs are expensed as incurred as research and development expense.

Our product candidate revenue will be derived from the sale of our instruments and related consumable diagnostic tests. In the majority of cases, we expect to place instruments in hospitals at minimal or no direct cost to customers in exchange for longer-term agreements and minimum commitments for the purchase of our consumable diagnostic tests. Under this business model, we believe we will recover the cost of placing our instruments in hospitals through the incremental price we charge for our consumable diagnostic tests. Our consumable diagnostic tests can only be used with our instruments, and accordingly, as the installed base of our instruments grows, we expect the following to occur:

- recurring revenue from our consumable diagnostic tests will increase and become subject to less period-to-period fluctuation;
- consumable revenue will become an increasingly predictable and important contributor to our total revenue; and
- we will gain economies of scale through the growth in our sales, resulting in improving gross margins and operating margins.

Revenue from consumables is expected to be based on the volume of tests sold and the price of each consumable unit. In the event that revenue arrangements contain multiple deliverables, revenue will be recognized upon the delivery of each of the elements once the appropriate revenue criteria is met.

We plan to continue to expand our capacity to support our growth, which will result in higher cost of revenue in absolute dollars. However, we expect cost of revenue, as a percentage of revenue, to decline as revenue grows.

### **Research and development expenses**

Our research and development expenses consist primarily of costs incurred for development of our technology and product candidates, technology improvements and enhancements, clinical trials to evaluate the clinical utility of our product candidates, and laboratory development and expansion, and include salaries and benefits, including stock-based compensation, research-related facility and overhead costs, laboratory supplies, equipment and contract services. We expense all research and development costs as incurred.

We have incurred a total of \$59.4 million in research and development expenses from inception through March 31, 2014, with a majority of the expenses being spent on the development of T2MR, and applications of T2MR, and the remainder being spent on clinical trials and research and development of additional applications using T2MR. We expect that our overall research and development expenses will continue to increase in absolute dollars. We have committed, and

expect to commit, significant resources developing additional product candidates, improving product performance and reliability, conducting ongoing and new clinical trials and expanding our laboratory capabilities.

#### **Selling, general and administrative expenses**

Selling, general and administrative expenses consist primarily of costs for our sales and marketing, finance, human resources, business development and general management functions, as well as professional services, such as legal, consulting and accounting services. We expect selling, general and administrative expenses to increase in future periods as we commercialize product candidates that receive marketing authorization or regulatory clearance and as our needs for sales, marketing and administrative personnel grow. Other selling, general and administrative expenses include facility-related costs, fees and expenses associated with obtaining and maintaining patents, clinical and economic studies and publications, marketing expenses, and travel expenses. We also anticipate increased expenses related to audit, legal, regulatory and tax-related services associated with being a public company. We expense all selling, general and administrative expenses as incurred.

#### **Interest expense, net**

Interest expense, net, consists primarily of interest expense on our notes payable and the amortization of deferred financing costs, partially offset by interest earned on our cash and cash equivalents.

#### **Other income (expense), net**

Other income (expense), net, consists primarily of the gain or loss associated with the change in the fair value of our liability for warrants to purchase redeemable securities.

#### **Results of Operations for the Three Months Ended March 31, 2013 and March 31, 2014**

	Three Months Ended March 31,		Change
	2013	2014	
	(in thousands)		
Research and grant revenue	\$ —	\$ —	\$ —
Operating expenses:			
Research and development	3,561	5,065	1,504
Selling, general and administrative	1,039	1,842	803
Total operating expenses	4,600	6,907	2,307
Loss from operations	(4,600)	(6,907)	(2,307)
Interest expense, net	(105)	(86)	19
Other income (expense), net	125	73	(52)
Net loss	<u>\$ (4,580)</u>	<u>\$ (6,920)</u>	<u>\$ (2,340)</u>

#### **Research and development expenses**

Research and development expenses were \$5.1 million for the three months ended March 31, 2014, compared to \$3.6 million for the three months ended March 31, 2013, an increase of \$1.5 million. The increase was primarily due to increased travel and site expenses of \$0.8 million

related to the pivotal clinical trial for T2Dx and T2Candida, increased payroll and payroll related expenses of \$0.4 million, including stock compensation expenses, as we increased full-time and temporary headcount, increased lab expenses of \$0.1 million and increased consulting expenses of \$0.1 million to support product development.

#### **Selling, general and administrative expenses**

Selling, general and administrative expenses were \$1.8 million for the three months ended March 31, 2014, compared to \$1.0 million for the three months ended March 31, 2013. The increase of \$0.8 million was due primarily to increased payroll and related expenses of \$0.5 million, including stock compensation expenses, as we hired new sales and administrative employees, increased marketing program expenses of \$0.1 million, including trade shows, website redesign and collateral, and increased consulting related expenses of \$0.1 million.

#### **Interest expense, net**

Interest expense, net, decreased for the three months ended March 31, 2014, compared to the three months ended March 31, 2013, due to lower borrowing levels on our notes payable.

#### **Other income (expenses), net**

Other income (expense), net, for the three months ended March 31, 2014, declined when compared with the three months ended March 31, 2013, due to a decrease in income from the revaluation of the fair value of the liability for warrants to purchase redeemable securities.

#### **Results of Operations for the Years Ended December 31, 2012 and 2013**

	<b>Year Ended December 31,</b>		<b>Change</b>
	<b>2012</b>	<b>2013</b>	
	(in thousands)		
Research and grant revenue	\$ 19	\$ 266	\$ 247
Operating expenses:			
Research and development	11,727	14,936	3,209
Selling, general and administrative	2,945	5,022	2,077
Total operating expenses	14,672	19,958	5,286
Loss from operations	(14,653)	(19,692)	(5,039)
Interest expense, net	(154)	(403)	(249)
Other income (expense), net	352	(515)	(867)
Net loss	<u>\$ (14,455)</u>	<u>\$ (20,610)</u>	<u>\$ (6,155)</u>

#### **Revenue**

We recorded \$0.3 million of research and grant revenue for the year ended December 31, 2013, which primarily consisted of revenue related to feasibility studies and co-development efforts with three companies. For the year ended December 31, 2012, we recorded \$19,000 in research and grant revenue, which primarily consisted of work completed under a third-party development agreement, offset by the fair value of warrants issued in conjunction with the agreement, which were recorded as a reduction to revenue.

**Research and development expenses**

Research and development expenses were \$14.9 million for the year ended December 31, 2013, compared to \$11.7 million for the year ended December 31, 2012, an increase of \$3.2 million. The increase was primarily due to increased payroll and payroll related expenses of \$1.1 million, including stock compensation expenses, as we hired new employees, increased lab expenses to support product development, increased travel and site expenses of \$2.1 million related to the pivotal clinical trial for T2Dx and T2Candida.

**Selling, general and administrative expenses**

Selling, general and administrative expenses were \$5.0 million for the year ended December 31, 2013, compared to \$2.9 million for the year ended December 31, 2012. The increase of \$2.1 million was due primarily to increased payroll and related expenses of \$0.9 million, including stock compensation expense, as we hired new administrative employees, increased marketing program expenses of \$0.5 million, including tradeshows and collateral, increased legal expenses of \$0.2 million related to corporate and intellectual property matters, and increased consulting related expenses of \$0.2 million.

**Interest expense, net**

Interest expense, net, increased for the year ended December 31, 2013, compared to the year ended December 31, 2012, due to higher borrowing levels in 2013 under our credit facility with Silicon Valley Bank.

**Other income (expense), net**

Other income (expense), net, for the year ended December 31, 2013 declined when compared with the year ended December 31, 2012, due to an increase in the fair value of the liability for warrants to purchase redeemable securities.

**Liquidity and Capital Resources**

We have incurred losses and cumulative negative cash flows from operations since our inception in April 2006, and as of March 31, 2014, we had a deficit accumulated in the development stage of \$98.1 million. We anticipate that we will continue to incur losses for at least the next several years. We expect that our research and development and selling, general and administrative expenses will continue to increase and, as a result, we will need additional capital to fund our operations, which we may raise through a combination of equity offerings, debt financings, other third-party funding, marketing and distribution arrangements and other collaborations, strategic alliances and licensing arrangements.

We have funded our operations principally from the issuance of preferred stock, common stock and notes payable. Since our inception through March 31, 2014, we have raised an aggregate of \$101.9 million to fund our operations, of which \$93.4 million was from the sale of preferred stock, \$8.3 million was from our debt instruments and \$0.2 million was from the issuance of common stock. As of March 31, 2014, we had cash and cash equivalents of \$23.7 million. Currently, our funds are primarily held in money market funds consisting of U.S. government-backed securities.

**Indebtedness**

On May 9, 2011, we entered into a promissory note with Massachusetts Development Finance Company to borrow up to \$1.7 million for the purchase of laboratory equipment and office

equipment. The amounts borrowed are collateralized by the associated equipment and bear interest at a fixed annual rate of 6.5%. Pursuant to the note, we are required to meet a liquidity covenant whereby we must maintain a cash balance of \$0.3 million in cash and marketable securities. We paid interest only on the borrowings through December 2013 and will continue to make equal monthly payments of principal and interest through the maturity date of May 2018. In connection with the note, we issued a warrant that is exercisable for shares of our series C preferred stock.

On June 30, 2007, we entered into a loan and security agreement with Silicon Valley Bank, as amended on June 26, 2009 and June 25, 2012. Our outstanding borrowings as of March 31, 2014 relate to the June 25, 2012 amendment, which allowed us to borrow up to \$4.5 million through December 31, 2012. The amounts borrowed are collateralized by our assets other than intellectual property and bear interest at the greater of a floating rate based on the prime rate or a fixed rate of 6.25%. The debt can be prepaid at our option, and is subject to a prepayment premium of 2% if it is repaid prior to the first anniversary of the borrowing date, and 1% if it is prepaid prior to the second anniversary of the borrowing date. Under the terms of the loan and security agreement, we paid interest only on the borrowings through June 30, 2013 and have made and thereafter will continue to make equal monthly payments of principal plus monthly payments of accrued interest. In connection with the loan and security agreement and related amendments, we issued warrants exercisable for shares of our series A-2 preferred stock, series B preferred stock and series D preferred stock.

In addition, the promissory note with Massachusetts Development Finance Company contains a subjective acceleration clause whereby an event of default and immediate acceleration of the borrowing under the security and loan agreement occurs if we experience a material adverse change in the business, operations or condition (financial or otherwise) or a material impairment of the prospect of repayment of any portion of the obligations. The lender has not exercised its right under this clause, as there have been no such events. We believe that the likelihood of the lender exercising this right is remote.

As of March 31, 2014, we had \$4.6 million outstanding under these debt instruments and were in compliance with all financial covenants.

#### ***Plan of operations and future funding requirements***

Our primary uses of capital are, and we expect will continue to be, compensation and related expenses, costs related to clinical trials, laboratory and related supplies, supplies and materials used in manufacturing, legal and other regulatory expenses and general overhead costs.

We believe that our existing cash and cash equivalents, including the net proceeds of this offering, will be sufficient to fund our operating expenses and capital expenditure requirements through at least the next 18 months. We have based this estimate on assumptions that may prove to be wrong, and we could use our capital resources sooner than we currently expect. Additionally, the process of testing our product candidates in clinical trials is costly, and the timing of progress in these trials is uncertain. Because our product candidates have not received marketing authorization from the FDA and are in various stages of clinical and preclinical development and the outcome of these efforts is uncertain, we cannot estimate the actual amounts necessary to successfully complete the development and commercialization of our product candidates or whether, or when, we may achieve profitability.

Until such time, if ever, as we can generate substantial product revenue, we expect to finance our cash needs through a combination of equity offerings, debt financings and revenue from potential research and development and other collaboration agreements. To the extent that we raise additional capital through the future sale of equity or debt, the ownership interest of our stockholders will be diluted, and the terms of these securities may include liquidation or other

preferences that adversely affect the rights of our existing common stockholders. If we raise additional funds in the future, we may have to relinquish valuable rights to our technologies, future revenue streams or grant licenses on terms that may not be favorable to us. If we are unable to raise additional funds through equity or debt financings when needed, we may be required to delay, limit, reduce or terminate our product development or future commercialization efforts or grant licenses to develop and market products that we would otherwise prefer to develop and market ourselves.

### Cash flows

The following is a summary of cash flows for each of the periods set forth below:

	Year Ended December 31,		Three Months Ended March 31,	
	2012	2013	2013	2014
	(in thousands)			
Net cash (used in) provided by:				
Operating activities	\$ (13,303)	\$ (18,053)	\$ (3,867)	\$ (5,791)
Investing activities	(283)	(433)	(35)	(263)
Financing activities	4,551	38,975	39,749	(446)
Net (decrease) increase in cash and cash equivalents	<u>\$ (9,035)</u>	<u>\$ 20,489</u>	<u>\$ 35,847</u>	<u>\$ (6,500)</u>

### Net cash used in operating activities

Net cash used in operating activities was \$5.8 million for the three months ended March 31, 2014, and consisted primarily of a net loss of \$6.9 million adjusted for non-cash items including depreciation and amortization expense of \$0.1 million, stock-based compensation expense of \$0.2 million, a decrease in the fair value of warrants of \$0.1 million and a net change in operating assets and liabilities of \$0.8 million.

Net cash used in operating activities was \$3.9 million for the three months ended March 31, 2013, and consisted primarily of a net loss of \$4.6 million adjusted for non-cash items including depreciation and amortization expense of \$0.1 million, stock-based compensation expense of \$0.1 million, a decrease in the fair value of warrants of \$0.1 million and a net change in operating assets and liabilities of \$0.6 million.

Net cash used in operating activities was \$18.1 million for the year ended December 31, 2013, and consisted primarily of a net loss of \$20.6 million adjusted for non-cash items including depreciation and amortization expense of \$0.6 million, stock-based compensation expense of \$0.6 million, an increase in the fair value of warrants of \$0.5 million and a net change in operating assets and liabilities of \$0.8 million.

Net cash used in operating activities was \$13.3 million for the year ended December 31, 2012, and consisted primarily of a net loss of \$14.5 million adjusted for non-cash items including depreciation and amortization expense of \$0.6 million, stock-based compensation expense of \$0.4 million, decrease in the fair value of warrants of \$0.1 million and a net change in operating assets and liabilities of \$0.2 million.

**Net cash used in investing activities**

Net cash used in investing activities was \$0.3 million for the three months ended March 31, 2014, and consisted of \$0.3 million of purchases of laboratory equipment and computer software.

Net cash used in investing activities was \$35,000 for the three months ended March 31, 2013, and consisted of \$115,000 of purchases of laboratory equipment, partially offset by \$80,000 of proceeds from restricted cash accounts related to an operating lease agreement.

Net cash used in investing activities was \$0.4 million for the year ended December 31, 2013, and consisted primarily of capital expenditures of \$0.5 million, for purchases of laboratory equipment and leasehold improvements, partially offset by \$0.1 million of proceeds from restricted cash accounts related to an operating lease agreement.

Net cash used in investing activities was \$0.3 million for the year ended December 31, 2012, and consisted primarily of purchases of laboratory equipment.

**Net cash (used in) provided by financing activities**

Net cash used in financing activities was \$0.4 million for the three months ended March 31, 2014, and consisted of \$0.4 million of repayments of notes payable.

Net cash provided by financing activities was \$39.7 million for the three months ended March 31, 2013, and primarily related to the sale of 6.9 million shares of our series E preferred stock for net proceeds of \$39.8 million, partially offset by repayments of notes payable of \$0.1 million.

Net cash provided by financing activities during the year ended December 31, 2013 was primarily related to the sale of 6.9 million shares of our series E preferred stock for net proceeds of \$39.8 million, partially offset by repayments of notes payable of \$0.8 million.

Net cash provided by financing activities during the year ended December 31, 2012 was primarily related to the issuance of notes payable for net proceeds of \$4.9 million, partially offset by repayments of notes payable of \$0.4 million.

**Contractual Obligations and Contingent Liabilities**

The following summarizes our significant contractual obligations as of December 31, 2013:

	<u>Total</u>	<u>Less than 1 Year</u>	<u>1 to 3 Years</u>	<u>3 to 5 Years</u>	<u>More than 5 Years</u>
	(in thousands)				
Operating leases <sup>(1)</sup>	\$ 1,273	\$ 649	\$ 624	\$ —	\$ —
Notes payable <sup>(2)</sup>	5,673	2,066	3,479	128	—
<b>Total obligations</b>	<b>\$ 6,946</b>	<b>\$ 2,715</b>	<b>\$ 4,103</b>	<b>\$ 128</b>	<b>\$ —</b>

(1) Represents the leases of approximately 27,000 square feet for office, laboratory and manufacturing space in Lexington, Wilmington and Worcester, Massachusetts under noncancelable operating leases that expire in January 2016 and December 2015.

(2) Represents our promissory note with Massachusetts Development Finance Company and our loan and security agreement with Silicon Valley Bank that currently bear interest at annual rates of 6.5% and 6.25%, respectively, and have principal repayment dates through May 2018. The balance for these debt instruments includes interest payment obligations.



## **Net operating loss carryforwards**

We have deferred tax assets of \$30.1 million as of December 31, 2013, which have been fully offset by a valuation allowance due to uncertainties surrounding our ability to realize these tax benefits. The deferred tax assets are primarily composed of federal net operating loss, or NOL, tax carryforwards and research and development tax credit carryforwards. As of December 31, 2013, we had federal NOL carryforwards of \$56.0 million available to reduce future taxable income, if any. These federal NOL carryforwards are available to offset future taxable income, if any, through 2023. In general, if we experience a greater than 50% aggregate change in ownership of certain significant stockholders over a three-year period, or a Section 382 ownership change, utilization of our pre-change NOL carryforwards are subject to an annual limitation under Section 382 of the Internal Revenue Code of 1986, as amended. Such limitations may result in expiration of a portion of the NOL carryforwards before utilization and may be substantial. We have not conducted an assessment to determine whether there may have been a Section 382 ownership change. If we experience a Section 382 ownership change in connection with this offering or as a result of future changes in our stock ownership, some of which changes are outside of our control, the tax benefits related to the NOL carryforwards may be limited or lost.

## **Critical Accounting Policies and Use of Estimates**

This management's discussion and analysis of financial condition and results of operations is based on our financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States, or GAAP. The preparation of these financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements, as well as the reported revenue and expenses during the reporting periods. These items are monitored and analyzed by us for changes in facts and circumstances, and material changes in these estimates could occur in the future. We base our estimates on historical experience and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Changes in estimates are reflected in reported results for the period in which they become known. Actual results may differ materially from these estimates under different assumptions or conditions.

While our significant accounting policies are more fully described in the notes to our financial statements included elsewhere in this prospectus, we believe that the following accounting policies are critical to the process of making significant judgments and estimates in the preparation of our financial statements and understanding and evaluating our reported financial results.

### ***Revenue recognition***

We have generated revenue primarily from research and development agreements and government grants. The timing of cash received from our research and development agreements generally differs from when revenue is recognized. Revenue is recognized when persuasive evidence that an arrangement exists, delivery has occurred or services have been rendered, the price is fixed or determinable and collection is reasonably assured. Revenue earned from activities performed pursuant to research and development agreements and grants are reported as revenue on a proportional performance basis as the work is completed, and the related costs are expensed as incurred as research and development expense.

Amounts received prior to satisfying the revenue recognition criteria are recorded as deferred revenue.

**Stock-based compensation**

We issue stock-based awards to employees and non-employees, generally in the form of stock options and restricted stock. We account for our stock-based awards in accordance with FASB ASC Topic 718, *Compensation — Stock Compensation*, or ASC 718. ASC 718 requires all stock-based payments to employees, including grants of employee stock options and modifications to existing stock options, to be recognized in the consolidated statements of operations and comprehensive loss based on their grant date fair values. We account for stock-based awards to non-employees in accordance with FASB ASC Topic 505-50, *Equity-Based Payments to Non-Employees*, which requires the fair value of the award to be remeasured at fair value as the award vests. We recognize the compensation cost of stock-based awards to employees and non-employees on a straight-line basis over the vesting period. See below for a detailed description of how we estimate fair value for purposes of option grants and the methodology used in measuring stock-based compensation expense. Following the consummation of this offering, stock option and restricted stock values will be determined based on the market price of our common stock.

We estimate the fair value of our stock-based awards to employees and non-employees using the Black-Scholes-Merton option pricing model, which requires the input of highly subjective assumptions, including (a) the expected volatility of our stock, (b) the expected term of the award, (c) the risk-free interest rate and (d) expected dividends. 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 and 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 U.S. Treasury yield curve in effect during the period in which the options were granted.

We are also required to estimate forfeitures at the time of grant, and revise those estimates in subsequent periods if actual forfeitures differ from our estimates. We use historical data to estimate pre-vesting option forfeitures and record stock-based compensation expense only for those awards that are expected to vest. To the extent that actual forfeitures differ from our estimates, the difference is recorded as a cumulative adjustment in the period the estimates were revised. Stock-based compensation expense recognized in the financial statements is based on awards that are ultimately expected to vest. If our actual forfeiture rate is materially different from the estimate, our stock-based compensation expense could be different from what we have recorded in the current period.

We have computed the fair value of employee and non-employee stock options at date of grant using the following estimated assumptions:

	Year Ended December 31,		Three Months Ended March 31,	
	2012	2013	2013	2014
Risk-free interest rate	1.35%	1.68%	1.02%	2.04%
Expected dividend yield	0.00%	0.00%	0.00%	0.00%
Expected volatility	64%	63%	64%	62%
Expected term (in years)	6.25 - 10	5.77 - 6.08	6.08	6.02 - 6.08

These assumptions represent our best estimates, but the estimates involve inherent uncertainties and the application of our judgment. As a result, if factors change and we use significantly different assumptions or estimates, our stock-based compensation expense could be materially different.

We have recognized the following compensation cost related to employee and non-employee stock option and restricted stock activity:

	Year Ended December 31,		Three Months Ended March 31,	
	2012	2013	2013	2014
	(in thousands)			
Research and development	\$ 160	\$ 169	\$ 46	\$ 56
Selling, general and administrative	243	409	76	183
Total stock-based compensation expense	\$ 403	\$ 578	\$ 122	\$ 239

#### Determination of the Fair Value of Common Stock on Grant Dates

The fair value of the common stock underlying our share-based awards was determined by our board of directors, with input from management and contemporaneous third-party valuations. We believe that our board of directors has the relevant experience and expertise to determine the fair value of our common stock. However, the fair value of our common stock may vary significantly in the future and from the estimates previously made. As described below, the exercise price of our share-based awards was also generally determined by our board of directors based on the most recent contemporaneous third-party valuation.

Given the absence of a public trading market of our common stock, and in accordance with the American Institute of Certified Public Accountants, or AICPA, *Valuation of Privately-Held-Company Equity Securities Issued as Compensation Accounting and Valuation Guide*, or the Practice Aid, the board of directors exercised reasonable judgment and considered numerous objective and subjective factors to determine the best estimate of the fair value of our common stock including:

- our capital structure, including the rights and preferences of our various classes of equity;
- lack of marketability of our common stock;
- our historical operating results, current business conditions and projections;
- our stage of development;

- likelihood of achieving a liquidity event, such as an initial public offering or a merger or acquisition of our company, given prevailing market conditions; and
- the market performance of comparable publicly traded companies.

In valuing our common stock, since 2011, our board of directors determined the equity value of our business using the income approach valuation method or, when applicable due to a recent offering of our redeemable convertible preferred stock, the back solve method of the option pricing model, or OPM, to determine the enterprise value. The income approach determines our enterprise value on the basis of the estimated present value of our projected future cash flows. These future cash flows are discounted to their present values using a discount rate derived from an analysis of the cost of capital of comparable publicly traded companies in our industry or similar lines of business as of each valuation date and this discount rate is adjusted to reflect the risks inherent in our cash flows. Once calculated, the results of the income approach were relied upon to determine an estimated enterprise value.

The back solve method of the OPM estimates our enterprise value by considering any prior sales of our capital stock. When considering prior sales of our equity, the valuation considers the circumstances surrounding the sale, such as the size of the equity sale, the relationship of the parties involved in the transaction, the timing of the equity sale and the rights, preferences and privileges of the capital stock sold in the transaction.

Our peer group of publicly traded companies used for determination of the discount rate and market trading multiples consists of six companies that focus primarily on providing biotechnology diagnostic solutions that are similar to our current product candidates. There are, however, significant size and risk differences between our selected peer group of guideline public companies and us.

For valuations prior to December 31, 2013, after we determined an enterprise value, we utilized the OPM to allocate the equity value to each of our classes of stock. The OPM values each equity class by creating a series of call options on our equity value, with exercise prices based on the liquidation preferences, participation rights and strike prices of derivatives. This method is generally preferred when future outcomes are difficult to predict and dissolution or liquidation is not imminent. In addition, we considered an appropriate discount adjustment to recognize the lack of marketability as a private company. The OPM uses the Black-Scholes-Merton option-pricing model to price the call option.

Because we believed there was greater clarity about potential exit scenarios, including a possible initial public offering, beginning with the December 31, 2013 valuation described below, we began using the probability weighted expected return method, or PWERM, to allocate our equity value among the various potential outcomes. Using the PWERM, the value of our common stock is estimated based upon an analysis of varying values for our common stock assuming the following possible future events for our company:

- the completion of an initial public offering;
- the completion of a sale of our company; and
- continuation as a private company.

We applied a percentage probability weighting to each of the above scenarios based on our expectations of the likelihood of each event. We then applied the PWERM in order to allocate the derived aggregate enterprise value to our common equity. The PWERM involves analyzing the probability weighted present value of expected future values considering the liquidity scenarios discussed above, as well as the respective rights of holders of our common stock and convertible preferred stock.

**Stock Option Grants**

The following table presents stock options granted between January 1, 2013 and July 2, 2014:

<b>Date of Grant</b>	<b>Number of Shares Underlying Stock Options Granted</b>	<b>Exercise Price Per Common Share</b>	<b>Common Stock Fair Value Per Share on Grant Date</b>
January 23, 2013	50,000	\$ 1.32	\$ 1.32
June 25, 2013	477,750	1.89	1.89
September 25, 2013	824,974	1.89	1.89
October 24, 2013	282,250	1.89	1.89
November 20, 2013	186,125	1.89	1.89
January 22, 2014	128,255	1.89	4.48
April 9, 2014	146,500	6.29	6.29
June 25, 2014	74,000	6.29	6.29
July 1, 2014	356,280	6.29	6.29

We completed contemporaneous valuations of our common stock on August 31, 2012, March 31, 2013, December 31, 2013 and March 31, 2014, when the board of directors determined business events or transactions may have resulted in a change in the fair value of our common stock. The dates of our contemporaneous valuations have not always coincided with the dates of our stock-based compensation grants. In determining the exercise price of the options set forth in the table above, our board of directors considered, among other things, the most recent contemporaneous valuations of our common stock and our assessment of additional objective and subjective factors it believed were relevant as of the grant date. The additional factors considered when determining any changes in fair value between the recent contemporaneous valuations and the grant dates included, when available, the prices paid in recent transactions involving our equity securities, our operating and financial performance and current business conditions.

**Warrants to purchase redeemable securities**

In September 2008, we issued warrants to In-Q-Tel, Inc. that were immediately exercisable for 174,530 and 3,612 shares of our series B preferred stock, at an exercise price per share of \$3.3232 and \$4.65, respectively. In addition, in connection with the loan and security agreement with Silicon Valley Bank, as amended, we issued Silicon Valley Bank warrants that are exercisable for 13,769 shares of series A-2 preferred stock, 9,036 shares of our series B preferred stock and 19,780 shares of series D preferred stock at an exercise price per share of \$2.9050, \$3.3232 and \$4.55, respectively. In May 2011, in connection with a security agreement dated May 9, 2011 with Massachusetts Development Finance Agency, we issued a warrant to Massachusetts Development Finance Agency that is exercisable for 30,000 shares of our series C preferred stock, at an exercise price per share of \$3.6608.

These warrants are exercisable into securities that are subject to redemption provisions that are outside of our control. Therefore, the warrants are classified as liabilities and recorded at fair value. The warrants are subject to re-measurement at each balance sheet date and any change in fair value is recognized as a component of other income (expense), net. We measure the fair value of our warrant liability based on input from management and the board of directors, which utilized an independent valuation of enterprise value utilizing an analytical valuation model. The valuations we obtained were prepared in accordance with the guidelines in the Practice Aid. We generally use an income approach to determine the enterprise value. 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. We used an OPM to determine the fair value of

the warrant liability at December 31, 2012. We used a hybrid of an OPM and a PWERM to determine the fair value of the warrant liability at December 31, 2013 and March 31, 2014. Each valuation methodology includes estimates and assumptions that require our judgment. These estimates and assumptions include a number of objective and subjective factors, including external market conditions affecting the *in vitro* diagnostics industry sector, the prices at which we sold shares of preferred stock, the superior rights and preferences of securities at the time and the likelihood of achieving a liquidity event, such as an initial public offering or a sale of our company.

Pursuant to the terms of these warrants, in connection with the closing of this offering, the warrants will be automatically exercisable on a cashless "net exercise" basis, where the holder receives the net value of the warrant in shares of common stock based on a formula using the initial public offering price. The warrants otherwise terminate upon the closing of this offering.

#### **Emerging Growth Company Status**

In April 2012, the Jumpstart Our Business Startups Act, or the JOBS Act, was enacted in the United States. 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 of 1933, as amended, for complying with new or revised accounting standards. Thus, 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 non-emerging growth companies.

#### **Off-Balance Sheet Arrangements**

We did not have during the periods presented, and we do not currently have, any off-balance sheet arrangements, as defined under Securities and Exchange Commission, or SEC, rules.

#### **Quantitative and Qualitative Disclosures about Market Risk**

We are exposed to market risk related to changes in interest rates. As of March 31, 2014, we had cash and cash equivalents of \$23.7 million held primarily in money market funds consisting of U.S. government-backed securities. 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. Due to the short-term duration of our investment portfolio and the low risk profile of our investments, an immediate one percent change in interest rates would not have a material effect on the fair market value of our portfolio. We are also subject to interest rate risk from the loans under our credit facility with Silicon Valley Bank that bear interest at an annual rate equal to the greater of (a) the prime rate (as reported in the Wall Street Journal at the time of funding) plus 3.0% and (b) 6.25%.

## BUSINESS

### Overview

We are an *in vitro* diagnostics company that has developed an innovative and proprietary technology platform that offers a rapid, sensitive and simple alternative to existing diagnostic methodologies. We are using our T2 Magnetic Resonance platform, or T2MR, to develop a broad set of applications aimed at lowering mortality rates, improving patient outcomes and reducing the cost of healthcare by helping medical professionals make targeted treatment decisions earlier. T2MR enables rapid detection of pathogens, biomarkers and other abnormalities in a variety of unpurified patient sample types, including whole blood, plasma, serum, saliva, sputum and urine, and can detect cellular targets at limits of detection as low as one colony forming unit per milliliter, or CFU/mL. Our initial development efforts utilizing T2MR target sepsis and hemostasis, which are areas of significant unmet medical need in which existing therapies could be more effective with improved diagnostics. We have completed a pivotal clinical trial for our T2Dx diagnostic instrument and our T2Candida panel, which have the ability to rapidly identify the five clinically relevant species of *Candida*, a fungal pathogen known to cause sepsis. On May 27, 2014, we submitted a *de novo* petition to the U.S. Food and Drug Administration, or the FDA, requesting an order authorizing us to market T2Dx and T2Candida in the United States. Upon receipt of marketing authorization from the FDA, we intend to commercialize T2Dx and T2Candida and our goal is to launch these product candidates commercially in the United States in the first half of 2015. Our next two diagnostic applications are called T2Bacteria and T2HemoStat, which are focused on bacterial sepsis infections and hemostasis, respectively. We plan to initiate clinical trials in the second half of 2015 for T2Bacteria and in the first half of 2016 for T2HemoStat. We expect that existing reimbursement codes will support our sepsis and hemostasis product candidates, that we will have no need to seek new reimbursement codes, and that the anticipated economic savings associated with our sepsis products will be realized directly by hospitals.

Sepsis is one of the leading causes of death in the United States and the most expensive hospital-treated condition. Most commonly afflicting immunocompromised, critical care and elderly patients, sepsis is a severe inflammatory response to a bacterial or fungal infection with a mortality rate of approximately 30%. According to data published by the U.S. Department of Health and Human Services for 2011, the cost of sepsis is over \$20 billion in the United States, or approximately 5% of the total aggregate costs associated with domestic hospital stays. Sepsis is typically caused by one or more of five *Candida* species or over 25 bacterial pathogens, and effective treatment requires the early detection and identification of these specific target pathogens in a patient's bloodstream. Today, sepsis is typically diagnosed through a series of blood cultures followed by post-blood culture species identification. This method has substantial diagnostic limitations that lead to a delay of up to several days in administration of targeted treatment and the incurrance of unnecessary hospital expense. Without the ability to rapidly identify pathogens, physicians typically start treatment of at-risk patients with broad-spectrum antibiotics, which can be ineffective and unnecessary and have contributed to the spread of antimicrobial resistance. According to a study published by *Critical Care Medicine* in 2006, in sepsis patients with documented hypotension, administration of effective antimicrobial therapy within the first hour of detection was associated with a survival rate of 79.9% and, over the ensuing six hours, each hour of delay in initiation of treatment was associated with an average decrease in survival of 7.6%.

We believe our sepsis product candidates will redefine the standard of care in sepsis management while lowering healthcare costs by improving both the precision and the speed of detection of sepsis-causing pathogens. According to a study published in the *Journal of Clinical Microbiology* in 2010, targeted therapy for patients with bloodstream infections can be delayed up to 72 hours due to the wait time for blood culture results, leading to the conclusion that more-rapid identification of the causative organism would be highly desirable to facilitate targeted treatment in

the critical phase of septic illness. In another study published in *Clinical Infectious Diseases* in 2012, the delayed administration of appropriate anti-fungal therapy was associated with higher mortality among patients with septic shock attributed to *Candida* infection and, on that basis, the study stated that more rapid and accurate diagnostic techniques appear to be needed. Our pivotal clinical trial demonstrated that T2Candida can deliver actionable results as fast as three hours, with an average time to result during the trial of 4.2 hours, rather than the two to five days typically required for blood-culture-based diagnostics, which we believe will enable physicians to make treatment decisions and administer targeted treatment to patients on an accelerated basis. We believe that T2Bacteria will also deliver actionable results within these timeframes because this diagnostic panel is designed to run on the same instrument as T2Candida.

*Candida* has an average mortality rate of approximately 40%, and according to a study published in *Antimicrobial Agents and Chemotherapy* in 2010, this mortality rate can be reduced to 11% with the initiation of targeted therapy within 12 hours of presentation of symptoms. In a study published in the *American Journal of Respiratory and Critical Care Medicine* in 2009, providing targeted antifungal therapy within 24 hours of the presentation of symptoms decreased the average cost of care by approximately \$30,000 per patient. We expect the anticipated economic savings associated with our sepsis product candidates will be realized directly by hospitals, as the diagnosis and treatment of sepsis patients in the United States in a hospital inpatient setting is currently reimbursed on an inpatient basis under existing diagnosis-related group, or DRG, codes. These codes provide hospitals with a fixed-sum reimbursement for all items and services provided to the patient during a single hospitalization. Therefore, we do not believe we will need to seek new reimbursement codes for our sepsis product candidates.

Another significant unmet clinical need that we believe can be addressed by T2MR is the timely diagnosis and management of impaired hemostasis, which is a potentially life-threatening condition in which a patient is unable to promote the formation of blood clots to stabilize excessive bleeding. For critical trauma patients with impaired hemostasis, diagnostic results are typically required in fewer than 30 minutes to aid clinicians in making the most effective treatment decisions. The need for rapid diagnosis is not met by current diagnostic methods, which typically involve multiple instruments and can take hours to process a patient specimen. As a result, physicians often make critical decisions for treatment of impaired hemostasis with limited or no diagnostic data.

We believe our combined initial annual addressable market opportunity for sepsis and hemostasis is over \$3 billion in the United States alone, when the market opportunity for T2Candida, T2Bacteria and our initial hemostasis diagnostic panel is combined. Within the sepsis market in the United States, we estimate that there are approximately 6.75 million critical care and immunocompromised patients who present with symptoms and are at high risk for a bloodstream infection who would be appropriate to be tested by our T2Candida panel. These patients, along with approximately two million additional patients who receive treatment in the emergency room setting, are also highly susceptible to bacterial infections, for a total of approximately 8.75 million patients who would be appropriate to be tested by our T2Bacteria panel. Within the hemostasis market, for trauma alone, there are over three million patients in the United States annually who present with symptoms of impaired hemostasis. These patients often require rapid and frequent hemostasis assessments to determine the presence and severity of abnormal coagulation, or blood clotting. As a result, the typical patient is tested at least three times during a hospital visit, which we estimate results in at least nine million diagnostic tests annually.

## **Our Strategy**

T2MR enables rapid and sensitive direct detection of a range of targets, and we believe it can be used in a variety of diagnostic applications that will improve patient outcomes and reduce



healthcare costs. Our objective is to establish T2MR as a standard of care for clinical diagnostics. To achieve this objective, our strategy is to:

- **Seek Marketing Authorization from the FDA for T2Dx and T2Candida.** We have completed a pivotal clinical trial for T2Dx and T2Candida and, on May 27, 2014, we submitted a *de novo* petition to the FDA for marketing authorization. We are targeting a commercial launch of both products in the first half of 2015. We also expect to seek regulatory clearance and approvals for these product candidates in European and other international markets beginning in the second half of 2014.
- **Drive Commercial Adoption of Our Sepsis Products by Demonstrating Their Value to Physicians, Laboratory Directors and Hospitals.** We expect our product candidates to meaningfully improve patient outcomes while reducing costs to hospitals. We intend to establish a targeted, direct sales force in the United States, which will initially focus on educating physicians and demonstrating our clinical and economic value proposition to hospitals that have the highest populations of at-risk critical care and immunocompromised patients. We believe a sustained focus on these hospitals will drive adoption of T2Dx, T2Candida and future T2MR-based diagnostics. As a part of this effort, we will continue to work with thought leaders, conduct clinical and health economic studies and seek publication and presentation of these studies.
- **Establish a Recurring, Consumables-Based Business Model.** We intend to pursue a consumables-based business model for our products by securing placements of our T2Dx instrument at hospitals and driving utilization of our diagnostic panels starting with T2Candida. We believe this strategy will foster a sustainable and predictable business model with recurring revenue streams.
- **Broaden Our Addressable Markets in Sepsis and Hemostasis.** Our product development pipeline includes additional instruments and diagnostic panels that provide near-term and complementary market expansion opportunities. Our next sepsis product candidate will focus on bacterial infections, will run on T2Dx and is expected to address the same high-risk patients as T2Candida, while also expanding our reach to a new patient population at increased risk for bacterial sepsis infections. We also are utilizing T2MR to address the challenges of providing rapid hemostasis monitoring. We expect to initiate pivotal clinical trials for our bacterial diagnostic panel, T2Bacteria, and our hemostasis instrument and diagnostic panel, T2Stat and T2HemoStat in the second half of 2015 and the first half of 2016, respectively. We are targeting to commercialize these product candidates in 2017 after obtaining marketing authorization or regulatory clearance.
- **Broaden Our Addressable Markets Beyond Sepsis and Hemostasis.** We intend to expand our product offerings by applying T2MR to new applications beyond sepsis and hemostasis. We plan to conduct internal development and to work with thought leaders, physicians, clinical researchers and business development partners to pursue new applications for T2MR. We believe the benefits of our proprietary technology, including the ability to rapidly and directly detect a broad range of targets, in a wide variety of sample types, will have potential applications within and outside of the *in vitro* diagnostics market, including environmental, food safety, industrial and veterinary applications.
- **Drive International Expansion.** If we receive marketing authorization from the FDA or other regulatory approvals, we plan to commercialize our product candidates in European and other international markets. We are in the process of developing distribution and commercialization strategies for these markets.

## Our Technology Platform

### **T2 Magnetic Resonance Platform Overview**

We have built an innovative and proprietary technology platform that offers a rapid, sensitive and simple alternative to existing diagnostic methodologies. T2MR is a miniaturized, magnetic resonance-based approach that measures how water molecules react in the presence of magnetic fields. Our proprietary platform is capable of detecting a variety of targets, including:

- molecular targets, such as DNA;
- immunodiagnosics, such as proteins; and
- a broad range of hemostasis measurements.

For molecular and immunodiagnosics targets, T2MR utilizes advances in the field of nanotechnology by deploying particles with magnetic properties that enhance the magnetic resonance signals of specific targets. When particles coated with target-specific binding agents are added to a sample containing the target, the particles bind to and cluster around the target. This clustering changes the microscopic environment of water in that sample, which in turn alters the magnetic resonance signal, or the T2 relaxation signal that we measure, indicating the presence of the target.

For hemostasis measurements, particles are not required because T2MR is highly sensitive to changes in viscosity in a blood sample, such as clot formation, stabilization or dissipation, which changes the T2 relaxation signal. This enables the rapid identification of clinically relevant hemostasis changes.

We also believe T2MR is the first technology that can rapidly and accurately detect the presence of molecular targets within samples without the need for time- and labor-intensive purification or extraction of target molecules from the sample, such as that required by traditional polymerase chain reaction, or PCR, where 90% or more of the target can be lost. We can eliminate these steps because the T2 relaxation signal is not compromised or disrupted by the sample background, even the highly complex sample background that is present after a target amplification process, such as thermocycling. This enables T2MR's low limit of detection, such as 1 CFU/mL, compared to the 100 to 1,000 CFU/mL typically required for PCR-based methods. Over 100 studies published in peer-reviewed journals have featured T2MR in a breadth of applications, including the direct detection and measurement of targets in various sample types, such as whole blood, plasma, serum, saliva, sputum and urine. We believe the potential applications for T2MR extend within and outside of the *in vitro* diagnostics market, including environmental, food safety, industrial and veterinary applications.

### **Our Instruments**

Utilizing T2MR, we have developed T2Dx, a bench-top instrument for sepsis and other applications, and we are developing T2Stat, a compact, fully integrated instrument for hemostasis applications.

*T2Dx*



T2Dx is an easy-to-use, bench-top instrument that is capable of running a broad range of diagnostic tests and is fully automated from patient sample input to result, eliminating the need for manual work flow steps such as pipetting that can introduce risks of cross-contamination. To perform a diagnostic test, the patient sample tube is snapped onto our disposable test cartridge, which is pre-loaded with all necessary reagents. The cartridge is then inserted into T2Dx, which automatically processes the sample and then delivers a diagnostic test result.

The initial panels designed to run on T2Dx are T2Candida and T2Bacteria, which are focused on identifying life-threatening pathogens associated with sepsis. We recently completed our pivotal clinical trial for T2Dx and T2Candida, and expect to initiate pivotal clinical trials for T2Bacteria in the second half of 2015.

*T2Stat*

We are also applying T2MR to develop T2Stat, which we believe will be the first compact, fully integrated instrument capable of rapidly providing comprehensive hemostasis measurements. T2Stat will run our T2HemoStat panel, which includes a broad set of hemostasis measurements, including platelet function, clotting time and clot degradation, also known as fibrinolysis. We expect to initiate a pivotal clinical trial for T2Stat and T2HemoStat in the first half of 2016.

The following table reflects our product candidate pipeline currently in development:

Development	Validation	Pivotal Trial	Expected FDA Filing
<b>Instruments</b>			
T2Dx (infectious disease)			Submitted on May 27, 2014
T2Stat (hemostasis)		1H 2016	2017
<b>Diagnostics</b>			
T2Candida (sepsis)			Submitted on May 27, 2014
T2Bacteria (sepsis)		2H 2015	2016
T2HemoStat (hemostasis)		1H 2016	2017

## Sepsis

### Overview

Sepsis is an illness in which the body has a severe, inflammatory response to a bacterial or fungal infection. It is a life-threatening condition to which individuals with weakened immune systems or chronic illnesses are highly susceptible. Sepsis can lead to shock and organ failure, and is a leading cause of death in the United States with a mortality rate of approximately 30%, almost double the mortality rate of acute myocardial infarction, or heart attack.

In 2013, the U.S. Department of Health and Human Services reported that sepsis is the most expensive hospital-treated condition in the United States, with an economic burden to hospitals exceeding \$20 billion annually, almost double that of acute myocardial infarction. The high cost of treating sepsis is primarily driven by the extended hospitalization of patients. We believe there are many effective, targeted therapeutic choices that could reduce overall hospitalization costs if applied earlier, but clinicians need to more rapidly identify the specific sepsis-causing pathogens in order to make more informed, targeted treatment decisions. Today, the diagnostic standard to identify these pathogens is blood culture-based, despite typically requiring two to five days to generate results.

The following table reflects key statistics from the 2013 U.S. Department of Health and Human Services study regarding the five most expensive hospital-treated conditions:

Rank	Condition	U.S. hospital costs (in billions)	Percentage of total inpatient costs
1	Sepsis	\$ 20.3	5.2%
2	Osteoarthritis	14.8	3.8
3	Complication of device, implant or graft	12.9	3.3
4	Liveborn	12.4	3.2
5	Acute myocardial infarction (heart attack)	11.5	3.0

Over 1.6 million individuals are diagnosed with sepsis each year, 1.35 million of whom are at high risk for infection due to their suppressed immune system or their presence in critical care units. Virtually all of these patients are rapidly treated with broad-spectrum antibiotic drugs because there is no diagnostic manner for determining the type of infection. Of these 1.35 million patients with sepsis and at high risk for infection, approximately 40% do not respond to broad-spectrum antibiotic treatment. Of these patients that are non-responsive, approximately 25% of them have a *Candida* infection, with the remaining patients having a bacterial infection. Broad-spectrum antibiotics do not treat these *Candida* and bacterial infections as more targeted drugs are required.

We estimate that approximately 15 million patients are tested for blood stream infections in the United States annually. Of these, approximately 6.75 million are at high risk for a *Candida* infection and an additional two million, or approximately 8.75 million, in total are at high risk for a bacterial infection. We believe that our sepsis product candidates have the potential to enable clinicians to make earlier therapeutic decisions that can reduce the mortality rate for sepsis by over 50% and save the hospitals an estimated \$12 billion annually by testing all high risk patients with T2Candida and T2Bacteria.

There is also a significant market opportunity outside the United States for improved sepsis diagnosis, as this disease burdens other countries with similarly high mortality rates and high costs. Each year, over 18 million cases of sepsis are diagnosed worldwide, with estimated mortalities exceeding five million patients, making it a leading cause of death worldwide.

### Limitations of Traditional In Vitro Diagnostics for Sepsis

The current standard for identifying bloodstream infections that cause sepsis requires a series of lengthy and labor-intensive analyses that begin with blood culture. Completing a blood culture requires a large volume of a patient's blood, typically 20 mLs or more, which is obtained in two 10 mL draws and placed into two blood culture bottles containing nutrients formulated to grow fungi and bacteria. Before blood culture indicates if a patient is infected, pathogens typically must reach a concentration of 1,000,000 to 100,000,000 CFU/mL. This growth process typically takes two to five days because the pathogen's initial concentration in the blood specimen is often less than 10 CFU/mL. A negative test result always requires a minimum of five days. A positive blood culture typically means that some pathogen is present, but additional steps must be performed to identify the specific pathogen in order to provide targeted therapy. These additional steps, which typically must be performed by a highly trained technician, may involve any of (i) a staining procedure for inspection on a microscope slide, (ii) PCR amplification and (iii) mass spectrometry. These steps require a preceding positive blood culture specimen because they need a high concentration of cells generated by the blood culture process for analysis.

For PCR-based diagnostics, there is a requirement for extraction of target cells from the sample into a clear solution, where 90% or more of the cells can be lost. Extraction into a clear solution is needed because existing diagnostic detection methods cannot detect the targeted pathogen due to the complex background of the sample itself. While PCR amplifies the target signal, this loss of target cells impairs the ability to detect, resulting in typical limits of detection of 100 to 1,000 CFU/mL, which is insufficient for species-specific sepsis diagnostics.

Blood culture-based diagnostics have substantial limitations, including:

- **Time to Result Delays Targeted Treatment.** Blood culture-based diagnostics typically require a minimum of two and as many as five or more days to identify a pathogen species, and blood culture always requires at least five days to generate a negative test result.
- **Antimicrobial Therapy Can Cause False Negative Results.** Antimicrobial therapies may be administered to a patient prior to taking a blood sample. As a result, the therapeutic agent is contained in the blood sample and its ability to stop or slow the growth of pathogens can delay or completely inhibit the growth of the pathogen during the blood culture process leading to time delays in detection or false negative results.
- **Slow-Growing Pathogens Can Cause False Negative Results.** Some sepsis pathogens grow slowly or not at all and can require up to five or more days to reach sufficient concentrations to be detected by blood culture-based diagnostics. Blood culture procedures are typically stopped after five days and declared negative. Often, pathogens that grow too slowly are not detected by blood culture during this time frame, leading to a false negative diagnosis. For example, *C. glabrata*, one of the most lethal species of *Candida* due to its growing resistance to antifungal therapy, often requires more than five days of growth to reach a detectable concentration, and therefore is frequently undetected by blood culture.
- **Labor-Intensive Workflow Increases Costs and May Delay Targeted Treatment.** Blood culture is only the first step in identifying a pathogen that causes sepsis. After a blood culture is determined to be positive, highly trained technicians are required to perform multiple post-culture procedures on the blood culture specimen to identify the specific pathogen. These additional procedures can be expensive and time-consuming and may delay targeted treatment.

Given the typical two- to five-day time to result for blood culture-based diagnostics, the first therapy for a patient at risk of sepsis is often broad-spectrum antibiotics, which treat some but not all bacteria types and do not address fungal infections. Some physicians may use first-line, antifungal therapy for patients at very high risk for fungal infection, or use antifungal therapy if the

patient is not responding to broad-spectrum antibiotics while they are still awaiting the blood culture-based result. This therapeutic approach may still not treat the growing number of patients infected with the antimicrobial-resistant species nor may it be the best choice, as the type of therapy is dependent on the specific pathogen causing the infection, which is unknown.

This inefficient therapeutic approach has resulted in unnecessary treatment of a significant number of high-risk patients with expensive and often toxic therapies that can worsen a patient's condition. Such treatments may extend for many days while clinicians await blood culture-based diagnostic results. The overuse of ineffective, or even unnecessary, antimicrobial therapy is also the driving force behind the spread of antimicrobial-resistant pathogens, which the U.S. Centers for Disease Control and Prevention, or the CDC, recently called "one of our most serious health threats." The CDC has specifically noted increasing incidence of *Candida* infections due to azole- and echinocandin-resistant strains and considers it a "serious" threat level. According to the CDC, at least two million people in the United States acquire serious infections each year that are resistant to one or more of the antimicrobial therapies used to treat these patients. At least 23,000 of these people are estimated to die as a direct result of the resistant infections and many more may die from other conditions that are complicated by a resistant infection. Further, antimicrobial-resistant infections add considerable and avoidable costs to the already overburdened U.S. healthcare system, with the total economic cost estimated to be as high as \$20 billion in excess of direct healthcare costs, with additional costs to society as high as \$35 billion, due to lost productivity.

### **Our Solution**

T2MR delivers what we believe no other technology can: a rapid, sensitive and simple diagnostic platform that enables sepsis applications, including T2Candida and T2Bacteria, that can identify specific sepsis pathogens directly from an unpurified blood sample in hours instead of days at a level of accuracy equal to or better than blood culture-based diagnostics. We believe T2MR sepsis applications provide a pathway for more rapid and targeted treatment of infections, potentially reducing the mortality rate by as much as 75% if a patient is treated within 12 hours of suspicion of infection and significantly reducing the cost burden of sepsis. Each year, approximately 500,000 patients in the United States die from sepsis. According to a study published by *Critical Care Medicine* in 2006, in sepsis patients with documented hypotension, administration of effective antimicrobial therapy within the first hour of detection was associated with a survival rate of 79.9% and, over the ensuing six hours, each hour of delay in initiation of treatment was associated with an average decrease in survival of 7.6%; the survival rate for septic patients who remained untreated for greater than 36 hours was approximately 5%.

We believe T2MR sepsis applications address a significant unmet need in *in vitro* diagnostics by providing:

- **Limits of Detection as Low as 1 CFU/mL.** T2MR is the only technology that can enable identification of sepsis pathogens directly from a patient's blood sample at limits of detection as low as 1 CFU/mL.
- **Rapid and Specific Results As Fast As Three Hours.** T2MR is the only technology that can enable species-specific results for pathogens associated with sepsis, directly from a patient's blood sample, without the need for blood culture, to deliver actionable results as fast as three hours.
- **Accurate Results Even in the Presence of Antimicrobial Therapy.** T2MR is the only technology that can reliably detect pathogens associated with sepsis, including slow-growing pathogens, such as *C. glabrata*, directly from a patient's blood sample, even in the presence of an antimicrobial therapy.
- **Easy-to-Use Platform.** T2MR eliminates the need for sample purification or extraction of target pathogens, enabling sample-to-result instruments that can be operated on-site by hospital staff, without the need for highly skilled technicians.

Our first product candidates, T2Dx and T2Candida, focus on the most lethal form of common blood stream infections that cause sepsis, *Candida*, which has an average mortality rate of approximately 40%, and according to a 2005 report published in *Antimicrobial Agents and Chemotherapy*, this high mortality rate can be reduced to 11% with the initiation of targeted therapy within 12 hours of presentation of symptoms. Currently, a typical patient with a *Candida* infection averages 40 days in the hospital, including nine days in intensive care, resulting in an average cost per hospital stay of over \$130,000 per patient. In a study published in the *American Journal of Respiratory and Critical Care Medicine* in 2009, providing targeted antifungal therapy within 24 hours of the presentation of symptoms decreased the length of hospital stay by approximately ten days and decreased the average cost of care by approximately \$30,000 per patient. In addition, many hospitals initiate antifungal drugs, such as Caspofungin or Micafungin, while waiting for blood culture-based diagnostic results. We estimate this practice costs approximately \$500 per patient and is currently in use for over 40% of high-risk patients on average and for all high-risk patients in some hospitals. A negative result from T2Candida can provide timely data allowing physicians to avoid unnecessary antifungal treatment and potentially reduce the treatment cost further.

We believe that by identifying the specific species of *Candida*, physicians can administer the most effective therapy, which will significantly improve patient outcomes and reduce hospital costs. We further believe that the adoption of T2Dx and T2Candida can decrease both the high mortality rate and excessive costs of *Candida* infections because these products can enable clinicians to make earlier and more informed decisions by providing positive test results to direct therapy and negative test results to reduce the use of antifungal drugs.

We are also developing T2Bacteria, a multiplex diagnostic panel that detects the major bacterial pathogens associated with sepsis that are frequently not covered by first-line antibiotics. T2Bacteria will also run on T2Dx, and is expected to address the same approximately 6.75 million symptomatic high-risk patients, as T2Candida while also expanding our reach to a new population of patients who are at increased risk for bacterial infections, including an additional two million people presenting with symptoms of infection in the emergency room setting. We expect that T2Bacteria will achieve similar performance capabilities and provide similar benefits as T2Candida.

## **Clinical Utility**

### *direcT2 Clinical Trial*

We recently completed a pivotal clinical trial for our T2Dx diagnostic instrument and our T2Candida panel, or the direcT2 trial, and have provided the results of that trial to the FDA in conjunction with our *de novo* petition requesting an order authorizing us to market T2Dx and T2Candida. Our direcT2 trial consisted of two patient arms. The first arm, known as the Prospective Arm, consisted of 1,501 samples from patients with a possible infection. The second arm, known as the Contrived Arm, consisted of 300 samples, of which 250 patient specimens were labeled contrived because each contained a known quantity of *Candida* CFUs that were manually added to each sample at clinically relevant concentrations, while the remaining 50 patient specimens were specifically known not to contain *Candida*. The direcT2 trial was designed to evaluate the sensitivity and specificity of T2Candida on the T2Dx instrument.

Sensitivity is the percent concordance, or the percentage of sample results that agree with a reference, or comparative, method for positive results. Specificity is the percent concordance to a reference method for negative results. If a sample does not agree with the result of a referenced method, it is considered discordant. In our clinical trial, the Prospective Arm was compared to blood culture and the Contrived Arm was compared to the known state, which means that it was in the known presence or absence of added *Candida* organisms.

The design of the direcT2 trial was reviewed by the FDA as part of pre-submission communications. The purpose of the direcT2 trial was to determine the clinical performance of T2Candida running on the T2Dx by identifying the following:

- clinical specificity of T2Candida results as compared to *Candida* negative blood culture results in specimens collected from patients in the Prospective Arm;
- clinical specificity of T2Candida results as compared to *Candida* negative samples collected from patients in the Contrived Arm;
- clinical sensitivity of T2Candida results as compared to the known *Candida*-positive specimens collected from patients in the Contrived Arm; and
- clinical sensitivity calculations of T2Candida results compared to the *Candida*-positive blood culture results in specimens collected from patients in the Prospective Arm.

Key findings from the direcT2 trial are:

- the overall sensitivity (Prospective and Contrived Arm combined) of T2Candida was 91.1%;
- the average specificity of the three test results for the Prospective and Contrived Arms combined was 99.4% (see Table A) with the specificity by test result ranging from 98.9% to 99.9% (see Table B);
- in the Contrived Arm of the study, the average specificity was 99.8%, with the specificity by test result ranging from 99.6% to 100% (see Table C);
- in the Prospective Arm of the study, the average specificity was 99.3%, with the specificity by test result ranging from 98.8% to 99.9% (see Table C);
- in the Contrived Arm of the study, the average sensitivity was 91.6%, with the sensitivity by test result ranging from 88.0% to 94.0% (see Table C); and
- in the Prospective Arm of the study, the average sensitivity was 71.4% (see Table C).

In this study, we also observed the following:

- within the Prospective Arm, T2Candida accurately detected a rare co-infection in one study patient with *C. albicans* and *C. parapsilosis* in their bloodstream;
- T2Candida detected at least one infection that was not identified by blood culture, which was determined to be a *Candida* infection seven days after the T2Candida result was obtained. This case is considered a discordant result for the purposes of the FDA filing because of the disagreement between T2Candida and the blood culture-based results, despite the accurate identification by T2Candida, and it indicates that the true sensitivity and specificity of T2Candida may be higher than the reported values;
- the limit of detection, or LoD, of T2Candida was demonstrated to be 1 to 3 CFU/mL depending upon the species of *Candida* (see Table D). In the Contrived Arm of the study, T2Candida positively detected 97.9% of the samples spiked at and above the LoD while also detecting 72.6% of all samples spiked at concentration levels below the LoD (see Table E);
- in the Contrived Arm of the study, T2Candida detected 97% of cases at or above 1 CFU/mL and 70% of cases below 1 CFU/mL (see Table F);



- in the Contrived Arm of the study, T2Candida detected 98% of cases at or above clinically relevant concentrations of *Candida*, ranging from 95% to 100% detection depending on the *Candida* species (see Table G); and
- T2Candida demonstrated an average time to result during the trial of 4.2 hours.

50 known negative samples and 250 contrived samples (50 samples for each of the five *Candida* species included in the T2Candida panel) were prepared and run in a blinded manner at the same clinical sites used for processing the prospective samples. The positive contrived samples were prepared by spiking clinical isolates into individual patient specimens at concentrations determined through publications and discussions with the FDA to be equivalent to the clinical state of patients who presented with symptoms of a *Candida* infection. 20% of the positive contrived samples were spiked at concentrations levels of less than 1 CFU/mL. The contrived samples were collected from patients referred for a diagnostic blood culture per routine standard of care — the same population of patients from whom prospective samples were collected. Unique isolates of the species were used for each patient sample, which means a total of 50 unique isolates were tested for each of the five species of *Candida* for a total of 250 unique isolates.

In addition to the pivotal clinical trial data that we have submitted to the FDA, we provided data from an analytical verification study to determine the LoD for each species identified by our T2Candida panel. The LoD was defined as the lowest concentration of *Candida* that can be detected in 95% of at least 20 samples tested at a single concentration.

The T2Candida panel reports three results, where species are grouped together according to their responsiveness to therapy. *Candida albicans* and/or *Candida tropicalis* are reported as a single result, *Candida parapsilosis* is a single result, and *Candida krusei* and/or *Candida glabrata* are reported as a single result. Specificity and sensitivity are calculated for each reported result.

There are five relevant species of *Candida*, each of which were analyzed in the direct2 trial. Each are listed in abbreviated form in the tables below. These species are *Candida albicans*, *Candida tropicalis*, *Candida parapsilosis*, *Candida krusei*, and *Candida glabrata*. The typical naming convention for a species is to abbreviate by using the first letter of the first word and the full second word, for example, *Candida krusei* is abbreviated as *C. krusei*. In the tables below, we also abbreviate each species name by the first letter of the second word, for example, *Candida albicans* and *Candida tropicalis* is *A/T*.

The following tables illustrate the results of the direct2 trial. The primary sensitivity and specificity analysis is presented in Table A, followed by sub-analyses in Tables B and C. Additional data on the LoD and the time to results of T2Candida and T2Dx are included in the remaining tables.

**Table A**  
**T2Candida Performance Characteristics**

	<u>Overall Sensitivity</u>	<u>Overall Specificity</u>
Number of Tests (%)	234/257 (91.1%)	5114/5146 (99.4%)

**Table B**  
Overall Sensitivity and Specificity by Test

		95% Confidence Interval
<b>Specificity:</b>		
A/T ( <i>C. albicans/C. tropicalis</i> )	1679/1697 (98.9%)	98.3-99.4%
P ( <i>C. parapsilosis</i> )	1736/1749 (99.3%)	98.7-99.6%
K/G ( <i>C. krusei/C. glabrata</i> )	1699/1700 (99.9%)	99.7-100.0%
Total:	5114/5146 (99.4%)	99.1-99.6%
<b>Sensitivity:</b>		
A/T ( <i>C. albicans/C. tropicalis</i> )	96/104 (92.3%)	85.4-96.6%
P ( <i>C. parapsilosis</i> )	49/52 (94.2%)	84.1-98.8%
K/G ( <i>C. krusei/C. glabrata</i> )	89/101 (88.1%)	80.2-93.7%
Total:	234/257 (91.1%)	86.9-94.2%

**Table C**  
Study Arm Sensitivity and Specificity by Test

		95% Confidence Interval
<b>Specificity (Prospective tests):</b>		
A/T ( <i>C. albicans/C. tropicalis</i> )	1479/1497 (98.8%)	98.1-99.3%
P ( <i>C. parapsilosis</i> )	1487/1499 (99.2%)	98.6-99.6%
K/G ( <i>C. krusei/C. glabrata</i> )	1499/1500 (99.9%)	99.6-100.0%
Total:	4465/4496 (99.3%)	99.0-99.5%
<b>Sensitivity (Prospective tests):</b>		
A/T ( <i>C. albicans/C. tropicalis</i> )	2/4 (50.0%)	6.8-93.2%
P ( <i>C. parapsilosis</i> )	2/2 (100.0%)	15.8-100.0%
K/G ( <i>C. krusei/C. glabrata</i> )	1/1 (100.0%)	2.5-100.0%
Total:	5/7 (71.4%)	29.0-96.3%
<b>Specificity (Contrived tests):</b>		
A/T ( <i>C. albicans/C. tropicalis</i> )	200/200 (100.0%)	98.2-100.0%
P ( <i>C. parapsilosis</i> )	249/250 (99.6%)	97.8-100.0%
K/G ( <i>C. krusei/C. glabrata</i> )	200/200 (100.0%)	98.2-100.0%
Total:	649/650 (99.8%)	99.1-100.0%
<b>Sensitivity (Contrived tests):</b>		
A/T ( <i>C. albicans/C. tropicalis</i> )	94/100 (94.0%)	87.4-97.8%
P ( <i>C. parapsilosis</i> )	47/50 (94.0%)	83.5-98.7%
K/G ( <i>C. krusei/C. glabrata</i> )	88/100 (88.0%)	80.0-93.6%
Total:	229/250 (91.6%)	87.4-94.7%

**Table D**  
**T2Candida Limit of Detection**

Species	Final LoD CFU/mL
<i>C. albicans</i>	2
<i>C. tropicalis</i>	1
<i>C. parapsilosis</i>	3
<i>C. glabrata</i>	2
<i>C. krusei</i>	1

**Table E**  
**Sensitivity Sub-Analysis: Sensitivity by Species Relative to LoD**

Species	LoD (CFU/ml)	<sup>3</sup> LoD		< LoD	
		Sensitivity	95% Confidence Interval	Sensitivity	95% Confidence Interval
<i>C. albicans</i>	2	39/39 (100.0%)	91.0-100.0%	9/11 (81.8%)	48.2-97.7%
<i>C. glabrata</i>	2	35/37 (94.6%)	81.8-99.3%	7/13 (53.8%)	25.1-80.8%
<i>C. krusei</i>	1	40/40 (100.0%)	91.2-100.0%	6/10 (60.0%)	26.2-87.8%
<i>C. parapsilosis</i>	3	32/32 (100.0%)	89.1-100.0%	15/18 (83.3%)	58.6-96.4%
<i>C. tropicalis</i>	1	38/40 (95.0%)	83.1-99.4%	8/10 (80.0%)	44.4-97.5%
Total:		184/188 (97.9%)	94.6-99.4%	45/62 (72.6%)	59.8-83.1%

**Table F**  
**Sensitivity Sub-Analysis: Sensitivity by Titer Level**

Species	<1 CFU/ml Sensitivity	1 - 10 CFU/ml Sensitivity	11 - 30 CFU/ml Sensitivity	31 - 100 CFU/ml Sensitivity
<i>C. albicans</i>	8/10 (80.0%)	18/18 (100.0%)	17/17 (100.0%)	5/5 (100.0%)
<i>C. glabrata</i>	5/10 (50.0%)	16/18 (88.9%)	16/17 (94.1%)	5/5 (100.0%)
<i>C. krusei</i>	6/10 (60.0%)	18/18 (100.0%)	17/17 (100.0%)	5/5 (100.0%)
<i>C. parapsilosis</i>	8/10 (80.0%)	17/18 (94.4%)	17/17 (100.0%)	5/5 (100.0%)
<i>C. tropicalis</i>	8/10 (80.0%)	16/18 (88.9%)	17/17 (100.0%)	5/5 (100.0%)
Total:	35/50 (70.0%)	85/90 (94.4%)	84/85 (98.8%)	25/25 (100.0%)

**Table G**  
**Sensitivity Sub-Analysis: Sensitivity by Species Relative to Clinically Relevant Concentrations**

Species	Clinically Relevant Concentration	Sensitivity ‡ Relevant CFU	Sensitivity § Relevant CFU
<i>C. tropicalis</i>	1-10 CFU/mL	80%	95%
<i>C. krusei</i>	11-30 CFU/mL	85.7%	100%
<i>C. glabrata</i>	11-30 CFU/mL	75%	96%
<i>C. albicans</i>	1-10 CFU/mL	80%	100%
<i>C. parapsilosis</i>	11-30 CFU/mL	89.3%	100%
Total		82.7%	98%

**Table H**  
**Time to species identification or negative result for T2MR and Blood Culture**

	Blood Culture	T2Dx
Time to Results (hours)		
Mean ± SD (N)	126.5 ± 27.3 (1470)	4.2 ± 0.9 (1470)
Median	121.0	4.1
(Min, Max)	(12.4, 247.2)	(3.0, 7.5)
Time to Positive Results <sup>(1,2)</sup> (hours)		
Mean ± SD (N)	43.6 ± 11.1 (4)	4.4 ± 1.0 (4)
Median	46.1	4.6
(Min, Max)	(28.1, 54.1)	(3.2, 5.4)
Time to Negative Results <sup>(1,2)</sup> (hours)		
Mean ± SD (N)	126.7 ± 27.0 (1466)	4.2 ± 0.9 (1466)
Median	121.1	4.1
(Min, Max)	(12.4, 247.2)	(3.0, 7.5)

(1) Includes samples that are 100% concordant for both methods (i.e. does not include discordant results).

(2) Refers to time to species identification or final negative result.

*Massachusetts General Hospital Study — Science Translational Medicine*

We co-authored a study with investigators from Massachusetts General Hospital, or MGH, to evaluate the sensitivity and specificity of T2MR to detect *Candida* compared to blood culture-based diagnostics. Results from the study were published in an article entitled "T2 Magnetic Resonance Enables Nanoparticle-Mediated Rapid Detection of Candidemia in Whole Blood" in *Science Translational Medicine* in 2013. In this study:

- T2MR was tested across 320 contrived whole blood samples, each containing one of the five clinically relevant species of *Candida*, and was able to detect each of the species at an LoD ranging from 1 to 3 CFU/mL.
- T2MR was tested across 24 whole blood specimens from patients exhibiting symptoms of sepsis, with eight *Candida* positive, eight bacteria positive and eight negative samples. Results showed 100% sensitivity and 100% specificity of T2MR when compared with blood culture results for identification of *Candida*.
- In patients with *Candida* treated with antifungal therapy, T2MR detected the presence of *Candida* in patient samples drawn up to four days after antifungal administration, while blood culture failed to identify the infection upon administration of antifungal therapy.

*University of Houston Study — Diagnostic Microbiology and Infectious Disease*

We sponsored an independent study at the University of Houston to directly compare the sensitivity and time to result of T2Candida running on T2Dx and blood culture-based diagnostics. In this study, contrived blood samples were split between T2Candida using T2Dx and standard blood culture. The study showed improved performance of T2Candida over blood culture in terms of speed and sensitivity. The following findings were published in an article entitled "Comparison of the T2Dx instrument with T2Candida Diagnostic Panel and Automated Blood Culture in the

Detection of *Candida* Species Using Seeded Blood Samples" in *Diagnostic Microbiology and Infectious Disease* in 2013:

- T2Candida detected all of the samples of *C. glabrata* at concentrations of 2.8 CFU/mL, while blood culture was not able to detect *C. glabrata* in any of the samples, even at a higher concentration of 11 CFU/mL and with the standard five-day run time.
- T2Candida detected all of the samples for all of the species of *Candida* at concentration levels of 3.1 to 11 CFU/mL.
- The average time to species identification was approximately three hours for T2Candida, as opposed to over 60 hours for blood culture.

The following table summarizes the results of our University of Houston study. The five relevant species of *Candida* were analyzed in the University of Houston study.

**Contrived blood samples at concentrations between 3.1 - 11 CFU/mL**

	Blood Culture (n=20 per species)	T2Candida (n=13-20 per species)
Average time to positive result	63.23 ± 30.27 hours	3 hours
	<i>C. albicans</i> = 100%	<i>C. albicans</i> = 100%
	<i>C. tropicalis</i> = 100%	<i>C. tropicalis</i> = 100%
Detection rate	<i>C. parapsilosis</i> = 100%	<i>C. parapsilosis</i> = 100%
	<i>C. glabrata</i> = 0%	<i>C. glabrata</i> = 100%
	<i>C. krusei</i> = 100%	<i>C. krusei</i> = 100%
Sensitivity		100%
Specificity		98%

**Hemostasis**

Another significant unmet clinical need is the diagnosis and management of impaired hemostasis, which is a life-threatening condition in which a patient is unable to promote the formation of blood clots to stabilize excessive bleeding. Within the broader population of patients with symptoms of impaired hemostasis, there are over three million trauma patients in the United States annually. These trauma patients typically face life-threatening injuries or invasive surgical procedures. Approximately 25% of trauma patients have impaired hemostasis, which frequently goes undetected during the initial hospitalization. According to a study in the *Journal of the American College of Surgeons*, for trauma patients with symptoms of impaired hemostasis, mortality was reduced from 45% to 19% with more rapid delivery of therapy. Today, there is no hemostasis diagnostic method that can rapidly provide comprehensive results. We estimate that rapid, targeted treatment for trauma patients with impaired hemostasis can reduce healthcare costs in the United States by nearly \$2 billion each year due to more efficient utilization of scarce and expensive blood products and more rapid patient stabilization, reducing length of hospital stays by approximately 20%.

Because the hemostasis status of trauma patients changes frequently, patients are on average tested three times per trauma episode, which we estimate results in approximately nine million hemostasis tests performed annually on trauma patients in the United States alone. We believe this unmet need represents a nearly \$500 million annual market opportunity, which will be the initial focus for T2Stat and T2HemoStat.

Existing hemostasis screening methods have a range of limitations. Such screening can require:

- up to 24 hours to provide a diagnosis;
- large volumes of blood from patients;
- as many as five separate instruments to provide comprehensive results;
- highly skilled technicians; and
- specialty laboratories.

T2Stat and T2HemoStat utilize T2MR and are designed to provide hemostasis measurements in less than 20 minutes. T2HemoStat is a comprehensive panel of diagnostic tests that can provide data across the hemostasis spectrum, including measurements of clotting time, platelet activity, clot contraction and clot lysis. We believe that T2HemoStat will be the first panel capable of rapidly identifying key coagulation, platelet and other hematologic factors directly from whole blood on a single, easy to operate, compact instrument that will provide all of the following benefits:

- comprehensive results in 20 minutes or less;
- results from clinical samples as small as a finger stick of blood;
- replacement of up to five instruments with one compact instrument;
- easy-to-use system, not requiring highly skilled technicians to operate; and
- small, tabletop instrument that can be used at the point of care.

We expect that existing DRG and Current Procedural Terminology, or CPT codes, will be used to facilitate reimbursement of our hemostasis diagnostic products.

While the panel of HemoStat diagnostic tests currently in development is focused on addressing the unmet need for trauma patients, T2HemoStat can be expanded to add diagnostic tests that can address the needs of the broader population of patients with impaired hemostasis.

We also believe T2MR will be able to identify novel biomarkers with important clinical utility. For example, in a 2014 peer-reviewed article featured on the cover of the journal, *Blood*, T2MR was used to identify a new clot structure that has potential as a novel biomarker which could provide additional actionable information to manage patients with impaired hemostasis after trauma.

### **Sales, Marketing and Distribution**

We intend to drive awareness and adoption of our T2MR technology and related products, if they achieve marketing authorization from the FDA or regulatory clearance, by building a direct sales force in the United States, initially targeting high-volume hospitals, and continuing to educate physicians, key decision makers and thought leaders through publishing scientific data in peer-reviewed journals, presenting at major industry conferences and conducting and supporting clinical studies.

The foundation of our commercialization strategy is to build an experienced, direct sales force consisting of approximately 15 commissioned representatives in the first year of launch. Our sales representatives, employing a clinical data-driven sales approach, will focus on the clinical performance of our products, if approved, the improved outcomes for patients and the economic value for hospitals, including customizable budgetary impact analysis. They will demonstrate the ease-of-use of our products and the advantages of our products over blood culture-based diagnostics. We will continue to invest in our direct sales force as we expand both the array of diagnostic panels and our customer reach.

Our sales force will sell T2Dx and T2Candida, if these product candidates receive marketing authorization from the FDA, directly to hospitals in the United States, initially targeting the 450 hospitals treating the largest number of high-risk patients. We estimate that these 450 centers annually treat an average of over 5,000 symptomatic patients at high risk for a *Candida* infection, representing over one-third of the expected market for T2Candida. If these leading institutions adopt our technology, we expect a positive network effect in the hospital community, accelerating adoption of T2Candida. We believe key aspects of Healthcare Reform, including the focus on cost containment, risk-sharing, and outcomes-based treatment and reimbursement, align with the value proposition of our sepsis products, contributing positively to their adoption. We believe the key decision-makers at hospitals will be infectious disease physicians, laboratory directors, the hospital pharmacy and hospital administrators. In response to the severity and complexity of managing bloodstream infections, a growing number of hospitals have instituted antimicrobial stewardship committees to control hospital practices related to infections, including the use of antibiotic and antifungal therapy. These committees typically include the key decision-makers, and we believe they will provide a central forum to present the benefits of our products. In addition, we plan to continue to publish scientific data in peer-reviewed journals, present at major industry conferences and conduct and support clinical trials to provide additional data relative to the performance of T2Candida to these decision-makers.

Outside of the United States, we expect to seek regulatory approvals in European and other international markets and to launch our platform through distributor partners who will deploy a similar model to our sales approach in the United States.

## **Manufacturing**

We manufacture our proprietary T2Dx instrument and our T2Candida reagent trays at our approximately 6,500 square foot manufacturing facility in Wilmington, Massachusetts. We perform all instrument and tray manufacturing and packaging of final components in accordance with applicable guidelines for medical device manufacturing. We outsource manufacturing of our T2Candida consumable cartridge to a contract manufacturing organization. Our particles are supplied by a sole source supplier, GE Healthcare. We believe we can secure arrangements with other suppliers on commercially reasonable terms for the products and parts we outsource.

We have implemented a quality management system designed to comply with FDA regulations and International Standards Organization, or ISO, standards governing medical device products. These regulations govern the design, manufacture, testing and release of diagnostic products as well as raw material receipt and control. Our key outsourcing partners are ISO-certified.

We plan to continue to manufacture components that we determine are proprietary or require special processes to produce, while outsourcing the manufacture of more commodity-like components. We expect to establish additional outsourcing partnerships as we manufacture more products. We believe our facility in Wilmington, Massachusetts is adequate to meet our current manufacturing needs and that additional manufacturing space is readily available for future expansion.

## **Intellectual Property**

We strive to protect and enhance the proprietary technologies that we believe are important to our business, and seek to obtain and maintain patents for any patentable aspects of our product candidates, including their methods of use and any other inventions that are important to the development of our business. Our success will depend significantly on our ability to obtain and maintain patent and other proprietary protection for commercially important proprietary technology, inventions and know-how related to our business, including our methods, processes and product

candidate designs, and our ability to defend and enforce our patents, maintain our licenses to use intellectual property owned by third parties, preserve the confidentiality of our trade secrets and operate without infringing the valid and enforceable patents and other proprietary rights of third parties. We also rely on trademarks, copyrights, know-how, continuing technological innovation and in-licensing opportunities to develop, strengthen, and maintain our proprietary position in the fields targeted by our product candidates. Protecting these rights is a primary focus in our relationships with other parties, and we seek to protect such rights, in part, by entering into confidentiality and non-disclosure agreements with such third parties and including protections for such proprietary information and intellectual property rights in our other contracts with such third parties, including material transfer agreements, licenses and research agreements.

We are the owner or licensee of an extensive portfolio of patents and patent applications and possess substantial know-how and trade secrets which protect various aspects of our business and product candidates. The patent families comprising our patent portfolio are primarily focused on protection of a range of general and specific attributes of our proprietary assay architecture and assay instrumentation for our T2Candida and T2Bacteria products, as well as protection of certain aspects of the conduct of the assays and detection of analytes. We also own several patent families covering various aspects of our T2HemoStat assay, including the assay architecture and conduct of the analysis. The issued patents in our patent families that cover T2Candida and T2Bacteria are expected to expire between 2023 and 2031, while additional pending applications in these families would be expected to expire, if issued, between 2023 and 2033. Our patent families covering T2HemoStat, if issued, will be expected to expire, between 2026 and 2033. In all cases, the expiration dates are subject to any extension that may be available under applicable law.

## **Patents**

We own 22 patent families, including 16 issued United States patents, 15 issued patents outside of the U.S., 27 pending U.S. patent applications, five pending Patent Cooperation Treaty, or PCT applications, and 33 pending patent applications outside of the U.S. We also hold an exclusive license to three patent families from MGH, including three issued U.S. patents, five issued patents outside of the U.S., three pending U.S. patent applications, and one pending application outside the U.S., which cover various aspects of our T2MR, T2Candida and T2Bacteria products.

### *T2Candida and T2Bacteria*

We are the owner or exclusive licensee of 11 issued U.S. patents and 11 pending U.S. patent applications, as well as 13 issued patents, two pending PCT applications and 11 pending patent applications in jurisdictions outside of the U.S., covering various aspects of T2Candida or T2Bacteria. In particular, U.S. Patent 8,569,078 (the '078 Patent), which is included within the patent rights covered by our exclusive license from MGH, covers our assay method architecture for our T2Candida and T2Bacteria product candidates. We are also the sole owner of issued U.S. patents and pending applications, including foreign counterparts in Australia, Canada, Europe, and Japan that are directed to the device instrumentation and certain components that are specific to the assay itself, including reagents and methods of detection of analytes. Our issued U.S. patents that cover aspects of our T2Candida and/or T2Bacteria product candidates are expected to expire between 2023 and 2031, with the '078 Patent expiring in 2023. In addition to the utility patents included in our patent portfolio, we are also the sole owner of issued design patents and pending applications in the U.S. and foreign jurisdictions that cover certain aspects of the design of our device cartridge and assay tubes.



## *T2HemoStat*

We are the owner of three pending U.S. patent applications, two pending PCT applications and nine pending patent applications in foreign jurisdictions covering various aspects of T2HemoStat, including the device and methods for determining coagulation times and evaluating coagulopathies using the assay. If these applications proceed to issue, the U.S. claims that cover our T2HemoStat product candidates are expected to expire between 2026 and 2033.

### **Patent Term**

The term of individual patents and patent applications listed in previous sections will depend upon the legal term of the patents in the countries in which they are obtained. In most countries, the patent term is 20 years from the date of filing of the patent application (or parent application, if applicable). For example, if an international PCT application is filed, any patent issuing from the PCT application in a specific country generally expires 20 years from the filing date of the PCT application.

### **Proprietary Rights and Processes**

We rely, in some circumstances, on proprietary technology and processes (including trade secrets) to protect our technology. However, these can be difficult to protect. We require all full-time and temporary employees, scientific advisors, contractors and consultants working for us who have access to our confidential information to execute confidentiality agreements in order to safeguard our proprietary technologies, methods, processes, know-how, and trade secrets. We also seek to preserve the integrity and confidentiality of our proprietary technology and processes by maintaining physical security of our premises and physical and electronic security of our information technology systems. All of our full-time and temporary employees and independent contractors and consultants are also bound by invention assignment obligations, pursuant to which rights to all inventions and other types of intellectual property conceived by them during the course of their employment are assigned to us.

While we have confidence in these individuals, organizations and systems, agreements or security measures may be breached, and we may not have adequate remedies for any breach. To the extent that our employees, consultants, scientific advisors, contractors, or any future collaborators use intellectual property owned by others in their work for us, disputes may arise as to the rights in related or resulting know-how and inventions. Further, any of our intellectual property and proprietary rights could be challenged, invalidated, circumvented, infringed or misappropriated, or such intellectual property and proprietary rights may not be sufficient to provide competitive advantages. For more information, please see "Risks Related to Intellectual Property."

### **Trademarks**

We seek trademark and service mark protection in key markets to safeguard our brand and the brands of our product candidates. We intend to file trademark registration applications in the U.S. and foreign jurisdictions to continue to strengthen our brand.

### **License Agreements**

#### *License Agreement with Massachusetts General Hospital*

In 2006, we entered into an exclusive license agreement with MGH, pursuant to which MGH granted to us an exclusive, worldwide, sublicensable license under certain patent rights to make, use, import and commercialize products and processes for diagnostic, industrial and research and

development purposes. In 2008 and 2011, we amended our agreement with MGH to add patent rights and to modify, among other things, our diligence and payment obligations.

We are required to use reasonable commercial efforts to develop and make available to the public products and processes covered by the agreement, and to achieve specified organizational, development and commercialization milestones by specified dates. To date, we have met all of our diligence obligations pursuant to this agreement.

We paid MGH an upfront fee and issued to MGH shares of our common stock equal to a low single-digit percentage of our then-outstanding common stock, subject to limited adjustments to prevent dilution in certain circumstances. In addition, we are responsible for reimbursing MGH's costs associated with prosecution and maintenance of the patent rights licensed to us under the agreement. We will also be required to make payments for achievement of specified regulatory milestones with respect to products and processes covered by the agreement. In addition, we are required to pay an annual license maintenance fee, which is creditable against any royalty payments we are obligated to make to MGH under the agreement.

We will be required to pay royalties to MGH on net sales of products and processes that are covered by patent rights licensed to us under the agreement at percentages in the low single digits, subject to reductions and offsets in specified circumstances. The products and processes covered by the agreement include T2Candida, T2Bacteria and other particle-based T2MR panels that we may develop in the future. Our royalty obligations, if any, and their duration, will depend on the specific patent rights covering the product or process being sold, and the particular category of product or process, as noted above. With respect to T2Candida and T2Bacteria and other potential particle-based T2MR panels we may develop in the future, our obligation to pay royalties to MGH will expire upon the later of ten years after the first commercial sale of the first product or process in the particular category and the expiration of the patent rights licensed to us under the agreement. We will also be required to pay to MGH a low double-digit percentage of specified gross revenue that we receive from our sublicensees. In addition, we will be required to pay royalties to MGH of less than one percent on net sales of specified products and processes that are not covered by the patent rights licensed to us under the agreement. Our obligation to pay royalties to MGH with respect to such products and processes will expire upon the earlier of 12 years after the first commercial sale of the first such product or process and the termination by MGH of all of the licenses granted to us under the agreement.

We have the right to terminate our agreement with MGH for any reason upon 90 days' written notice to MGH. MGH may terminate our agreement in its entirety if we fail to make a payment required under the agreement and do not cure such failure within a specified time period, if we fail to maintain adequate insurance coverage or if we become insolvent. MGH may also terminate our agreement, with respect to a given category of products or processes, on 60 days' notice for our uncured breach with respect to such category of products or processes. Absent earlier termination, our agreement with MGH will remain in force until the later of the expiration or abandonment of the licensed patents and patent applications, and the expiration of our obligations under the agreement.

#### *Sales Agreement with GE Healthcare*

We are currently party to a supply and license agreement with GE Healthcare for the manufacture and supply by GE Healthcare of its proprietary superparamagnetic particles to be used in connection with our product candidates. This agreement with GE Healthcare also grants to us a non-exclusive, worldwide, non-royalty bearing, sublicensable license to use the supplied products for the purposes of research, development, manufacture and sale of our product candidates for *in vitro* industrial diagnostics, human diagnostics and veterinary diagnostics purposes, but not for use in therapeutics. The agreement contains other terms and conditions generally consistent with an

agreement for the manufacture and supply of materials or products for use in the development and commercialization of biotechnology products such as our product candidates, including with respect to ordering, supply of such product in accordance with specifications, and quality assurance and quality control activities. We are obligated to meet certain minimum purchase requirements in each contract year of the agreement during the five-year term.

Either party may terminate the agreement immediately upon the insolvency of the other party, or for uncured breach of the agreement where termination is effective on receipt by the breaching party of a termination notice not less than 30 days after receipt of written notice of a breach. Absent earlier termination, our agreement with GE Healthcare will remain in force until December 31, 2015.

## Competition

We believe we are currently the only diagnostic company developing products with the potential to identify pathogens associated with bloodstream infections in a variety of unpurified patient sample types at limits of detection as low as 1 CFU/mL. Our principal competition will be from a number of companies that offer platforms and applications in our target sepsis and hemostasis markets, most of which are more established commercial organizations with considerable name recognition and significant financial resources.

Companies that currently provide traditional blood culture-based diagnostics include Becton Dickinson & Co. and bioMerieux, Inc. In addition, companies offering post-culture species identification using both molecular and non-molecular methods include bioMerieux, Inc., Bruker Corporation, Cepheid and Siemens AG. These post-culture competitors rely on a positive result from blood culture in order to perform their tests, significantly prolonging their results when compared to T2MR. Some of the products offered by our competitors require hours of extensive hands-on labor by an operator, while some rely on high concentrations of pathogens present in a positive blood culture, which can require a final concentration of at least 1,000,000 CFU/mL. In addition, there may be a number of new market entrants in the process of developing competing technologies.

We believe that we have a number of competitive advantages, including:

- T2MR's ability to detect targets directly in complex and high volume samples, eliminating the need for sample extraction and purification;
- T2MR's ability to detect a broad range of targets, providing a wide variety of potential applications both within and outside of the *in vitro* diagnostics market;
- T2MR's ability to provide rapid and highly-sensitive diagnostic results, which can provide timely information to assist physicians and hospitals to make therapeutic decisions that can improve patient outcomes and reduce healthcare costs;
- our ability to develop easily operable products for end users;
- our initial applications in the field of sepsis that we believe will not require separate reimbursement codes due to the established payment and reimbursement structure in place; and
- our initial applications may provide substantial economic benefits to hospitals that can accrue the savings related to the rapid treatment of sepsis patients.

## Government Regulation

Our products under development and our operations are subject to significant government regulation. In the United States, our products are regulated as medical devices by the FDA and other federal, state, and local regulatory authorities.

## **FDA Regulation of Medical Devices**

The FDA and other U.S. and foreign governmental agencies regulate, among other things, with respect to medical devices:

- design, development and manufacturing;
- testing, labeling, content and language of instructions for use and storage;
- clinical trials;
- product safety;
- marketing, sales and distribution;
- pre-market clearance and approval;
- record keeping procedures;
- advertising and promotion;
- recalls and field safety corrective actions;
- post-market surveillance, including reporting of deaths or serious injuries and malfunctions that, if they were to recur, could lead to death or serious injury;
- post-market approval studies; and
- product import and export.

In the United States, numerous laws and regulations govern all the processes by which medical devices are brought to market and marketed. These include the Federal Food, Drug and Cosmetic Act, or FDCA, and the FDA's implementing regulations, among others.

### **FDA Pre-market Clearance and Approval Requirements**

Each medical device we seek to commercially distribute in the United States must first receive 510(k) clearance, *de novo* down classification, or pre-market approval from the FDA, unless specifically exempted by the FDA. The FDA classifies all medical devices into one of three classes. Devices deemed to pose the lowest risk are categorized as either Class I or II, which requires the manufacturer to submit to the FDA a 510(k) pre-market notification submission requesting clearance of the device for commercial distribution in the United States. Some low risk devices are exempted from this requirement. Devices deemed by the FDA to pose the greatest risk, such as life sustaining, life-supporting or implantable devices, or devices deemed not substantially equivalent to a previously 510(k) cleared device are categorized as Class III. These devices require submission and approval of a premarket approval, or PMA, application.

#### **510(k) Clearance Process**

To obtain 510(k) clearance, we must submit a pre-market notification to the FDA demonstrating that the proposed device is substantially equivalent to a previously-cleared 510(k) device, a device that was in commercial distribution before May 28, 1976 for which the FDA has not yet called for the submission of pre-market approval applications, or is a device that has been reclassified from Class III to either Class II or I. In rare cases, Class III devices may be cleared through the 510(k) process. The FDA's 510(k) clearance process usually takes from three to 12 months from the date the application is submitted and filed with the FDA, but may take significantly longer and clearance is never assured. Although many 510(k) pre-market notifications are cleared without clinical data, in some cases, the FDA requires significant clinical data to support

substantial equivalence. In reviewing a pre-market notification submission, the FDA may request additional information, including clinical data, which may significantly prolong the review process.

After a device receives 510(k) clearance, any subsequent modification of the device that could significantly affect its safety or effectiveness, or that would constitute a major change in its intended use, will require a new 510(k) clearance or could require pre-market approval. The FDA requires each manufacturer to make this determination initially, but the FDA may review any such decision and may disagree with a manufacturer's determination. If the FDA disagrees with a manufacturer's determination, the FDA may require the manufacturer to cease marketing and/or recall the modified device until 510(k) clearance or approval of a PMA is obtained. Under these circumstances, the FDA may also subject a manufacturer to significant regulatory fines or other penalties. In addition, the FDA is currently evaluating the 510(k) process and may make substantial changes to industry requirements, including which devices are eligible for 510(k) clearance, the ability to rescind previously granted 510(k)s and additional requirements that may significantly impact the process.

#### *Pre-market Approval Process*

A PMA application must be submitted if the medical device is in Class III (although the FDA has the discretion to continue to allow certain pre-amendment Class III devices to use the 510(k) process) or cannot be cleared through the 510(k) process. A PMA application must be supported by, among other things, extensive technical, preclinical, clinical trials, manufacturing and labeling data to demonstrate to the FDA's satisfaction the safety and effectiveness of the device.

After a PMA application is submitted and filed, the FDA begins an in-depth review of the submitted information, which typically takes between one and three years, but may take significantly longer. During this review period, the FDA may request additional information or clarification of information already provided. Also during the review period, an advisory panel of experts from outside the FDA will usually be convened to review and evaluate the application and provide recommendations to the FDA as to the approvability of the device. In addition, the FDA will conduct a pre-approval inspection of the manufacturing facility to ensure compliance with Quality System Regulation, or QSR, which imposes elaborate design development, testing, control, documentation and other quality assurance procedures in the design and manufacturing process. The FDA may approve a PMA application with post-approval conditions intended to ensure the safety and effectiveness of the device including, among other things, restrictions on labeling, promotion, sale and distribution and collection of long-term follow-up data from patients in the clinical study that supported approval. Failure to comply with the conditions of approval can result in materially adverse enforcement action, including the loss or withdrawal of the approval. New PMA applications or supplements are required for significant modifications to the manufacturing process, labeling of the product and design of a device that is approved through the PMA process. PMA supplements often require submission of the same type of information as an original PMA application, except that the supplement is limited to information needed to support any changes from the device covered by the original PMA application, and may not require as extensive clinical data or the convening of an advisory panel.

#### *De novo Classification Process*

Medical device types that the FDA has not previously classified as Class I, II, or III are automatically classified into Class III regardless of the level of risk they pose. The Food and Drug Administration Modernization Act of 1997 established a new route to market for low to moderate risk medical devices that are automatically placed into Class III due to the absence of a predicate device, called the "Request for Evaluation of Automatic Class III Designation," or the *de novo* classification procedure. This procedure allows a manufacturer whose novel device is automatically classified into Class III to request down-classification of its medical device into Class I or Class II on

the basis that the device presents low or moderate risk, rather than requiring the submission and approval of a PMA application. Prior to the enactment of the Food and Drug Administration Safety and Innovation Act, or FDASIA, in July 2012, a medical device could only be eligible for *de novo* classification if the manufacturer first submitted a 510(k) premarket notification and received a determination from the FDA that the device was not substantially equivalent. FDASIA streamlined the *de novo* classification pathway by permitting manufacturers to request *de novo* classification directly without first submitting a 510(k) premarket notification to the FDA and receiving a not substantially equivalent determination. Under FDASIA, FDA is required to classify the device within 120 days following receipt of the *de novo* application. If the manufacturer seeks reclassification into Class II, the manufacturer must include a draft proposal for special controls that are necessary to provide a reasonable assurance of the safety and effectiveness of the medical device. In addition, the FDA may reject the reclassification petition if it identifies a legally marketed predicate device that would be appropriate for a 510(k) or determines that the device is not low to moderate risk or that general controls would be inadequate to control the risks and special controls cannot be developed. We plan to utilize the *de novo* classification process to obtain marketing authorization for our T2Dx and T2Candida devices under development, which we believe will be placed within Class II.

#### *Clinical Trials*

A clinical trial is typically required to support a PMA application and is sometimes required for a 510(k) pre-market notification. Clinical trials generally require submission of an application for an Investigational Device Exemption, or IDE, to the FDA. The IDE application must be supported by appropriate data, such as animal and laboratory testing results, showing that it is safe to test the device in humans and that the investigational protocol is scientifically sound. The IDE application must be approved in advance by the FDA for a specified number of patients, unless the product is deemed a non-significant risk device and eligible for more abbreviated IDE requirements. Clinical trials for a significant risk device may begin once the IDE application is approved by the FDA as well as the appropriate institutional review boards, or IRBs, at the clinical trial sites, and the informed consent of the patients participating in the clinical trial is obtained. After a trial begins, the FDA may place it on hold or terminate it if, among other reasons, it concludes that the clinical subjects are exposed to an unacceptable health risk. Any trials we conduct must be conducted in accordance with FDA regulations as well as other federal regulations and state laws concerning human subject protection and privacy. Moreover, the results of a clinical trial may not be sufficient to obtain clearance or approval of the product.

#### *Pervasive and Continuing U.S. Food and Drug Administration Regulation*

After a medical device is placed on the market, numerous FDA regulatory requirements apply, including, but not limited to the following:

- the QSR, which requires manufacturers to follow design, testing, control, documentation and other quality assurance procedures during the manufacturing process;
- establishment registration, which requires establishments involved in the production and distribution of medical devices, intended for commercial distribution in the United States, to register with the FDA;
- medical device listing, which requires manufacturers to list the devices they have in commercial distribution with the FDA;
- labeling regulations, which prohibit "misbranded" devices from entering the market, as well as prohibit the promotion of products for unapproved or "off-label" uses and impose other restrictions on labeling; and

- post-market surveillance including Medical Device Reporting, which requires manufacturers report to the FDA if their device may have caused or contributed to a death or serious injury, or malfunctioned in a way that would likely cause or contribute to a death or serious injury if it were to recur.

The FDA enforces these requirements by inspection and market surveillance. Failure to comply with applicable regulatory requirements may result in enforcement action by the FDA, which may include one or more of the following sanctions:

- untitled letters or warning letters;
- fines, injunctions and civil penalties;
- mandatory recall or seizure of our products;
- administrative detention or banning of our products;
- operating restrictions, partial suspension or total shutdown of production;
- refusing our request for 510(k) clearance or pre-market approval of new product versions;
- revocation of 510(k) clearance or pre-market approvals previously granted; and
- criminal prosecution and penalties.

#### *International Regulation*

Sales of medical devices outside the United States are subject to foreign government regulations, which vary substantially from country to country. In order to market our products in other countries, we must obtain regulatory approvals and comply with extensive safety and quality regulations in other countries. The time required to obtain approval by a foreign country may be longer or shorter than that required for FDA clearance or approval, and the requirements may differ significantly.

#### **Other Healthcare Laws**

Although we currently do not have any products on the market, our current and future business activities are subject to healthcare regulation and enforcement by the federal government and the states and foreign governments in which we conduct our business. These laws include, without limitation, state and federal anti-kickback, fraud and abuse, false claims, privacy and security and physician sunshine laws and regulations.

The federal Anti-Kickback Statute prohibits, among other things, any person from knowingly and willfully offering, soliciting, receiving or providing remuneration, directly or indirectly, overtly or covertly, in cash or in kind, to induce either the referral of an individual, for an item or service or the purchasing, leasing ordering, or arranging for or recommending the purchase, lease or order of any good, facility, item or service, for which payment may be made, in whole or in part, under federal healthcare programs such as the Medicare and Medicaid programs. Although there are a number of statutory exceptions and regulatory safe harbors protecting some common activities from prosecution, the exceptions and safe harbors are drawn narrowly. Practices that involve remuneration that may be alleged to be intended to induce prescribing, purchases or recommendations may be subject to scrutiny if they do not qualify for an exception or safe harbor. Failure to meet all of the requirements of a particular applicable statutory exception or regulatory safe harbor does not make the conduct per se illegal under the Anti-Kickback Statute. Instead, the legality of the arrangement will be evaluated on a case-by-case basis based on a cumulative review of all its facts and circumstances. Several courts have interpreted the statute's intent requirement to

mean that if any one purpose of an arrangement involving remuneration is to induce referrals of federal healthcare covered business, the Anti-Kickback Statute has been violated.

Further, the recently enacted Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act, or collectively, the Affordable Care Act, among other things, amends the intent requirement of the federal Anti-Kickback Statute and certain criminal statute governing healthcare fraud statutes to a stricter standard. A person or entity no longer needs to have actual knowledge of these statutes or specific intent to violate them. In addition, the Affordable Care Act codifies case law that the government may assert that a claim including items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the federal False Claims Act. The majority of states also have anti-kickback laws which establish similar prohibitions and in some cases may apply to items or services reimbursed by any third-party payor, including commercial insurers.

Additionally, the civil False Claims Act prohibits, among other things, knowingly presenting or causing the presentation of a false or fraudulent claim for payment to, or approval by, the U.S. government. In addition to actions initiated by the government itself, the statute authorizes actions to be brought on behalf of the federal government by a private party having knowledge of the alleged fraud. Because the complaint is initially filed under seal, the action may be pending for some time before the defendant is even aware of the action. If the government intervenes and is ultimately successful in obtaining redress in the matter, or if the plaintiff succeeds in obtaining redress without the government's involvement, then the plaintiff will receive a percentage of the recovery. The federal government is using the False Claims Act, and the accompanying threat of significant liability, in its investigation and prosecution of life sciences companies throughout the country, for example, in connection with the promotion of products for unapproved uses and other sales and marketing practices. The government has obtained multi-million and multi-billion dollar settlements under the False Claims Act in addition to individual criminal convictions under applicable criminal statutes. Given the significant size of actual and potential settlements, it is expected that the government will continue to devote substantial resources to investigating healthcare providers' and manufacturers' compliance with applicable fraud and abuse laws.

The federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, created new federal criminal statutes that prohibit, among other actions, knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program, including private third-party payors, and knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false, fictitious or fraudulent statement in connection with the delivery of or payment for healthcare benefits, items or services. Like the Anti-Kickback Statute, the Affordable Care Act amended the intent standard for certain healthcare fraud under HIPAA such that a person or entity no longer needs to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation.

The civil monetary penalties statute imposes penalties against any person or entity that, among other things, is determined to have presented or caused to be presented a claim to a federal health program that the person knows or should know is for an item or service that was not provided as claimed or is false or fraudulent.

Also, as stated above, many states have similar fraud and abuse laws that may be broader in scope and may apply regardless of payor.

Moreover, Section 6002 of the Affordable Care Act included new requirements for device manufacturers, among others, to report certain payments or "transfers of value" provided to physicians and teaching hospitals, and to report ownership and investment interests held by physicians and their immediate family members during the preceding calendar year. Section 6002 of PPACA includes in its reporting requirements a broad range of transfers of value including, but



not limited to, consulting fees, speaker honoraria, charitable contributions, research payments and grants. The Centers for Medicare & Medicaid Services, or CMS, issued its final rule implementing Section 6002 of the Affordable Care Act in February 2013, and required data collection commenced as of August 1, 2013. Manufacturers were required to report aggregated data for August through December of 2013 to CMS by March 31, 2014, and more detailed information regarding the specific payments and transfers of value in the second quarter of 2014. CMS will release the data on a public website by September 30, 2014. Failure to report could subject companies to significant financial penalties. Tracking and reporting the required payments and transfers of value may result in considerable expense and additional resources. Several states currently have similar laws and more states may enact similar legislation, some of which may be broader in scope. For example, certain states require the implementation of compliance programs, compliance with industry ethics codes, implementation of gift bans and spending limits, and/or reporting of gifts, compensation and other remuneration to healthcare professionals.

We also may be subject to data privacy and security regulation by both the federal government and the states in which we conduct our business. HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act, or HITECH, and their respective implementing regulations, including the final omnibus rule published on January 25, 2013, imposes specified requirements relating to the privacy, security and transmission of individually identifiable health information. Among other things, HITECH, through its implementing regulations, makes certain of HIPAA's privacy and security standards directly applicable to business associates, defined as a person or organization, other than a member of a covered entity's workforce, that creates, receives, maintains or transmits protected health information for or on behalf of a covered entity for a function or activity regulated by HIPAA. In addition to HIPAA criminal penalties, HITECH created four new tiers of civil and monetary penalties and gave state attorneys general new authority to file civil actions for damages or injunctions in federal courts to enforce the federal HIPAA laws and seek attorneys' fees and costs associated with pursuing federal civil actions. In addition, state laws govern 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.

The shifting commercial compliance environment and the need to build and maintain robust and expandable systems to comply with different compliance and/or reporting requirements in multiple jurisdictions increase the possibility that a healthcare company may violate one or more of the requirements. If our future operations are found to be in violation of any of such laws or any other governmental regulations that apply to us, we may be subject to penalties, including, without limitation, civil and criminal penalties, damages, fines, the curtailment or restructuring of our operations, exclusion from participation in federal and state healthcare programs and imprisonment, any of which could adversely affect our ability to operate our business and our financial results.

### ***Coverage and Reimbursement***

Maintaining and growing sales of our product candidates, if approved, depends in large part on the availability of adequate coverage and reimbursement from third-party payors, including government programs such as Medicare and Medicaid, private insurance plans and managed care programs. These third-party payors are increasingly limiting coverage and reducing reimbursement for medical products and services. In addition, the U.S. government, state legislatures and foreign governments have continued implementing cost-containment programs, including price controls and restrictions on coverage and reimbursement. Adoption of price controls and cost-containment measures, and adoption of more restrictive policies in jurisdictions with existing controls and measures, could further limit our net revenue and results. Decreases in third-party reimbursement for our product candidates or a decision by a third-party payor to not cover our product candidates

could reduce physician utilization of our products, if approved, and have a material adverse effect on our sales, results of operations and financial condition.

Hospitals, clinical laboratories and other healthcare provider customers that may purchase our product candidates, if approved, generally bill various third-party payors to cover all or a portion of the costs and fees associated with diagnostic tests, including the cost of the purchase of our product candidates. We currently expect that the majority of our diagnostic tests will be performed in a hospital inpatient setting, where governmental payors, such as Medicare, generally reimburse hospitals a single bundled payment that is based on the patients' diagnosis under a classification system known as the Medicare severity diagnosis-related groups, or MS-DRGs, classification for all items and services provided to the patient during a single hospitalization, regardless of whether our diagnostic tests are performed during such hospitalization. To the extent that our diagnostic tests will be performed in an outpatient setting, our product candidates may be eligible for separate payment using existing Current Procedural Terminology, or CPT, codes. Third-party payors may deny coverage, however, if they determine that our products are not cost-effective as determined by the payor, or is deemed by the third-party payor to be experimental or medically unnecessary. We are unable to predict at this time whether our product candidates, if approved, will be covered by third-party payors. Nor can we predict at this time the adequacy of payments, whether made separately in an outpatient setting or with a bundled payment amount in an inpatient setting. Our customers' access to adequate coverage and reimbursement for our product candidates by government and private insurance plans is central to the acceptance of our products. We may be unable to sell our products, if approved, on a profitable basis if third-party payors deny coverage or reduce their current levels of payment, or if our costs of production increase faster than increases in reimbursement levels.

### **Healthcare Reform**

In the United States and foreign jurisdictions, there have been, and we expect there will continue to be, a number of legislative and regulatory changes to the healthcare system seeking, among other things, to reduce healthcare costs that could affect our future results of operations as we begin to directly commercialize our products.

By way of example, in the United States, the Affordable Care Act was signed into law in March 2010, which is expected to substantially change the way healthcare is delivered and financed by both governmental and private insurers. Among other things, the Affordable Care Act:

- imposed an annual excise tax of 2.3% on any entity that manufactures or imports medical devices offered for sale in the United States;
- established a new Patient-Centered Outcomes Research Institute to oversee and identify priorities in comparative clinical effectiveness research in an effort to coordinate and develop such research;
- implemented payment system reforms including a national pilot program on payment bundling to encourage hospitals, physicians and other providers to improve the coordination, quality and efficiency of certain healthcare services through bundled payment models; and
- created an independent payment advisory board that will submit recommendations to reduce Medicare spending if projected Medicare spending exceeds a specified growth rate.

In addition, other legislative changes have been proposed and adopted since the Affordable Care Act was enacted. On August 2, 2011, the President signed into law the Budget Control Act of 2011, which, among other things, created the Joint Select Committee on Deficit Reduction to recommend to Congress proposals in spending reductions. The Joint Select Committee did not

achieve a targeted deficit reduction of at least \$1.2 trillion for the years 2013 through 2021, triggering the legislation's automatic reduction to several government programs. This included reductions to Medicare payments to providers of 2% per fiscal year, which went into effect on April 1, 2013 and will stay in effect through 2014 unless additional congressional action is taken. On January 2, 2013, President Obama signed into law the American Taxpayer Relief Act of 2012, which, among other things, reduced Medicare payments to several providers, including hospitals.

We expect that additional state and federal healthcare reform measures will be adopted in the future, any of which could limit the amounts that federal and state governments will pay for healthcare products and services, which could result in reduced demand for our product candidates, if approved, or additional pricing pressure.

## **Research and Development**

We have committed, and expect to commit, significant resources to developing new technologies and products, improving product performance and reliability and reducing costs. We have assembled an experienced research and development team with the scientific, engineering, software and process talent that we believe is required to successfully grow our business. As of June 30, 2014, our research and development team was comprised of 29 employees, of which nine hold a Ph.D. degree, seven hold a master's of science and 12 hold a bachelor's of science or equivalent. We are currently focused on several product candidates and enhancements utilizing our T2MR platform. We incurred research and development expenses of \$5.1 million for the three months ended March 31, 2014, \$14.9 million for the year ended December 31, 2013 and \$11.7 million for the year ended December 31, 2012. Research and development expenses represented 73.3% of our operating expenses for the three months ended March 31, 2014, 74.8% of our operating expenses for the year ended December 31, 2013 and 79.9% of our operating expenses for the year ended December 31, 2012. Major components of the research and development expenses were salaries and benefits, research-related facility and overhead costs, laboratory supplies, equipment and contract services.

We continuously seek to improve T2MR, including improvements in its technology and accessibility. As we make improvements, we anticipate we will make available new and improved generations of our diagnostic instruments and panels. Our technology developmental efforts are focused on applying T2MR to additional potential applications in the *in vitro* diagnostic area. We are continuing our development of T2Bacteria and expect to initiate clinical trials for T2Bacteria in the second half of 2015. We believe that technical advantage is important to sustainable competitive advantage, and therefore our research and development efforts are focused on the continued enhancement of our T2MR platform. We are dedicated to ongoing innovation to T2MR and expanding our pipeline of product candidates. Our goal is for T2MR to become a standard of care by providing technology that offers a rapid, sensitive and simple diagnostic alternative to existing methodologies for identifying both sepsis and impaired hemostasis, with a long-term objective of targeting the broader *in vitro* diagnostics market.

## **Employees**

As of June 30, 2014, we had 68 full-time permanent employees, of which 24 work in operations, 29 in research and development, 11 in general and administrative and four in sales and marketing. In addition, we employ a number of temporary and contract employees. None of our employees is subject to a collective bargaining agreement.

**Facilities**

Our corporate headquarters is located in Lexington, Massachusetts, where we currently lease approximately 12,500 square feet of office space and 7,600 square feet of laboratory space. Our base rent under this lease, which expires in 2016, is \$0.6 million annually. We also lease approximately 6,500 square feet in Wilmington, Massachusetts for our manufacturing facility, under a lease that expires in 2015 for \$52,500 of base rent annually.

**Legal Proceedings**

We are not party to any material legal proceedings. From time to time, we may be subject to legal proceedings and claims in the ordinary course of business, including but not limited to matters involving employment or intellectual property.

**MANAGEMENT****Executive Officers and Directors**

The following table sets forth the name and position of each of our executive officers and directors and their age as of June 30, 2014.

<b>Name</b>	<b>Age</b>	<b>Position</b>
<b>Executive Officers</b>		
John McDonough	54	President and Chief Executive Officer and Director
Marc R. Jones	38	Chief Financial Officer
Sarah O. Kalil	55	Chief Operating Officer
Thomas J. Lowery, Ph.D.	36	Chief Scientific Officer
Michael A. Pfaller, M.D.	63	Chief Medical Officer
<b>Non-employee Directors</b>		
David B. Aronoff <sup>(4)</sup>	50	Director
Joshua Bilenker, M.D. <sup>(3)</sup>	42	Director
Thomas J. Carella <sup>(2)</sup>	39	Director
Michael J. Cima, Ph.D.	54	Director
Alan Crane <sup>(2)</sup>	50	Director
John W. Cumming <sup>(1)(3)</sup>	68	Director
David B. Elsbree <sup>(1)</sup>	67	Director
Stacy A. Feld <sup>(5)</sup>	41	Director
Robert Langer, D. Sc.	65	Director
Stanley N. Lapidus <sup>(2)</sup>	65	Director
Harry W. Wilcox <sup>(1)</sup>	60	Director

(1) Member of the audit committee.

(2) Member of the compensation committee.

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

(4) Mr. Aronoff will resign from our board of directors prior to the completion of this offering.

(5) Ms. Feld will resign from our board of directors prior to the completion of this offering.

**Executive Officers**

*John McDonough* has served as our President and Chief Executive Officer and a member of our board of directors since November 2007. From 2003 to 2007, Mr. McDonough held various positions at Cytyc Corporation, a company engaged in the design, development, manufacturing and marketing of clinical products that focus on women's health, where he ultimately served as President of Cytyc Development Corporation. Mr. McDonough received his B.S.B.A. from Stonehill College. Mr. McDonough's extensive management experience as a senior executive and his diagnostic company experience contributed to our board of directors' conclusion that he should serve as a director of our company.

*Marc R. Jones* has served as our Chief Financial Officer since April 2013. From January 2013 to March 2013, Mr. Jones was Chief Financial Officer of Crashlytics, a mobile device software company, until its acquisition by Twitter. From January 2012 to January 2013, Mr. Jones was Chief Financial Officer of Fluidnet, a medical device company. From June 2007 to August 2011, Mr. Jones was Chief Financial Officer of CHiL Semiconductor, a power management solutions company until

its acquisition by International Rectifier. Mr. Jones received his M.S. in finance from Northeastern University and his B.S. in economics and finance from Southern New Hampshire University.

*Sarah O. Kalil* has served as our Chief Operating Officer since August 2013. From August 2010 to August 2013, Ms. Kalil was Chief Operating Officer of Interlace Medical, a medical device company, which was acquired by Hologic, Inc., a diagnostics company. From April 2009 to August 2010, Ms. Kalil was President and Chief Operating Officer of Boston Endo-Surgical Technologies, a medical device company. From 2002 to 2009, Ms. Kalil was Operations Director of Innovend, a medical molding company. Ms. Kalil is a member of the Massachusetts General Hospital Cancer Patient and Family Advisory Council and on the board of the Pleiades Foundation. Ms. Kalil received her B.S. in engineering from the University of Vermont.

*Thomas J. Lowery, Ph.D.* has served as our Chief Scientific Officer since September 2013. Since joining our company in 2007, Dr. Lowery has held various technical leadership roles in the assay, methods, reagents and detector development programs. Prior to joining our company, Dr. Lowery conducted research at the University of California Berkeley focused on developing innovative magnetic resonance based biosensors for molecular imaging. Dr. Lowery received his Ph.D. in chemistry from the University of California, Berkeley and his B.S. in biochemistry from Brigham Young University.

*Michael A. Pfaller, M.D.* has served as our Chief Medical Officer since March 2014. From 2005 until he joined our company, Dr. Pfaller was a consultant to JMI Laboratories, managing the *in vitro* testing of fungal and bacterial isolates. From 1983 to 2005, he was Clinical Director of Clinical Microbiology Laboratory at the University of Iowa, as well as Interim Director of Clinical Laboratories from 1984 to 1985. He currently serves as Co-Editor in Chief of the *American Society for Microbiology Manual of Clinical Microbiology*, 11<sup>th</sup> edition and as co-editor of the 8<sup>th</sup> edition of *Medical Microbiology*. Dr. Pfaller received his M.D. from the Washington University School of Medicine and his B.A. in chemistry from Linfield College.

#### **Directors**

*David B. Aronoff* has served as a member of our board of directors since January 2014. Mr. Aronoff is a General Partner at Flybridge Capital Partners, a venture capital firm, a position he has held since 2005. From 1996 to 2005, Mr. Aronoff was a General Partner at Greylock Partners, a venture capital firm, and held management roles at Chipcom, an enterprise network equipment and software vendor, and AT&T Bell Laboratories. Mr. Aronoff received his B.S. in computer science from the University of Vermont, his M.S. in computer science from the University of Southern California and his M.B.A. from Harvard Business School. Mr. Aronoff's experience working in the venture capital industry and experience working with and serving on the boards of directors of numerous technology companies contributed to our board of directors' conclusion that he should serve as a director of our company.

*Joshua Bilenker, M.D.* has served as a member of our board of directors since 2011. Dr. Bilenker is Chief Executive Officer of Loxo Oncology, a biotechnology company focused on cancer therapeutics. He is also a partner at Aisling Capital, a position he has held since 2006. Prior to Aisling Capital, Dr. Bilenker was a Medical Officer in the Office of Oncology Drug Products at the FDA from 2004 to 2006. Dr. Bilenker received his M.D. from The Johns Hopkins School of Medicine and his B.A. from Princeton. Dr. Bilenker's extensive experience at the FDA and as an investor in life science companies contributed to our board of directors' conclusion that he should serve as a director of our company.

*Thomas J. Carella* has served as a member of our board of directors since March 2013. Mr. Carella is a Managing Director in the Merchant Banking Division of Goldman, Sachs & Co. and Global Head of the division's private equity activities in the healthcare sector, a position he has held

since 2012. He previously served on the board of directors of KAR Auction Services, a provider of vehicle auction services in North America, from 2007 to 2013. Mr. Carella received his B.A. from Harvard College and his M.B.A. from Harvard Business School. Mr. Carella's management experience, including his extensive experience in business strategy for healthcare companies, contributed to our board of directors' conclusion that he should serve as a director of our company.

*Michael J. Cima, Ph.D.* is one of our founders and has served as a member of our board of directors since 2006. Since 1986, Dr. Cima has been a Professor of Materials Science and Engineering at Massachusetts Institute of Technology, or MIT, and he currently holds the David H. Koch Engineering Chair and an appointment at the Koch Institute for Integrative Cancer Research. Dr. Cima received his B.S. in chemistry and his Ph.D. in chemical engineering, both from the University of California at Berkeley. Dr. Cima's extensive life science experience and knowledge of the diagnostics industry contributed to our board of directors' conclusion that he should serve as a director of our company.

*Alan Crane* has served as a member of our board of directors since November 2007. Mr. Crane joined Polaris Partners in 2002 and is a partner and entrepreneur focused on building and investing in healthcare companies. From 2006 to 2009, he served as Chief Executive Officer and co-founder of Cerulean Pharma, Inc., an oncology company. From 2002 to 2006, Mr. Crane served as Chief Executive Officer and, from 2001 to 2010, a director of Momenta Pharmaceuticals, a biotechnology company. Prior to Momenta, Mr. Crane held the position of Senior Vice President of Corporate Development at Millennium Pharmaceuticals, Inc. Mr. Crane received his M.B.A., M.A. and B.A. from Harvard University. Mr. Crane's breadth of management experience in the life science industry contributed to our board of directors' conclusion that he should serve as a director of our company.

*John W. Cumming* has served as a member of our board of directors since July 2014. Mr. Cumming currently serves as Chief Executive Officer and Managing Director of Cumming & Associates LLC, a strategic advisory firm serving the healthcare industry. From August 2000 until December 2013, Mr. Cumming served in a number of leadership roles at Hologic Inc., a diagnostics company, including as Chief Executive Officer from 2001 through 2009 and again from July 2013 through December 2013, as President from 2001 until 2003, as Chairman of the Board from 2002 until 2007 and again from 2008 through 2011, and as Global Strategic Advisor from 2011 through July 2013. Mr. Cumming attended the University of South Carolina. Mr. Cumming's extensive knowledge of and experience with diagnostic product companies and expertise as a strategic advisor focused on the healthcare industry contributed to our board of directors' conclusion that he should serve as a director of our company.

*David Elsbree* has served as a member of our board of directors since July 2014. From 1970 until 2004, Mr. Elsbree was employed by Deloitte & Touche, most recently as a former senior partner. Mr. Elsbree served in a number of leadership roles in the firm's high technology practice, including partner-in-charge of the New England High Technology Practice. Mr. Elsbree served on the board of directors of Art Technology Group, Inc. from June 2004 until January 2011 and on the board of directors of Acme Packet, Inc. from November 2006 until March 2013. Mr. Elsbree received his B.A. from Northeastern University. Mr. Elsbree's extensive knowledge of and experience with technology companies and financial expertise contributed to our board of directors' conclusion that he should serve as a director of our company.

*Stacy A. Feld* has served as a member of our board of directors since May 2010. Ms. Feld has been a Partner at Physic Ventures, a venture capital firm, since 2009. From 2004 to 2008, Ms. Feld was Associate Director of Business Development at Genentech, Inc., a biotechnology company. Ms. Feld received her B.A. in sociology from the University of Pennsylvania and her J.D. from Vanderbilt Law School. Ms. Feld's experience working with and investing in life science companies

and her experience in the venture capital industry contributed to our board of directors' conclusion that she should serve as a director of our company.

*Robert Langer, D. Sc.* is one of our founders and has served as a member of our board of directors since 2006. Dr. Langer has been an Institute Professor at MIT since 2005, and prior to that was an Assistant Professor at MIT since 1978. Dr. Langer served as a member of the FDA's SCIENCE Board, the FDA's highest advisory board, from 1995 until 2002 and as its Chairman from 2002 until 2009. Dr. Langer has received the National Medal of Science, National Medal of Technology and Innovation, Wolf Prize in Chemistry, Charles Stark Draper Prize, Albany Medical Center Prize in Medicine and Biomedical Research and the Lemelson-MIT prize. Dr. Langer was elected to the Institute of Medicine, the National Academy of Engineering and the National Academy of Sciences. Dr. Langer currently serves on the board of directors of Advanced Cell Technology and Bind Therapeutics. He previously served as a director of Momenta Pharmaceuticals from 2001 to 2009, Wyeth from 2004 to 2009, Fibrocell Science from 2010 to 2012 and Millipore Corporation from 2009 to 2010. Dr. Langer received his B.A. from Cornell University and his Sc.D. from MIT, both in chemical engineering. Dr. Langer's extensive experience with the FDA and in academic medicine, including as the recipient of numerous awards in recognition of his research, contributed to our board of directors' conclusion that he should serve as a director of our company.

*Stanley N. Lapidus* has served as a member of our board of directors since August 2008. Mr. Lapidus is President and Chief Executive Officer of SynapDx, an autism early detection company he founded in 2009. From 2003 to 2008, Mr. Lapidus was Chief Executive Officer of Helicos Biosciences, a life science company he co-founded in 2003. From 1995 to 2001, he was Chief Executive Officer of EXACT Sciences, a colorectal cancer diagnostics company he founded in 1995. From 1987 to 1994, he was Chief Executive Officer of Cytoc Corp., a cervical cancer diagnostics company he founded in 1987. Mr. Lapidus holds academic appointments at Tufts University and MIT. He received his B.S. in engineering from Cooper Union. Mr. Lapidus' experience as a senior executive and his knowledge of life science companies contributed to our board of directors' conclusion that he should serve as a director of our company.

*Harry W. Wilcox* has served as a member of our board of directors since January 2011. Mr. Wilcox has been Chief Operating Officer and General Partner of Flagship Ventures, a venture capital firm, since 2013. From 2006 to 2013, he was Chief Financial Officer and Partner of Flagship Ventures. From 2004 to 2006, he was Chief Financial Officer and Senior Vice President of Corporate Development of EXACT Sciences. Mr. Wilcox received his M.B.A. from Boston University and his B.S. in Finance from the University of Arizona. Mr. Wilcox's experience leading successful healthcare and technology companies, and his experience as a venture investor, contributed to our board of directors' conclusion that he should serve as a director of our company.

## **Board Composition and Election of Directors**

### ***Board Composition***

Our board of directors is currently comprised of twelve members. Two of our directors, David Aronoff and Stacy Feld, will resign from our board of directors prior to the completion of this offering. The members of our board of directors were elected in compliance with the provisions of the voting agreement among us and our major stockholders. The voting agreement will terminate upon the closing of this offering, and we will have no further contractual obligations regarding the election of our directors. See "Certain Relationships and Related Person Transactions." Our directors hold office until their successors have been elected and qualified or until their earlier death, resignation or removal.

Our restated certificate of incorporation and amended and restated bylaws that will become effective upon the closing of this offering provide that the authorized number of directors may be



changed only by resolution of our board of directors. Our restated certificate of incorporation and amended and restated bylaws also provide that our directors may be removed only for cause by the affirmative vote of the holders of at least two-thirds of the votes that all our stockholders would be entitled to cast in an annual election of directors, and that any vacancy on our board of directors, including a vacancy resulting from an enlargement of our board of directors, may be filled only by vote of a majority of our directors then in office.

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

- the class I directors will be \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_, and their terms will expire at our first annual meeting of stockholders following this offering;
- the class II directors will be \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_, and their terms will expire at our second annual meeting of stockholders following this offering; and
- the class III directors will be \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_, and their terms will expire at the third annual meeting of stockholders following this offering.

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.

In selecting board members, our board may consider many factors, such as personal and professional integrity, ethics and values; experience in corporate management, such as serving as an officer or former officer of a publicly held company; experience as a board member or executive officer of another publicly held company; diversity of expertise and experience in substantive matters pertaining to our business relative to other board members; and diversity of background and perspective, including, but not limited to, with respect to age, gender, race, place of residence and specialized experience.

**Director Independence**

Applicable rules of the NASDAQ Stock Market, or NASDAQ, require a majority of a listed company's board of directors to be comprised of independent directors within one year of listing. In addition, the NASDAQ rules require that, subject to specified exceptions, each member of a listed company's audit, compensation, and nominating and corporate governance committees be independent, that compensation committee members meet a heightened independence test and that audit committee members also satisfy independence criteria set forth in Rule 10A-3 under the Securities Exchange Act of 1934, as amended, or the Exchange Act. Under applicable NASDAQ rules, a director will only qualify as an "independent director" if, in the opinion of the listed company's board of directors, that person does not have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director. In order to be considered independent for purposes of Rule 10A-3, a member of an audit committee of a listed company may not, other than in his or her capacity as a member of the audit committee, the board of directors or any other board committee, accept, directly or indirectly, any consulting, advisory or other compensatory fee from the listed company or any of its subsidiaries or otherwise be an affiliated person of the listed company or any of its subsidiaries. In order to be considered independent for purposes of the compensation committee, the board of directors must consider all factors specifically relevant to determining whether a director has a relationship with us which is

material to that director's ability to be independent from management in connection with the duties of a compensation committee member, including, but not limited to: (i) the source of compensation of such director, including any consulting, advisory or other compensatory fee paid by us to such director; and (ii) whether such director is affiliated with us, one of our subsidiaries or an affiliate of a subsidiary of ours.

Our board of directors has determined that        are "independent directors" as defined under applicable NASDAQ rules. In making such determination, our board of directors considered the relationships that each such non-employee director has with our company and all other facts and circumstances that our board of directors deemed relevant in determining his or her independence, including the beneficial ownership of our capital stock by each non-employee director. Mr. McDonough is not an independent director under these rules because he is our Chief Executive Officer and        is not an independent director under these rules because of his consulting relationship with us. Please see the section of this prospectus titled "Certain Relationships and Related Person Transactions".

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

#### **Board Committees**

Our board has established three standing committees — audit, compensation, and nominating and corporate governance — each of which operates under a charter that has been approved by our board. Current copies of each committee's charter will be posted on the Corporate Governance section of our website at [www.t2biosystems.com](http://www.t2biosystems.com). The reference to our website address does not constitute incorporation by reference of the information contained at or available through our website, and you should not consider it to be a part of this prospectus.

#### **Audit Committee**

Our audit committee is composed of Michael Cima, David Elsbree and Harry Wilcox, with Mr. Elsbree serving as chairman of the committee. Our board of directors has determined that each member of the audit committee meets the independence requirements of the Sarbanes-Oxley Act of 2002, Rule 10A-3 under the Exchange Act and the applicable listing standards of NASDAQ. Our board of directors has determined that Messrs. Cima, Elsbree and Wilcox are each "audit committee financial experts" within the meaning of the SEC regulations and applicable listing standards of NASDAQ. The audit committee's responsibilities include:

- appointing, approving the compensation of, and assessing the independence of our registered public accounting firm;
- overseeing the work of our registered public accounting firm, including through the receipt and consideration of reports from such firm;
- reviewing and discussing with management and the registered public accounting firm our annual and quarterly financial statements and related disclosures;
- monitoring our internal control over financial reporting, disclosure controls and procedures and our code of business conduct and ethics;
- discussing our risk management policies;
- establishing policies regarding hiring employees from the registered public accounting firm and procedures for the receipt and retention of accounting related complaints and concerns;

- meeting independently with our internal auditing staff, if any, registered public accounting firm and management;
- reviewing and approving or ratifying any related person transactions; and
- preparing the audit committee report required by SEC rules.

#### **Compensation Committee**

Our compensation committee is composed of Thomas Carella, Alan Crane and Stanley Lapidus, each of whom is a non-employee member of our board of directors as defined in Rule 16b-3 under the Exchange Act and an "outside director" as defined under Section 162(m) of the Internal Revenue Code of 1986, as amended. Mr. Lapidus will serve as chairman of the committee. Our board of directors has determined that each member of the compensation committee is "independent" as defined under the applicable listing standards of NASDAQ, including the standards specific to members of a compensation committee. The compensation committee's responsibilities include:

- determining our Chief Executive Officer's compensation;
- reviewing and approving, or making recommendations to our board with respect to, the compensation of our other executive officers;
- overseeing an evaluation of our senior executives;
- overseeing and administering our cash and equity incentive plans;
- reviewing and making recommendations to our board with respect to director compensation;
- reviewing and discussing annually with management our "Compensation Discussion and Analysis," if applicable; and
- preparing the annual compensation committee report required by SEC rules, if applicable.

#### **Nominating and Corporate Governance Committee**

Our nominating and corporate governance committee is composed of Joshua Bilenker and John Cumming. Mr. Bilenker will serve as chairman of the committee. Our board of directors has determined that each member of the nominating and corporate governance committee is "independent" as defined under the applicable listing standards of NASDAQ and SEC rules and regulations. The nominating and corporate governance committee's responsibilities include:

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

#### **Compensation Committee Interlocks and Insider Participation**

During 2013, the members of our compensation committee were Mr. Carella, Mr. Lapidus, and Mr. Crane, each of whom is affiliated with certain of our principal stockholders. See "Certain

Relationships and Related Person Transactions" for additional information on the securities acquired by such principal stockholders and related agreements such stockholders are party to with us. None of our executive officers serves as a member of the board of directors or compensation committee, or other committee serving an equivalent function, of any other entity that has one or more of its executive officers serving as a member of our board of directors or compensation committee. None of the members of our compensation committee has ever been employed by us. For a description of transactions between us and members of our compensation committee and affiliates of such members, please see the section of this prospectus titled "Certain Relationships and Related Person Transactions".

#### **Code of Business Conduct and Ethics**

We have adopted a code of business conduct and ethics that applies to all of our employees, officers and directors, including those officers responsible for financial reporting. Upon the closing of this offering, our code of business conduct and ethics will be available on our website. We intend to disclose any amendments to the code, or any waivers of its requirements, as required by NASDAQ or SEC rules, on our website.

**EXECUTIVE AND DIRECTOR COMPENSATION**

This section discusses the material components of the executive compensation program offered to our named executive officers, or our NEOs, identified below. For 2013, our NEOs were:

- John McDonough, President and Chief Executive Officer;
- Marc R. Jones, Chief Financial Officer; and
- Sarah O. Kalil, Chief Operating Officer.

This discussion may contain forward-looking statements that are based on our current plans, considerations, expectations and determinations regarding future compensation programs. Actual compensation programs that we adopt following the closing of this offering may differ materially from the currently planned programs summarized in this discussion.

We are an "emerging growth company," within the meaning of the JOBS Act, and have elected to comply with the reduced compensation disclosure requirements available to emerging growth companies under the JOBS Act.

**Summary Compensation Table**

The following summarizes the total compensation awarded to, earned by or paid to our NEOs for their service to us in 2013:

<b>Name and Principal Position</b>	<b>Year</b>	<b>Salary (\$)<sup>(1)</sup></b>	<b>Option Awards (\$)<sup>(2)</sup></b>	<b>Non-Equity Incentive Plan Compensation (\$) <sup>(3)</sup></b>	<b>Total (\$)</b>
John McDonough President and Chief Executive Officer	2013	350,000	310,942	66,000	726,942
Marc R. Jones Chief Financial Officer	2013	171,881	312,411	26,500	510,792
Sarah O. Kalil Chief Operating Officer	2013	89,789	311,780	26,500	428,069

- (1) Represents base salary earned during 2013. Mr. Jones joined our company on April 8, 2013, and Ms. Kalil joined our company on August 12, 2013.
- (2) Represents the aggregate grant date fair value of the option awards granted during 2013 computed in accordance with FASB ASC Topic 718, excluding the effect of estimated forfeitures. For a description of the assumptions used in valuing these awards, see note 9 to our audited financial statements included elsewhere in this prospectus.
- (3) Represents awards earned under our annual cash incentive bonus program. For additional information regarding these amounts, see the section titled "Narrative Disclosure to Summary Compensation Table — Cash Bonuses" below.

**Narrative Disclosure to Summary Compensation Table**

The primary elements of compensation for our NEOs are base salary, cash bonuses and long-term equity-based compensation awards. The NEOs also participate in employee benefit plans and programs that we offer to our other full-time employees on the same basis.

### Base Salary

Our NEOs receive base salary to compensate them for the satisfactory performance of duties to our company. The base salary payable to each NEO is intended to provide a fixed component of compensation reflecting the executive's skill set, experience, role and responsibilities. Base salaries for our NEOs have generally been set at levels deemed necessary to attract and retain individuals with superior talent. Base salaries for Mr. Jones and Ms. Kalil were negotiated in connection with their commencing employment with us during 2013. Mr. McDonough did not receive a base salary increase during 2013.

### Cash Bonuses

Each of our NEOs is eligible to participate in an annual cash incentive bonus program which provides participants with an opportunity to earn cash bonus awards based on individual and company performance. The target annual bonus levels for Mr. Jones and Ms. Kalil are 15% of their respective annual base salaries. Mr. McDonough's target annual bonus for 2013 was \$110,000.

Objectives for the 2013 annual bonus program were established in January 2013 by our compensation committee and generally related to attaining clinical, business development and financing milestones and publication, commercialization and operational goals.

In January 2014, our board of directors reviewed the performance of our NEOs against the applicable goals and, based on its evaluation and the recommendation of our compensation committee, determined to award each NEO an annual cash incentive bonus in the amount set forth in the "Non-Equity Incentive Plan Compensation" column of the Summary Compensation Table above.

### Equity-Based Compensation

We generally offer stock options to our employees, including our NEOs, as the long-term incentive component of our compensation program. We typically grant options to employees when they commence employment with us and may thereafter grant additional options in the discretion of our board of directors. Our stock options generally allow employees to purchase shares of our common stock at a price equal to the fair market value of our common stock on the date of grant, as determined by the board of directors, and may be intended to qualify as "incentive stock options" under the Internal Revenue Code.

Our stock options typically vest as to 25% of the shares subject to the option on the first anniversary of the date of grant and in equal monthly installments over the ensuing 36 months, subject to the holder's continued employment with us. From time to time, our board of directors may also construct alternate vesting schedules as it determines are appropriate to motivate particular employees. Stock options granted to our employees may be subject to accelerated vesting in certain circumstances, including as described below for our NEOs in the sections titled "Employment Letter Agreements" and "Potential Payments upon a Change in Control".

We awarded stock options to our NEOs during 2013 in the following amounts:

<u>Named Executive Officer</u>	<u>2013 Options Granted (#)</u>
John McDonough	282,250
Marc R. Jones	282,250
Sarah O. Kalil	282,250

These options were granted with exercise prices equal to the fair market of our common stock on the date of grant, as determined by our board of directors. The options granted to Ms. Kalil and Mr. Jones vest as to 25% of the shares subject to the option on the first anniversary of their

respective employment commencement dates and in equal monthly installments over the ensuing 36 months. The option granted to Mr. McDonough vests as to 25% of the shares subject to the option on September 25, 2014 and in equal monthly installments over the ensuing 36 months.

In July 2014, we granted Mr. McDonough an additional option to purchase 112,900 shares of our common stock at an exercise price of \$6.29 per share. This option vests in 48 equal monthly installments following the date of grant.

In connection with this offering, we intend to adopt a new incentive plan to facilitate the grant of cash and equity incentives to our directors, employees and consultants and to enable our company to obtain and retain the services of these individuals. Additional information about our new incentive plan is provided in the section titled "2014 Incentive Award Plan" below.

*Retirement, Health, Welfare and Additional Benefits*

Our NEOs are eligible to participate in our employee benefit plans and programs, including medical and dental benefits, flexible spending accounts and short- and long-term disability and life insurance, to the same extent as our other full-time employees, subject to the terms and eligibility requirements of those plans. Our NEOs are also eligible to participate in a tax-qualified 401(k) defined contribution plan to the same extent as all of our other full-time employees. Currently, we do not match contributions made by participants in the 401(k) plan or make other contributions to participant accounts.

**Outstanding Equity Awards at 2013 Fiscal Year-End**

The following table summarizes the outstanding equity awards held by our NEOs as of December 31, 2013.

Name	Vesting Commencement Date	Number of Securities Underlying Unexercised Options Exercisable (#)	Option Awards		
			Number of Securities Underlying Unexercised Options Unexercisable (#) <sup>(1)</sup>	Option Exercise Price (\$)	Option Expiration Date
John McDonough	9/25/2013	—	282,250	1.89	10/24/2023
	1/17/2012	158,484	172,266	1.44	1/17/2022
	6/24/2010	210,559	30,082	1.15	9/14/2020
	2/27/2009	19,940	—	0.68	2/27/2019
	1/16/2009	79,571	—	0.68	1/16/2019
Marc R. Jones	4/8/2013	—	282,250	1.89	6/25/2023
Sarah O. Kalil	8/12/2013	—	282,250	1.89	9/25/2023

(1) All unvested options vest as to 25% of the total shares subject to the option on the first anniversary of the vesting commencement date and in equal monthly installments over the ensuing 36 months, subject to the holder's continued employment with us through the applicable vesting date and potential accelerated vesting as described in the sections titled "Employment Letter Agreements" and "Potential Payments upon a Change in Control" below.

**Employment Letter Agreements**

We have entered into employment letter agreements with each of our NEOs. Certain key terms of these agreements are described below.

**John McDonough**

We entered into an employment letter agreement with Mr. McDonough on March 14, 2008. This agreement entitles Mr. McDonough to receive an initial annual base salary of \$300,000, subject to periodic increases at the discretion of the board of directors, and an annual bonus opportunity of up to \$75,000, with the amount of any such bonus based primarily on the overall performance of our company, measured against goals that are mutually agreed between Mr. McDonough and our compensation committee early in each applicable year. If Mr. McDonough's employment is terminated without cause (other than in connection with a change in control), he is entitled to receive six months of base salary continuation and a lump-sum payment in an amount equal to 50% of the maximum annual bonus which he could have earned for the year of termination. If Mr. McDonough's employment is terminated by us without cause within the three months preceding or the 12 months following a change in control or if Mr. McDonough resigns his employment for good reason within the 12 months following a change in control, he will be entitled to receive 12 months of base salary continuation and a lump-sum payment in an amount equal to 50% of the maximum annual bonus which he could have earned for the year of termination.

Mr. McDonough's employment letter agreement also contains restrictive covenants pursuant to which he has agreed to refrain from competing with us or soliciting our customers or prospective customers for one year following his termination of employment.

**Marc R. Jones**

We entered into an employment letter agreement with Mr. Jones on March 8, 2013. This agreement entitles him to an initial annual base salary of \$235,000 and an annual bonus up to 15% of his annual base salary. This agreement further provides that if a change in control occurs after which Mr. Jones is no longer employed by the surviving entity following the change in control, (i) he will be entitled to receive six months of base salary continuation and six months of company paid healthcare continuation pursuant to COBRA and (ii) 50% of the unvested stock options held by him will immediately vest if the change in control occurs within 12 months of his employment commencement date or 100% of the unvested stock options held by him will immediately vest if the change in control occurs more than 12 months following his employment commencement date.

Mr. Jones has also entered into a non-compete, non-disclosure and invention assignment agreement with us pursuant to which he has agreed to refrain from disclosing our confidential information indefinitely and from competing with us or soliciting our employees or consultants for 12 months following termination of his employment.

**Sarah O. Kalil**

We entered into employment letter agreement with Ms. Kalil on July 19, 2013. This agreement entitles her to an initial annual base salary of \$230,000 and an annual bonus up to 15% of her annual base salary. This agreement further provides that if a change in control occurs and Ms. Kalil is no longer employed by the surviving entity following the change in control, 50% of the unvested stock options held by her will immediately vest if the change in control occurs within 12 months of her employment commencement date or 100% of the unvested stock options held by her will immediately vest if the change in control occurs more than 12 months following her employment commencement date.

Ms. Kalil has also entered into a non-compete, non-disclosure and invention assignment agreement with us pursuant to which she has agreed to refrain from disclosing our confidential information indefinitely and from competing with us or soliciting our employees or consultants for 12 months following termination of her employment.



## Potential Payments upon a Change in Control

As described above, under the terms of their employment letter agreements, Mr. McDonough, Mr. Jones and Ms. Kalil may become entitled to certain payments or benefits for certain terminations of employment that occur in connection with a change in control.

The agreements governing Mr. McDonough's unvested stock options provide for full accelerated vesting if his employment is terminated without cause or if he resigns for good reason within 12 months following a change in control.

## Incentive Plans

### 2014 Incentive Award Plan

In connection with this offering, we intend to adopt a 2014 Incentive Award Plan, or the 2014 Plan, subject to approval by our stockholders, under which we may grant cash and equity incentive awards to eligible service providers in order to attract, motivate and retain the talent for which we compete. The material terms of the 2014 Plan, as it is currently contemplated, are summarized below. Our board of directors is still in the process of developing, approving and implementing the 2014 Plan and, accordingly, this summary is subject to change.

#### *Eligibility and Administration*

Our employees, consultants and directors, and the employees, consultants and directors of our subsidiaries, will be eligible to receive awards under the 2014 Plan. Following our initial public offering, the 2014 Plan will be administered by our board of directors with respect to awards to non-employee directors and by our compensation committee with respect to other participants, each of which may delegate its duties and responsibilities to committees of our directors or officers (referred to collectively as the plan administrator below), subject to certain limitations that may be imposed under Section 16 of the Exchange Act and stock exchange rules, as applicable. The plan administrator will have the authority to make all determinations and interpretations under, prescribe all forms for use with, and adopt rules for the administration of, the 2014 Plan, subject to its express terms and conditions. The plan administrator will also set the terms and conditions of all awards under the 2014 Plan, including any vesting and vesting acceleration conditions.

#### *Limitation on Awards and Shares Available*

An aggregate of \_\_\_\_\_ shares of our common stock will initially be available for issuance under awards granted pursuant to the 2014 Plan. The number of shares initially available for issuance will be increased by (i) the number of shares represented by awards outstanding under our Amended and Restated 2006 Employee, Director and Consultant Stock Plan, or the 2006 Plan, that are forfeited, lapse unexercised or are settled in cash and which following the effective date of the 2014 Plan are not issued under the 2006 Plan and (ii) an annual increase on January 1 of each calendar year beginning in 2015 and ending in 2024, equal to the lesser of (A) \_\_\_\_\_ shares, (B) \_\_\_\_\_ % of the shares of common stock outstanding (on an as converted basis) on the final day of the immediately preceding calendar year and (C) such smaller number of shares as determined by our board of directors. No more than \_\_\_\_\_ shares of common stock may be issued upon the exercise of incentive stock options. Shares issued under the 2014 Plan may be authorized but unissued shares, or shares purchased in the open market.

If an award under the 2014 Plan is forfeited, expires or is settled for cash, any shares subject to such award may, to the extent of such forfeiture, expiration or cash settlement, be used again for new grants under the 2014 Plan. Awards granted under the 2014 Plan upon the assumption of, or in substitution for, awards authorized or outstanding under a qualifying equity plan maintained by

an entity with which we enter into a merger or similar corporate transaction will not reduce the shares available for grant under the 2014 Plan. The maximum number of shares of our common stock that may be subject to one or more awards granted to any non-employee director for services as a director pursuant to the 2014 Plan during any calendar year will be \_\_\_\_\_, provided that a non-employee director may be granted awards under the 2014 Plan for services as a director for any one year in excess of such amount if the total awards granted to the director under the 2014 Plan for services as a director in the year do not have a grant date fair value, as determined in accordance with FASB ASC Topic 718 (or any successor thereto) in excess of \$ \_\_\_\_\_.

#### Awards

The 2014 Plan provides for the grant of stock options, including incentive stock options, or ISOs, and nonqualified stock options, or NSOs, restricted stock, dividend equivalents, stock payments, restricted stock units, or RSUs, performance shares, other incentive awards, stock appreciation rights, or SARs, and cash awards. No determination has been made as to the types or amounts of awards that will be granted to specific individuals pursuant to the 2014 Plan. Certain awards under the 2014 Plan may constitute or provide for a deferral of compensation, subject to Section 409A of the Internal Revenue Code, which may impose additional requirements on the terms and conditions of such awards. All awards under the 2014 Plan will be set forth in award agreements, which will detail the terms and conditions of the awards, including any applicable vesting and payment terms and post-termination exercise limitations. Awards other than cash awards generally will be settled in shares of our common stock, but the plan administrator may provide for cash settlement of any award. A brief description of each award type follows.

- **Stock Options.** Stock options provide for the purchase of shares of our common stock in the future at an exercise price set on the grant date. ISOs, by contrast to NSOs, may provide tax deferral beyond exercise and favorable capital gains tax treatment to their holders if certain holding period and other requirements of the Internal Revenue Code are satisfied. The exercise price of a stock option generally will not be less than 100% of the fair market value of the underlying share on the date of grant (or 110% in the case of ISOs granted to certain significant stockholders), except with respect to certain substitute options granted in connection with a corporate transaction. The term of a stock option may not be longer than ten years (or five years in the case of ISOs granted to certain significant stockholders). Vesting conditions determined by the plan administrator may apply to stock options and may include continued service, performance and other conditions.
- **SARs.** SARs entitle their holder, upon exercise, to receive from us an amount equal to the appreciation of the shares subject to the award between the grant date and the exercise date. The exercise price of a SAR will generally not be less than 100% of the fair market value of the underlying share on the date of grant (except with respect to certain substitute SARs granted in connection with a corporate transaction), and the term of a SAR may not be longer than ten years. Vesting conditions determined by the plan administrator may apply to SARs and may include continued service, performance and other conditions.
- **Restricted Stock, RSUs and Performance Shares.** Restricted stock is an award of nontransferable shares of our common stock that remain forfeitable unless and until specified conditions are met, and which may be subject to a purchase price. RSUs are contractual promises to deliver shares of our common stock in the future, which may also remain forfeitable unless and until specified conditions are met. Delivery of the shares underlying RSUs may be deferred under the terms of the award or at the election of the participant, if the plan administrator permits such a deferral. Performance shares are contractual rights to receive a range of shares of our common stock in the future based on \_\_\_\_\_.

the attainment of specified performance goals, in addition to other conditions which may apply to these awards. Conditions applicable to restricted stock, RSUs and performance shares may be based on continuing service, the attainment of performance goals and such other conditions as the plan administrator may determine.

- *Stock Payments, Other Incentive Awards and Cash Awards.* Stock payments are awards of fully vested shares of our common stock that may, but need not, be made in lieu of base salary, bonus, fees or other cash compensation otherwise payable to any individual who is eligible to receive awards. Other incentive awards are awards other than those enumerated in this summary that are denominated in, linked to or derived from shares of our common stock or value metrics related to our shares, and may remain forfeitable unless and until specified conditions are met. Cash awards are cash incentive bonuses subject to performance goals.
- *Dividend Equivalents.* Dividend equivalents represent the right to receive the equivalent value of dividends paid on shares of our common stock and may be granted alone or in tandem with awards. Dividend equivalents are credited as of dividend record dates during the period between the date an award is granted and the date such award vests, is exercised, is distributed or expires, as determined by the plan administrator.

#### *Performance Awards*

Performance awards include any of the foregoing awards that are granted subject to vesting or payment based on the attainment of specified performance goals or other criteria the plan administrator may determine, which may or may not be objectively determinable. Performance criteria upon which performance goals are established by the plan administrator may include but are not limited to: (i) net earnings (either before or after one or more of (A) interest, (B) taxes, (C) depreciation and (D) amortization); (ii) gross or net sales or revenue; (iii) net income (either before or after taxes); (iv) adjusted net income; (v) operating earnings or profit; (vi) cash flow (including, but not limited to, operating cash flow and free cash flow); (vii) return on assets; (viii) return on capital; (ix) return on stockholders' equity; (x) total stockholder return; (xi) return on sales; (xii) gross or net profit or operating margin; (xiii) costs; (xiv) expenses; (xv) working capital; (xvi) earnings per share; (xvii) adjusted earnings per share; (xviii) price per share; (xix) regulatory body approval for commercialization of a product; (xx) implementation, completion or attainment of objectives relating to research, development, regulatory, commercial, or strategic milestones or developments; (xxi) market share; (xxii) economic value; (xxiii) revenue and (xxiv) revenue growth.

#### *Certain Transactions*

The plan administrator has broad discretion to take action under the 2014 Plan, as well as to make adjustments to the terms and conditions of existing and future awards, to prevent the dilution or enlargement of intended benefits and facilitate necessary or desirable changes in the event of certain transactions and events affecting our common stock, such as stock dividends, stock splits, mergers, acquisitions, consolidations and other corporate transactions. In addition, in the event of certain non-reciprocal transactions with our stockholders known as "equity restructurings," the plan administrator will make equitable adjustments to the 2014 Plan and outstanding awards. In the event of a change of control of our company (as defined in the 2014 Plan) or a reorganization, merger, liquidation or similar corporate transaction, or any other unusual or non-recurring transactions affecting us or our financial statements, or a change in applicable accounting principles or law, the plan administrator may (i) terminate awards for cash or replace awards with other property or rights; (ii) provide that outstanding awards will be assumed or substituted by a successor entity; (iii) adjust the number and types of shares subject to outstanding awards; (iv) provide that outstanding awards will be fully vested and exercisable; or (v) terminate any

outstanding awards. Individual award agreements may provide for additional accelerated vesting and payment provisions.

*Foreign Participants, Claw-Back Provisions, Transferability and Participant Payments*

The plan administrator may modify award terms, establish subplans and adjust other terms and conditions of awards, subject to the share limits described above. All awards will be subject to the provisions of any claw-back policy implemented by our company to the extent set forth in such claw-back policy or in the applicable award agreement. With limited exceptions for estate planning, domestic relations orders, certain beneficiary designations and the laws of descent and distribution, awards under the 2014 Plan are generally non-transferable prior to vesting, and are exercisable only by the participant. With regard to tax withholding, exercise price and purchase price obligations arising in connection with awards under the 2014 Plan, the plan administrator may, in its discretion, accept cash or check, shares of our common stock that meet specified conditions, a "market sell order" or such other consideration as it deems suitable.

*Plan Amendment and Termination*

Our board of directors may amend or terminate the 2014 Plan at any time; however, except in connection with certain changes in our capital structure, stockholder approval will be required for any amendment that increases the number of shares available under the 2014 Plan. The plan administrator will have the authority, without the approval of our stockholders, to amend any outstanding stock option or SAR to reduce its price per share. No award may be granted pursuant to the 2014 Plan after the tenth anniversary of the date on which our board of directors adopts the 2014 Plan.

***Amended and Restated 2006 Employee, Director and Consultant Stock Plan***

Our board of directors and stockholders have approved the 2006 Plan, under which we may grant stock options and other stock-based awards to employees, directors and consultants of our company or its affiliates. We have reserved a total of 6,332,882 shares of our common stock for issuance under the 2006 Plan.

Following the effectiveness of the 2014 Plan, we will not make any further grants under the 2006 Plan. However, the 2006 Plan will continue to govern the terms and conditions of the outstanding awards granted under it. As discussed above, we anticipate that shares of our common stock subject to awards granted under the 2006 Plan that are forfeited, lapse unexercised or are settled in cash and which following the effective date of the 2014 Plan are not issued under the 2006 Plan will be available for issuance under the 2014 Plan.

*Administration*

Our board of directors administers the 2006 Plan and has the authority to determine recipients of awards and the terms of awards granted under the 2006 Plan, to interpret the 2006 Plan and awards outstanding thereunder, to buy out awards outstanding under the 2006 Plan for a payment in cash or shares of our common stock or cancel any such awards and substitute other awards therefor, including awards with an exercise price per share that is less than the exercise price per share of the replaced award, and to make changes to awards outstanding under the 2006 Plan, provided that such changes may not impair a participant's rights under the plan without the participant's consent. All such powers are exercised in the context of preserving the tax status of options granted under the plan that are intended to be ISOs. The board of directors may delegate its authority under the 2006 Plan to a committee. Following the effectiveness of this offering, our

board of directors may delegate its general administrative authority under the 2006 Plan to its compensation committee.

*Types of Awards*

The 2006 Plan provides for the grant of non-qualified and incentive stock options, stock grants and other stock-based awards to employees, directors and consultants of our company or its affiliates. As of the date of this prospectus, awards of incentive stock options and non-qualified stock options are outstanding under the 2006 Plan.

*Certain Transactions*

If certain changes are made in, or events occur with respect to, our common stock, the 2006 Plan and outstanding awards will be appropriately adjusted in the class, number and, as applicable, exercise price of securities as determined by the plan administrator. In the event of certain corporate transactions of our company, including a consolidation, merger, sale of all or substantially all of our assets or a liquidation, our board of directors (or the board of a surviving entity assuming our company's obligations under the 2006 Plan) may make appropriate provision for the continuation or equitable substitution of outstanding awards, provide for the assumption or replacement of outstanding stock options, terminate awards for a cash payment equal to the excess of the fair market value of the underlying shares over the exercise or purchase price of the applicable award or provide that all stock options will terminate if not exercised within a specified number of days. The vesting and exercisability of awards may accelerate in connection with such a transaction, either by action of the plan administrator or under the terms of the applicable award agreements.

*Amendment and Termination*

The plan administrator may terminate, modify or amend the 2006 Plan from time to time, provided that any amendment or modification may not adversely affect a participant's rights under the 2006 Plan without the participant's consent. Any amendment the plan administrator determines is of a scope that requires stockholder approval will be subject to approval by our stockholders. The 2006 Plan will terminate on July 20, 2016, if not earlier terminated by the board of directors or our stockholders.

**Director Compensation**

We have not historically provided annual cash retainers or other compensation to our directors but have, from time to time, granted stock option awards to certain directors as compensation for their service on our board. Mr. McDonough, our President and Chief Executive Officer, also serves as a member of our board of directors but does not receive any additional compensation for providing these services.

The following table provides information regarding the compensation earned by our non-employee directors during the year ended December 31, 2013.

<b>Name</b>	<b>Option Awards (\$) (1)</b>	<b>All Other Compensation (\$)(2)</b>	<b>Total (\$)</b>
David B. Aronoff	—	—	—
Joshua Bilenker, M.D.	—	—	—
Thomas J. Carella	—	—	—
Michael J. Cima, Ph.D.	108,374	40,000	148,374
Alan Crane	—	—	—
Stacy A. Feld	—	—	—
Robert Langer, D. Sc.	108,374	40,000	148,374
Stanley N. Lapidus	27,622	—	27,622
Harry W. Wilcox	—	—	—

- (1) Represents the aggregate grant date fair value of the option awards granted during 2013 computed in accordance with FASB ASC Topic 719 excluding the effect of estimated forfeitures. For a description of the assumptions used in valuing these awards, see note 9 to our audited financial statements included elsewhere in this prospectus. As of December 31, 2013, Drs. Langer and Cima each held options to purchase a total of 200,000 shares of our common stock, and Mr. Lapidus held options to purchase 175,000 shares of our common stock. No other non-employee director held any option awards and none of our non-employee directors held any stock awards as of December 31, 2013.
- (2) Represents consulting fees earned by Drs. Langer and Cima for 2013 under their respective consulting agreements with our company. See "Certain Relationships and Related Person Transactions — Consulting Agreements" for a description of these agreements.

**CERTAIN RELATIONSHIPS AND RELATED PERSON TRANSACTIONS**

The following includes a summary of transactions since January 1, 2011 to which we have been a party in which the amount involved exceeded or will exceed \$120,000, and in which any of our directors, executive officers or, to our knowledge, beneficial owners of more than 5% of our capital stock or any member of the immediate family of any of the foregoing persons had or will have a direct or indirect material interest, other than equity and other compensation, termination, change in control and other arrangements, which are described under "Executive and Director Compensation". We also describe below certain other transactions with our directors, executive officers and stockholders.

**Preferred Stock Financings****Series D Preferred Stock Financing**

In August 2011, we sold 5,054,945 shares of series D preferred stock to new and existing investors at a price of \$4.55 per share, resulting in proceeds of \$23.0 million.

**Series E Preferred Stock Financing**

In March 2013, we sold 6,930,967 shares of series E preferred stock to new and existing investors at a price of \$5.7712 per share, resulting in proceeds of \$40.0 million.

The following table sets forth the aggregate number of these securities acquired by the listed holders of more than 5% of our capital stock or their affiliated entities and one member of our board of directors. Each share of our preferred stock identified in the following table will convert into one share of common stock upon the closing of this offering.

<b>Participant</b>	<b>Series D</b>	<b>Series E</b>
<b>5% or Greater Stockholders<sup>(1)</sup></b>		
Broad Street Principal Investments, LLC	—	4,331,858
Polaris Partners	629,852	631,133
Flagship Ventures Fund	629,851	631,133
Aisling Capital III, L.P.	2,967,033	549,851
Flybridge Capital Partners	369,792	370,544
Physic Ventures	247,934	248,437
<b>Member of our Board of Directors<sup>(2)</sup></b>		
Michael Cima, Ph.D.	—	4,332

(1) Additional details regarding these stockholders and their equity holdings are provided under the caption "Principal Stockholders".

(2) Additional details regarding this member of our board of directors and his equity holdings are provided under the caption "Principal Stockholders".

The following directors are associated with our 5% or greater stockholders:

<b>Director</b>	<b>Principal Stockholder</b>
Thomas J. Carella	Broad Street Principal Investments, LLC
Alan Crane	Polaris Partners
Harry W. Wilcox	Flagship Ventures Fund
Joshua Bilenker, M.D.	Aisling Capital III, L.P.
David B. Aronoff	Flybridge Capital Partners
Stacy A. Feld	Physic Ventures

## **Employment Letter Agreements**

We have entered into employment letter agreements with our named executive officers. For more information regarding the agreements with our named executive officers, see "Executive and Director Compensation — Employment Letter Agreements".

## **Investors' Rights Agreement**

In connection with our series E preferred stock financing, we entered into a fourth amended and restated investors' rights agreement with holders of our preferred stock, including certain holders of 5% of our capital stock and entities affiliated with certain of our directors. The investors' rights agreement, among other things, grants these stockholders specified registration rights with respect to shares of our common stock, including shares of common stock issued or issuable upon conversion of the shares of preferred stock held by them. For more information regarding the registration rights provided in these agreements, please refer to the section entitled "Description of Capital Stock — Registration Rights".

## **Consulting Agreements**

In June 2006, we entered into consulting agreements with Drs. Langer and Cima, pursuant to which we agreed to pay Drs. Langer and Cima quarterly compensation for their services to our company. The annual compensation increased to \$40,000 each upon the achievement of raising \$20.0 million in equity financing, license transaction payments, corporate research/partnership or licensing deals of such value, grants of such value, sales of such value or any combination of the foregoing. The total compensation expense for the years ended December 31, 2013 and 2012 and from April 27, 2006 (inception) to December 31, 2013 was \$80,000, \$80,000 and \$385,000, respectively. For more information regarding the compensation paid to Drs. Langer and Cima, see "Executive and Director Compensation — Director Compensation".

## **Indemnification Agreements**

We intend to enter into indemnification agreements with each of our directors and executive officers. These agreements, among other things, require us or will require us to indemnify each director (and in certain cases their related venture capital funds) and executive officer to the fullest extent permitted by Delaware law, including indemnification of expenses such as attorneys' fees, judgments, fines and settlement amounts incurred by the director or executive officer in any action or proceeding, including any action or proceeding by or in right of us, arising out of the person's services as a director or executive officer.

## **Stock Option Grants to Executive Officers and Directors**

We have granted stock options to our executive officers and certain of our directors as more fully described in the section entitled "Executive and Director Compensation".

## **Policies and Procedures for Related Person Transactions**

Our board of directors has adopted a written related person transaction policy, to be effective upon the closing of this offering, setting forth the policies and procedures for the review and approval or ratification of related person transactions. This policy will cover, with certain exceptions set forth in Item 404 of Regulation S-K under the Securities Act, any transaction, arrangement or relationship, or any series of similar transactions, arrangements or relationships, in which we were or are to be a participant, where the amount involved exceeds \$120,000 in any fiscal year and a related person had, has or will have a direct or indirect material interest, including without limitation, purchases of goods or services by or from the related person or entities in which the related person



has a material interest, indebtedness, guarantees of indebtedness and employment by us of a related person. In reviewing and approving any such transactions, our audit committee considers all relevant facts and circumstances, including, but not limited to, whether the transaction is on terms comparable to those that could be obtained in an arm's length transaction and the extent of the related person's interest in the transaction. All of the transactions described in this section occurred prior to the adoption of this policy.

## PRINCIPAL STOCKHOLDERS

The following table sets forth information with respect to the beneficial ownership of our common stock, as of June 30, 2014, and as adjusted to reflect the sale of shares of common stock in this offering, by:

- each person or group of affiliated persons known by us to beneficially own more than 5% of our common stock;
- each of our named executive officers;
- each of our directors and persons who will be directors upon the closing of this offering; and
- all of our executive officers and directors as a group.

The number of shares beneficially owned by each stockholder is determined under rules issued by the SEC. Under these rules, beneficial ownership includes any shares as to which the individual or entity has sole or shared voting power or investment power. Applicable percentage ownership is based on \_\_\_\_\_ shares of common stock outstanding as of June 30, 2014, assuming the conversion of all outstanding shares of preferred stock into common stock and the net exercise of all outstanding warrants into common stock, assuming an initial public offering price of \$ \_\_\_\_\_ per share, which is the midpoint of the price range set forth on the cover page of this prospectus. In computing the number of shares beneficially owned by an individual or entity and the percentage ownership of that person, shares of common stock subject to options held by such person that are currently exercisable or will become exercisable within 60 days of June 30, 2014 are considered outstanding, although these shares are not considered outstanding for purposes of computing the percentage ownership of any other person. Unless noted otherwise, the address of all listed stockholders is 101 Hartwell Avenue, Lexington, Massachusetts. Each of the stockholders listed has sole voting and investment power with respect to the shares beneficially owned by the stockholder unless noted otherwise, subject to community property laws where applicable.

Name of Beneficial Owner	Number of Shares Beneficially Owned Prior to Offering	Percentage of Shares Beneficially Owned	
		Prior to Offering	After Offering
<b>5% or Greater Stockholders</b>			
Entities affiliated with Broad Street Principal Investments, LLC <sup>(1)</sup>	4,331,858		
Entities affiliated with Polaris Partners <sup>(2)</sup>	4,036,773		
Entities affiliated with Flagship Ventures Fund <sup>(3)</sup>	4,036,772		
Aisling Capital III, L.P. <sup>(4)</sup>	3,516,884		
Entities affiliated with Flybridge Capital Partners <sup>(5)</sup>	2,370,029		
Physic Ventures, L.P. <sup>(6)</sup>	1,589,028		
<b>Named Executive Officers and Directors</b>			
John McDonough <sup>(7)</sup>	825,091		
Marc R. Jones <sup>(8)</sup>	94,083		
Sarah O. Kalil <sup>(9)</sup>	70,562		
David B. Aronoff <sup>(5)</sup>	2,370,029		
Joshua Bilenker, M.D. <sup>(4)</sup>	3,516,884		
Thomas J. Carella <sup>(1)</sup>	4,331,858		
Michael J. Cima, Ph.D. <sup>(10)</sup>	434,887		
Alan Crane <sup>(2)</sup>	4,036,773		
John W. Cumming	—		
David B. Elsbree	—		
Stacy A. Feld <sup>(6)</sup>	1,589,028		
Robert Langer, D. Sc. <sup>(11)</sup>	430,555		
Stanley N. Lapidus <sup>(12)</sup>	134,895		
Harry W. Wilcox <sup>(3)</sup>	4,036,772		
All executive officers and directors as a group (16 persons) <sup>(13)</sup>	22,044,178		

\* Less than 1%.

- (1) Includes (a) 3,638,761 shares of common stock held by Broad Street Principal Investments, LLC, (b) 537,150 shares of common stock held by Bridge Street 2013 Holdings, L.P. and (c) 155,947 shares of common stock held by MBD 2013 Holdings, L.P., collectively the GS Entities. The GS Entities, of which affiliates of the Goldman Sachs Group, Inc. are the general partner, managing general partner or investment manager, share voting and investment power with certain of its respective affiliates. Mr. Thomas J. Carella is a Managing Director of Goldman, Sachs & Co. and may be deemed to have beneficial ownership of the shares held by the GS Entities. The Goldman Sachs Group, Inc., Goldman, Sachs & Co. and Mr. Carella each disclaim beneficial ownership of the shares held directly or indirectly by the GS Entities, except to the extent of its pecuniary interest therein, if any. The address of the GS Entities, the Goldman Sachs Group, Inc., Goldman, Sachs & Co. and Mr. Carella is c/o The Goldman Sachs Group, 200 West Street, New York, New York 10282.
- (2) Includes (a) 3,895,222 shares of common stock held by Polaris Venture Partners V, L.P., or Polaris V, (b) 75,917 shares of common stock held by Polaris Venture Partners Entrepreneurs' Fund V, L.P., or Polaris EFund V, (c) 38,952 shares of common stock held by Polaris Venture Partners Special Founders' Fund V, L.P., or Polaris SFFund V, and (d) 26,682 shares of common stock held by Polaris Venture Partners Founders' Fund V, L.P., or Polaris FFund,

collectively, the Funds. Each of the Funds has the sole voting and investment power with respect to the shares directly held by it. The general partner of each of the Funds is Polaris Venture Management Co. V, LLC, or Polaris Management. Polaris Management may be deemed to have sole voting and investment power with respect to the shares held by the Funds and disclaims beneficial ownership of all the shares held by the Funds except to the extent of its proportionate pecuniary interest therein. The members of North Star Venture Management 2000, LLC, Terrence McGuire and Jonathan Flint, collectively the Management Members, are also members of Polaris Management, and as members of the general partner, they may be deemed to share voting and investment power over the shares held by the Funds. The Management Members disclaim beneficial ownership of such shares, except to the extent of their proportionate pecuniary interest therein. Alan Crane, one of our directors, is a partner of Polaris Management. Mr. Crane disclaims beneficial ownership of all the shares held by the Funds except to the extent of his proportionate pecuniary interest therein. The mailing address of the beneficial owner is c/o Polaris Partners, 1000 Winter Street, Suite 3350, Waltham, MA 02451.

- (3) Includes (a) 2,775,788 shares of common stock held by Flagship Ventures Fund 2004, L.P. and (b) 1,260,984 shares of common stock held by Flagship Ventures Fund IV, L.P., or, collectively, Flagship. The general partner of Flagship is Flagship Ventures General Partner LLC, or Flagship LLC. Harry W. Wilcox, one of our directors, is a Member of Flagship LLC. As a result, each of Flagship LLC and Mr. Wilcox may be deemed to possess voting and investment control over, and may be deemed to have indirect beneficial ownership with respect to, all shares held by Flagship. Neither Flagship LLC nor Mr. Wilcox owns directly any of the shares. Each of Flagship LLC and Mr. Wilcox disclaims beneficial ownership of the shares held by Flagship except to the extent of their pecuniary interest therein. The mailing address of the beneficial owner is One Memorial Drive, 7th Floor, Cambridge, MA 02142.
- (4) The general partner of Aisling Capital III, L.P., or AC III, is Aisling Capital Partners III, L.P., or ACP III. The investment manager of ACP III is Aisling Capital, LLC, or Aisling Capital. Joshua Bilenker, M.D., a member of our board of directors, is a managing member of Aisling Capital. Each of Aisling Capital, ACP III and Dr. Bilenker may be deemed to beneficially own the shares held by AC III. Each of Aisling Capital, ACP III and Dr. Bilenker disclaims any beneficial ownership of the shares owned by AC III except to the extent of their pecuniary interest in such entity. The mailing address of the beneficial owner is 888 Seventh Avenue, 29<sup>th</sup> Floor, New York, NY 10016.
- (5) Includes (a) 2,279,720 shares of common stock held by Flybridge Capital Partners II, L.P., or FCP II, and (b) 90,309 shares of common stock held by Flybridge Capital Partners I, L.P., or FCP I, collectively the Flybridge Entities. The general partner of the Flybridge Entities is Flybridge Capital Partners GP I, LLC and Flybridge Capital Partners GP II, LLC (collectively the "Flybridge General Partners"). David Aronoff, one of our directors, is a managing member of the Flybridge General Partners. As a result, each of the Flybridge General Partners and Mr. Aronoff may be deemed to possess voting and investment control over, and may be deemed to have indirect beneficial ownership with respect to, all shares held by the Flybridge Entities. Each of Flybridge General Partners and Mr. Aronoff disclaims any beneficial ownership of the shares held by the Flybridge Entities except to the extent of their pecuniary interest therein. The mailing address of the beneficial owner is c/o Flybridge Capital Partners, 500 Boylston Street, 18th Floor, Boston, MA 02116.
- (6) Stacy A. Feld, one of our directors, is a partner of Physic Ventures. As a result, Ms. Feld may be deemed to beneficially own the shares held by Physic Ventures. Ms. Feld disclaims any beneficial ownership of the shares owned by Physic Ventures except to the extent of her

pecuniary interest in such entity. The mailing address of the beneficial owner is c/o Physic Ventures, 548 Market Street #70998, San Francisco, CA 94104.

- (7) Consists of (a) 263,098 shares of common stock and (b) 561,993 shares of common stock which Mr. McDonough has the right to acquire pursuant to outstanding stock options which are or will be immediately exercisable within 60 days of June 30, 2014.
- (8) Consists of 94,083 shares of common stock which Mr. Jones has the right to acquire pursuant to outstanding stock options which are or will be immediately exercisable within 60 days of June 30, 2014.
- (9) Consists of 70,562 shares of common stock which Ms. Kalil has the right to acquire pursuant to outstanding stock options which are or will be immediately exercisable within 60 days of June 30, 2014.
- (10) Consists of (a) 304,332 shares of common stock and (b) 130,555 shares of common stock which Dr. Cima has the right to acquire pursuant to outstanding stock options which are or will be immediately exercisable within 60 days of June 30, 2014.
- (11) Consists of (a) 300,000 shares of common stock and (b) 130,555 shares of common stock which Dr. Langer has the right to acquire pursuant to outstanding stock options which are or will be immediately exercisable within 60 days of June 30, 2014.
- (12) Consists of 134,895 shares of common stock which Mr. Lapidus has the right to acquire pursuant to outstanding stock options which are or will be immediately exercisable within 60 days of June 30, 2014.
- (13) Consists of (a) 20,748,774 shares of common stock and (b) 1,295,404 shares of common stock which our directors and executive officers as a group have the right to acquire pursuant to outstanding stock options which are or will be immediately exercisable within 60 days of June 30, 2014.

## DESCRIPTION OF CAPITAL STOCK

### General

The following description summarizes some of the terms of our restated certificate of incorporation and amended and restated bylaws that will become effective upon the closing of this offering, our outstanding warrants, the investors' rights agreement and of the General Corporation Law of the State of Delaware. Because it is only a summary, it does not contain all the information that may be important to you. For a complete description, you should refer to our restated certificate of incorporation, amended and restated bylaws, warrants and investors' rights agreement, copies of which have been or will be filed as exhibits to the registration statement of which this prospectus is a part, as well as the relevant provisions of the General Corporation Law of the State of Delaware. The description of our common stock and preferred stock reflects changes to our capital structure that will occur upon the closing of this offering.

Following the closing 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.

As of June 30, 2014, we had issued and outstanding:

- 2,471,113 shares of our common stock held of record by 31 stockholders;
- 282,849 shares of our series A-1 preferred stock that are convertible into 282,849 shares of our common stock as of such date;
- 1,703,959 shares of our series A-2 preferred stock that are convertible into 1,703,959 shares of our common stock as of such date;
- 3,249,877 shares of our series B preferred stock that are convertible into 3,249,877 shares of our common stock as of such date;
- 4,055,125 shares of our series C preferred stock that are convertible into 4,055,125 shares of our common stock as of such date;
- 5,054,945 shares of our series D preferred stock that are convertible into 5,054,945 shares of our common stock as of such date; and
- 6,930,967 shares of our series E preferred stock that are convertible into 6,930,967 shares of our common stock as of such date.

In connection with this offering, all of the outstanding shares of our preferred stock will automatically convert into an aggregate of 21,277,722 shares of our common stock.

### Common Stock

Holders of our common stock are entitled to one vote for each share held on all matters submitted to a vote of stockholders and do not have cumulative voting rights. An election of directors by our stockholders shall be determined by a plurality of the votes cast by the stockholders entitled to vote on the election. Subject to the supermajority votes for some matters, other matters shall be decided by the affirmative vote of our stockholders having a majority in voting power of the votes cast by the stockholders present or represented and voting on such matter. Our restated certificate of incorporation and amended and restated bylaws also will provide that our directors may be removed only for cause and only by the affirmative vote of the holders of at least two-thirds in voting power of the outstanding shares of capital stock entitled to vote thereon. In addition, the affirmative vote of the holders of at least two-thirds in voting power of the outstanding shares of capital stock entitled to vote thereon is required to amend or repeal, or to

adopt any provision inconsistent with, several of the provisions of our restated certificate of incorporation. See below under "— Anti-Takeover Effects of Delaware Law and Our Certificate of Incorporation and Bylaws — Amendment of Charter Provisions". Holders of common stock are entitled to receive proportionately any dividends as may be declared by our board of directors, subject to any preferential dividend rights of any series of preferred stock that we may designate and issue in the future.

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

#### **Preferred Stock**

Under the terms of our restated certificate of incorporation that will become effective upon the closing of this offering, our board of directors is authorized to direct us to issue shares of preferred stock in one or more series without stockholder approval. Our board of directors has the discretion to determine the rights, preferences, privileges and restrictions, including voting rights, dividend rights, conversion rights, redemption privileges and liquidation preferences, of each series of preferred stock.

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

#### **Stock Options**

As of June 30, 2014, we had outstanding stock options to purchase an aggregate of 4,008,347 shares of our common stock under our 2006 Plan.

#### **Warrants**

In connection with the Loan and Security Agreement dated August 20, 2007, as amended on June 26, 2009 and June 25, 2012, with Silicon Valley Bank, or SVB, we issued warrants to SVB that are exercisable for 13,769 shares of series A-2 preferred stock, 9,036 shares of our series B preferred stock and 19,780 shares of series D preferred stock at an exercise price per share of \$2.9050, \$3.3232 and \$4.55, respectively. If unexercised, these warrants will expire upon the closing of this offering.

In September 2008, we issued warrants to In-Q-Tel, Inc. that are immediately exercisable for 174,530 and 3,612 shares of our series B preferred stock, at an exercise price per share of \$3.3232 and \$4.65, respectively. If unexercised, these warrants will expire upon the closing of this offering.

In May 2011, in connection with a Security Agreement dated May 9, 2011 with Massachusetts Development Finance Agency, or MDF, we issued a warrant to MDF that is immediately exercisable for 30,000 shares of our series C preferred stock, at an exercise price per share of \$3.6608. Immediately prior to the closing of this offering, this warrant will automatically convert into shares of series C preferred stock pursuant to a cashless net exercise provision, as described below.

Each of the above warrants has a net exercise provision under which the holder may, in lieu of payment of the exercise price in cash, surrender the warrant and receive a net amount of shares of the applicable series of our preferred stock based on the fair market value of such preferred stock at the time of the net exercise of the warrant after deduction of the aggregate exercise price. These warrants also contain provisions for the adjustment of the exercise price and the aggregate number of shares issuable upon the exercise of the warrants in the event of stock dividends, stock splits, reorganizations and reclassifications and consolidations.

#### **Registration Rights**

As of June 30, 2014, upon the closing of this offering, holders of \_\_\_\_\_ shares of our common stock, including shares issuable upon the exercise of warrants, or their transferees, will be entitled to the following rights with respect to the registration of such shares for public resale under the Securities Act, pursuant to a fourth amended and restated investors' rights agreement by and among us and certain of our stockholders, until such shares can otherwise be sold without restriction under Rule 144, or until the rights otherwise terminate pursuant to the terms of the investors' rights agreement. The registration of shares of common stock as a result of the following rights being exercised would enable holders to trade these shares without restriction under the Securities Act when the applicable registration statement is declared effective.

#### ***Demand Registration Rights***

If at any time beginning 180 days after the closing date of this offering the holders of at least 30% of the registrable securities request in writing that we effect a registration of an aggregate amount of at least \$10,000,000 with respect to all or part of such registrable securities then outstanding, we may be required to register their shares. We are obligated to effect at most two registrations in response to these demand registration rights. If the holders requesting registration intend to distribute their shares by means of an underwriting, the managing underwriter of such offering will have the right to limit the numbers of shares to be underwritten for reasons related to the marketing of the shares.

#### ***Piggyback Registration Rights***

If at any time after this offering we propose to register any shares of our common stock under the Securities Act, subject to certain exceptions, the holders of registrable securities will be entitled to notice of the registration and to include their shares of registrable securities in the registration. If our proposed registration involves an underwriting, the managing underwriter of such offering will have the right to limit the number of shares to be underwritten for reasons related to the marketing of the shares.

#### ***Form S-3 Registration Rights***

If, at any time after we become entitled under the Securities Act to register our shares on a registration statement on Form S-3, the holders of registrable securities request in writing that we effect a registration with respect to registrable securities at an aggregate price to the public in the offering of at least \$3,000,000, we will be required to effect such registration; provided, however,



that we will not be required to effect such a registration if, within a given six-month period, we have already effected one registration on Form S-3 for the holders of registrable securities.

### **Expenses**

Ordinarily, other than underwriting discounts and commissions, we will be required to pay all expenses incurred by us related to any registration effected pursuant to the exercise of these registration rights. These expenses may include all registration and filing fees, printing expenses, fees and disbursements of our counsel, reasonable fees and disbursements of a counsel for the selling securityholders and blue sky fees and expenses.

### **Termination of Registration Rights**

The registration rights terminate upon the earlier of five years after the effective date of the registration statement of which this prospectus is a part, or, with respect to the registration rights of an individual holder, when the holder can sell all of such holder's registrable securities in a 90-day period without restriction under Rule 144 of the Securities Act.

### **Waiver of Registration Rights**

Holders of a majority of the shares of common stock entitled to registration rights under the fourth amended and restated investors rights agreement have waived the right of all of such holders to exercise such registration rights for a period of not less than 180 days after the date of this prospectus.

### **Anti-Takeover Effects of Delaware Law and Our Certificate of Incorporation and Bylaws**

Some provisions of Delaware law, our restated certificate of incorporation and our amended and restated bylaws could make the following transactions more difficult: an acquisition of us by means of a tender offer; an acquisition of us by means of a proxy contest or otherwise; or the removal of our incumbent officers and directors. It is possible that these provisions could make it more difficult to accomplish or could deter transactions that stockholders may otherwise consider to be in their best interest or in our best interests, including transactions which provide for payment of a premium over the market price for our shares.

These provisions, summarized below, are intended to discourage coercive takeover practices and inadequate takeover bids. These provisions are also designed to encourage persons seeking to acquire control of us to first negotiate with our board of directors. We believe that the benefits of the increased protection of our potential ability to negotiate with the proponent of an unfriendly or unsolicited proposal to acquire or restructure us outweigh the disadvantages of discouraging these proposals because negotiation of these proposals could result in an improvement of their terms.

### **Undesignated Preferred Stock**

The ability of our board of directors, without action by the stockholders, to issue up to \_\_\_\_\_ shares of undesignated preferred stock with voting or other rights or preferences as designated by our board of directors could impede the success of any attempt to change control of us. These and other provisions may have the effect of deferring hostile takeovers or delaying changes in control or management of our company.

**Stockholder Meetings**

Our amended and restated bylaws provide that a special meeting of stockholders may be called only by our chief executive officer or president (in the absence of a chief executive officer), or by a resolution adopted by a majority of our board of directors.

**Requirements for Advance Notification of Stockholder Nominations and Proposals**

Our amended and restated bylaws establish advance notice procedures with respect to stockholder proposals to be brought before a stockholder meeting and the nomination of candidates for election as directors, other than nominations made by or at the direction of the board of directors or a committee of the board of directors.

**Elimination of Stockholder Action by Written Consent**

Our restated certificate of incorporation eliminates the right of stockholders to act by written consent without a meeting.

**Staggered Board**

Our board of directors is divided into three classes. The directors in each class will serve for a three-year term, one class being elected each year by our stockholders. For more information on the classified board, see "Management — Board Composition and Election of Directors." This system of electing and removing directors may tend to discourage a third party from making a tender offer or otherwise attempting to obtain control of us, because it generally makes it more difficult for stockholders to replace a majority of the directors.

**Removal of Directors**

Our restated certificate of incorporation provides that no member of our board of directors may be removed from office by our stockholders except for cause and, in addition to any other vote required by law, upon the approval of the holders of at least two-thirds in voting power of the outstanding shares of stock entitled to vote in the election of directors.

**Stockholders Not Entitled to Cumulative Voting**

Our restated certificate of incorporation does not permit stockholders to cumulate their votes in the election of directors. Accordingly, the holders of a majority of the outstanding shares of our common stock entitled to vote in any election of directors can elect all of the directors standing for election, if they choose, other than any directors that holders of our preferred stock may be entitled to elect.

**Delaware Anti-Takeover Statute**

We are subject to Section 203 of the General Corporation Law of the State of Delaware, which prohibits persons deemed to be "interested stockholders" from engaging in a "business combination" with a publicly held Delaware corporation for three years following the date these persons become interested stockholders unless the business combination is, or the transaction in which the person became an interested stockholder was, approved in a prescribed manner or another prescribed exception applies. Generally, an "interested stockholder" is a person who, together with affiliates and associates, owns, or within three years prior to the determination of interested stockholder status did own, 15% or more of a corporation's voting stock. Generally, a "business combination" includes a merger, asset or stock sale, or other transaction resulting in a

financial benefit to the interested stockholder. The existence of this provision may have an anti-takeover effect with respect to transactions not approved in advance by the board of directors.

#### **Choice of Forum**

Our restated certificate of incorporation provides that, unless we consent in writing to the selection of an alternative form, the Court of Chancery of the State of Delaware will be the sole and exclusive forum for: (1) any derivative action or proceeding brought on our behalf; (2) any action asserting a claim of breach of a fiduciary duty or other wrongdoing by any of our directors, officers, employees or agents to us or our stockholders; (3) any action asserting a claim against us arising pursuant to any provision of the General Corporation Law of the State of Delaware or our certificate of incorporation or bylaws; (4) any action to interpret, apply, enforce or determine the validity of our certificate of incorporation or bylaws; or (5) any action asserting a claim governed by the internal affairs doctrine. Our restated certificate of incorporation also provides that any person or entity purchasing or otherwise acquiring any interest in shares of our capital stock will be deemed to have notice of and to have consented to this choice of forum provision. It is possible that a court of law could rule that the choice of forum provision contained in our restated certificate of incorporation is inapplicable or unenforceable if it is challenged in a proceeding or otherwise.

#### **Amendment of Charter Provisions**

The amendment of any of the above provisions, except for the provision making it possible for our board of directors to issue preferred stock and the provision prohibiting cumulative voting, would require approval by holders of at least two-thirds in voting power of the outstanding shares of stock entitled to vote thereon.

The provisions of Delaware law, our restated certificate of incorporation and our amended and restated bylaws could have the effect of discouraging others from attempting hostile takeovers and, as a consequence, they may also inhibit temporary fluctuations in the market price of our common stock that often result from actual or rumored hostile takeover attempts. These provisions may also have the effect of preventing changes in the composition of our board and management. It is possible that these provisions could make it more difficult to accomplish transactions that stockholders may otherwise deem to be in their best interests.

#### **Transfer Agent and Registrar**

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

#### **Listing**

We have applied to have our common stock listed on The NASDAQ Global Market under the symbol "TTOO".

## SHARES ELIGIBLE FOR FUTURE SALE

Prior to this offering, there has been no public market for our common stock. Future sales of substantial amounts of common stock in the public market, or the perception that such sales may occur, could adversely affect the market price of our common stock.

Upon the closing of this offering, we will have outstanding an aggregate of \_\_\_\_\_ shares of common stock, assuming the issuance of \_\_\_\_\_ shares of common stock offered by us in this offering, the automatic conversion of all outstanding shares of our preferred stock into 21,277,722 shares of our common stock, the issuance of \_\_\_\_\_ shares of common stock upon the net exercise of all outstanding warrants, and no exercise of options after March 31, 2014. Of these shares, all shares sold in this offering will be freely tradable without restriction or further registration under the Securities Act, except for any shares purchased by our "affiliates," as that term is defined in Rule 144 under the Securities Act, whose sales would be subject to the Rule 144 resale restrictions described below, other than the holding period requirement.

The remaining \_\_\_\_\_ shares of common stock will be "restricted securities," as that term is defined in Rule 144 under the Securities Act. These restricted securities are eligible for public sale only if they are registered under the Securities Act or if they qualify for an exemption from registration under Rules 144 or 701 under the Securities Act, which are summarized below. We expect that substantially all of these shares will be subject to the 180-day lock-up period under the lock-up agreements described below. Upon expiration of the lock-up period, we estimate that approximately \_\_\_\_\_ shares will be available for sale in the public market, subject in some cases to applicable volume limitations under Rule 144.

In addition, of the 4,008,347 shares of our common stock that were subject to stock options outstanding as of June 30, 2014, options to purchase 1,784,690 shares of common stock were vested as of June 30, 2014 and, upon exercise, these shares will be eligible for sale subject to the lock-up agreements described below and Rules 144 and 701 under the Securities Act.

### Lock-Up Agreements

We and each of our directors and executive officers and holders of substantially all of our outstanding capital stock, have agreed that, without the prior written consent of Goldman, Sachs & Co. and Morgan Stanley & Co. LLC, on behalf of the underwriters, we and they will not, subject to limited exceptions described below, during the period ending 180 days after the date of this prospectus:

- offer, sell, contract to sell, pledge, grant any option to purchase, make any short sale or otherwise dispose of, or publicly disclose an intention to take any such actions with respect to, any shares of our common stock, or any options or warrants to purchase any shares of our common stock, or any securities convertible into, exchangeable for or that represent the right to receive shares of our common stock, whether now owned or hereinafter acquired, owned directly or indirectly; or
- request, make any demand for or exercise any right with respect to, the registration of any of our common stock or any security convertible into or exercisable or exchangeable for our common stock;

whether any transaction described above is to be settled by delivery of our common stock or such other securities, in cash or otherwise.

In the case of our officers, directors and stockholders, these lock-up restrictions are subject to certain exceptions, including transfers (i) made as bona fide gifts; (ii) for the primary purpose of satisfying exercise price and/or tax withholding obligations upon the vesting or exercise of an option

or other award granted under a stock incentive plan or stock purchase plan of the Company; (iii) acquired in open market transactions; (iv) as part of a distribution, transfer or disposition without consideration to a holder's limited or general partners; and (v) in connection with the establishment of a trading plan pursuant to 10b5-1 under the Exchange Act.

Upon the expiration of the lock-up period, substantially all of the shares subject to such lock-up restrictions will become eligible for sale, subject to the limitations discussed above.

## **Rule 144**

### ***Affiliate Resales of Restricted Securities***

In general, beginning 90 days after the effective date of the registration statement of which this prospectus is a part, a person who is an affiliate of ours, or who was an affiliate at any time during the 90 days before a sale, who has beneficially owned shares of our common stock for at least six months would be entitled to sell in "broker's transactions" or certain "riskless principal transactions" or to market makers, a number of shares within any three-month period that does not exceed the greater of:

- 1% of the number of shares of our common stock then outstanding, which will equal approximately \_\_\_\_\_ shares immediately after this offering; or
- the average weekly trading volume in 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 such sale.

Affiliate resales under Rule 144 are also subject to the availability of current public information about us. In addition, if the number of shares being sold under Rule 144 by an affiliate during any three-month period exceeds 5,000 shares or has an aggregate sale price in excess of \$50,000, the seller must file a notice on Form 144 with the Securities and Exchange Commission and NASDAQ concurrently with either the placing of a sale order with the broker or the execution directly with a market maker.

### ***Non-Affiliate Resales of Restricted Securities***

In general, beginning 90 days after the effective date of the registration statement of which this prospectus is a part, a person who is not an affiliate of ours at the time of sale, and has not been an affiliate at any time during the three months preceding a sale, and who has beneficially owned shares of our common stock for at least six months but less than a year, is entitled to sell such shares subject only to the availability of current public information about us. If such person has held our shares for at least one year, such person can resell under Rule 144(b)(1) without regard to any Rule 144 restrictions, including the 90-day public company requirement and the current public information requirement.

Non-affiliate resales are not subject to the manner of sale, volume limitation or notice filing provisions of Rule 144.

## **Rule 701**

In general, under Rule 701, any of an issuer's employees, directors, officers, consultants or advisors who purchases shares from the issuer in connection with a compensatory stock or option plan or other written agreement before the effective date of a registration statement under the Securities Act is entitled to sell such shares 90 days after such effective date in reliance on Rule 144. An affiliate of the issuer can resell shares in reliance on Rule 144 without having to comply with the holding period requirement, and non-affiliates of the issuer can resell shares in

reliance on Rule 144 without having to comply with the current public information and holding period requirements.

The Securities and Exchange Commission has indicated that Rule 701 will apply to typical stock options granted by an issuer before it becomes subject to the reporting requirements of the Exchange Act, along with the shares acquired upon exercise of such options, including exercises after an issuer becomes subject to the reporting requirements of the Exchange Act.

### **Equity Plans**

We intend to file one or more registration statements on Form S-8 under the Securities Act to register all shares of common stock subject to outstanding stock options and common stock issued or issuable under our stock plans. We expect to file the registration statement covering shares offered pursuant to our stock plans shortly after the date of this prospectus, permitting the resale of such shares by nonaffiliates in the public market without restriction under the Securities Act and the sale by affiliates in the public market, subject to compliance with the resale provisions of Rule 144.

### **Registration Rights**

Upon the closing of this offering, the holders of \_\_\_\_\_ shares of common stock, which includes all of the shares of common stock issuable upon the automatic conversion of our preferred stock upon the closing of this offering, or their transferees will be entitled to various rights with respect to the registration of these 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 statement, except for shares purchased by affiliates. See "Description of Capital Stock — Registration Rights" for additional information. Holders of a majority of the shares of common stock entitled to such registration rights have waived the right of all of such holders to exercise such registration rights for a period of not less than 180 days after the date of this prospectus. Shares covered by a registration statement will be eligible for sale in the public market upon the expiration or release from the terms of the lock-up agreement.

## MATERIAL U.S. FEDERAL INCOME TAX CONSEQUENCES TO NON-U.S. HOLDERS

The following discussion is a summary of the material U.S. federal income tax consequences to non-U.S. holders (as defined below) of the purchase, ownership and disposition of our common stock issued pursuant to this offering, but does not purport to be a complete analysis of all potential tax effects. The effects of other U.S. federal tax laws, such as estate and gift tax laws, and any applicable state, local or foreign tax laws are not discussed. This discussion is based on the United States Internal Revenue Code of 1986, as amended, or the Code, Treasury Regulations promulgated thereunder, judicial decisions, and published rulings and administrative pronouncements of the U.S. Internal Revenue Service, or the IRS, in effect as of the date of this offering. These authorities may change or be subject to differing interpretations. Any such change may be applied retroactively in a manner that could adversely affect a non-U.S. holder of our common stock. We have not sought and will not seek any rulings from the IRS regarding the matters discussed below. There can be no assurance the IRS or a court will not take a contrary position regarding the tax consequences of the purchase, ownership and disposition of our common stock.

This discussion is limited to non-U.S. holders that hold our common stock as a "capital asset" within the meaning of Section 1221 of the Code (generally, property held for investment). This discussion does not address all U.S. federal income tax consequences relevant to a non-U.S. holder's particular circumstances, including the impact of the unearned income Medicare contribution tax. In addition, it does not address consequences relevant to non-U.S. holders subject to particular rules, including, without limitation:

- U.S. expatriates and certain former citizens or long-term residents of the United States;
- persons subject to the alternative minimum tax;
- persons holding our common stock as part of a hedge, straddle or other risk reduction strategy or as part of a conversion transaction or other integrated investment;
- banks, insurance companies, and other financial institutions;
- real estate investment trusts or regulated investment companies;
- brokers, dealers or traders in securities;
- "controlled foreign corporations," "passive foreign investment companies," and corporations that accumulate earnings to avoid U.S. federal income tax;
- S corporations, partnerships or other entities or arrangements treated as partnerships for U.S. federal income tax purposes;
- tax-exempt organizations or governmental organizations;
- persons who hold or receive our common stock pursuant to the exercise of any employee stock option or otherwise as compensation;
- persons deemed to sell our common stock under the constructive sale provisions of the Code; and
- tax-qualified retirement plans.

If a partnership (or other entity treated as a partnership for U.S. federal income tax purposes) holds our common stock, the tax treatment of a partner in the partnership will depend on the status of the partner, the activities of the partnership and certain determinations made at the partner level. Accordingly, partnerships holding our common stock and the partners in such partnerships should consult their tax advisors regarding the U.S. federal income tax consequences to them.

**THIS DISCUSSION IS FOR INFORMATION PURPOSES ONLY AND IS NOT INTENDED AS TAX ADVICE. INVESTORS SHOULD CONSULT THEIR TAX ADVISORS WITH RESPECT TO THE APPLICATION OF THE U.S. FEDERAL INCOME TAX LAWS TO THEIR PARTICULAR SITUATIONS AS WELL AS ANY TAX CONSEQUENCES OF THE PURCHASE, OWNERSHIP AND**

**DISPOSITION OF OUR COMMON STOCK ARISING UNDER THE U.S. FEDERAL ESTATE OR GIFT TAX LAWS OR UNDER THE LAWS OF ANY STATE, LOCAL OR NON-U.S. TAXING JURISDICTION OR UNDER ANY APPLICABLE INCOME TAX TREATY.**

**Definition of a Non-U.S. Holder**

For purposes of this discussion, a "non-U.S. holder" is any beneficial owner of our common stock that is neither a "U.S. person" nor a partnership for United States federal income tax purposes. A U.S. person is any of the following:

- an individual who is a citizen or resident of the United States;
- a corporation (or other entity taxable as a corporation for U.S. federal income tax purposes) created or organized under the laws of the United States, any state thereof, or the District of Columbia;
- an estate, the income of which is subject to U.S. federal income tax regardless of its source; or
- a trust that (1) is subject to the primary supervision of a U.S. court and the control of one or more United States persons (within the meaning of Section 7701(a)(30) of the Code), or (2) has made a valid election under applicable Treasury Regulations to continue to be treated as a United States person.

**Distributions**

As described in the section entitled "Dividend Policy," we do not anticipate declaring or paying dividends to holders of our common stock in the foreseeable future. However, if we do make distributions on our common stock, such distributions of cash or property on our common stock will constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. Amounts not treated as dividends for U.S. federal income tax purposes will constitute a return of capital and first be applied against and reduce a non-U.S. holder's adjusted tax basis in its common stock, but not below zero. Any excess will be treated as capital gain and will be treated as described below in the section relating to the sale or disposition of our common stock.

Subject to the discussion below on backup withholding and foreign accounts, dividends paid to a non-U.S. holder of our common stock that are not effectively connected with the non-U.S. holder's conduct of a trade or business within the United States will be subject to U.S. federal withholding tax at a rate of 30% of the gross amount of the dividends (or such lower rate specified by an applicable income tax treaty).

Non-U.S. holders will be entitled to a reduction in or an exemption from withholding on dividends as a result of either (a) an applicable income tax treaty or (b) the non-U.S. holder holding our common stock in connection with the conduct of a trade or business within the United States and dividends being paid in connection with that trade or business. To claim such a reduction in or exemption from withholding, the non-U.S. holder must provide the applicable withholding agent with a properly executed (a) IRS Form W-8BEN or W-8BEN-E claiming an exemption from or reduction of the withholding tax under the benefit of an income tax treaty between the United States and the country in which the non-U.S. holder resides or is established, or (b) IRS Form W-8ECI stating that the dividends are not subject to withholding tax because they are effectively connected with the conduct by the non-U.S. holder of a trade or business within the United States, as may be applicable. These certifications must be provided to the applicable withholding agent prior to the payment of dividends and must be updated periodically. Non-U.S. holders that do not timely provide the applicable withholding agent with the required certification, but that qualify for a reduced rate under an applicable income tax treaty, may obtain a refund of any excess amounts withheld by timely filing an appropriate claim for refund with the IRS.



Subject to the discussions below on backup withholding and foreign accounts, if dividends paid to a non-U.S. holder are effectively connected with the non-U.S. holder's conduct of a trade or business within the United States (and, if required by an applicable income tax treaty, the non-U.S. holder maintains a permanent establishment in the United States to which such dividends are attributable), then, although exempt from U.S. federal withholding tax (provided the non-U.S. holder provides appropriate certification, as described above), the non-U.S. holder will be subject to U.S. federal income tax on such dividends on a net income basis at the regular graduated U.S. federal income tax rates. In addition, a non-U.S. holder that is a corporation may be subject to a branch profits tax at a rate of 30% (or such lower rate specified by an applicable income tax treaty) on its effectively connected earnings and profits for the taxable year that are attributable to such dividends, as adjusted for certain items. Non-U.S. holders should consult their tax advisors regarding their entitlement to benefits under any applicable income tax treaty.

#### **Sale or Other Taxable Disposition**

Subject to the discussions below on backup withholding and foreign accounts, a non-U.S. holder will not be subject to 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 the non-U.S. holder's conduct of a trade or business within the United States (and, if required by an applicable income tax treaty, the non-U.S. holder maintains a permanent establishment in the United States to which such gain is attributable);
- the non-U.S. holder is a nonresident alien individual present in the United States for 183 days or more during the taxable year of the disposition and certain other requirements are met; or
- our common stock constitutes a U.S. real property interest, or USRPI, by reason of our status as a U.S. real property holding corporation, or a USRPHC, for U.S. federal income tax purposes.

Gain described in the first bullet point above will generally be subject to U.S. federal income tax on a net income basis at the regular graduated U.S. federal income tax rates. A non-U.S. holder that is a foreign corporation also may be subject to a branch profits tax at a rate of 30% (or such lower rate specified by an applicable income tax treaty) of a portion of its effectively connected earnings and profits for the taxable year, as adjusted for certain items.

A non-U.S. holder described in the second bullet point above will be subject to U.S. federal income tax at a rate of 30% (or such lower rate specified by an applicable income tax treaty) on any gain derived from the disposition, which may be offset by certain U.S. source capital losses of the non-U.S. holder (even though the individual is not considered a resident of the United States) provided the non-U.S. holder has timely filed U.S. federal income tax returns with respect to such losses.

With respect to the third bullet point above, we believe we are not currently and do not anticipate becoming a USRPHC. Because the determination of whether we are a USRPHC depends on the fair market value of our USRPIs relative to the fair market value of our other business assets and our non-U.S. real property interests, however, there can be no assurance we are not a USRPHC or will not become one in the future. Even if we are or were to become a USRPHC, gain arising from the sale or other taxable disposition by a non-U.S. holder of our common stock will not be subject to U.S. federal income tax if such class of stock is "regularly traded," as defined by applicable Treasury Regulations, on an established securities market, and such non-U.S. holder owned, actually or constructively, 5% or less of such class of our stock throughout the shorter of the five-year period ending on the date of the sale or other disposition or the non-U.S. holder's holding period for such stock.

Non-U.S. holders should consult their tax advisors regarding potentially applicable income tax treaties that may provide for different rules.

### **Information Reporting and Backup Withholding**

Subject to the discussion below on foreign accounts, a non-U.S. holder will not be subject to backup withholding with respect to payments of dividends on our common stock we make to the non-U.S. holder, provided the applicable withholding agent does not have actual knowledge or reason to know such holder is a United States person and the holder certifies its non-U.S. status, such as by providing a valid IRS Form W-8BEN, W-8BEN-E or W-8ECI, or other applicable certification. However, information returns will be filed with the IRS in connection with any dividends on our common stock paid to the non-U.S. holder, regardless of whether any tax was actually withheld. Copies of these information returns may also be made available under the provisions of a specific treaty or agreement to the tax authorities of the country in which the non-U.S. holder resides or is established.

Information reporting and backup withholding may apply to the proceeds of a sale of our common stock within the United States, and information reporting may (although backup withholding generally will not) apply to the proceeds of a sale of our common stock outside the United States conducted through certain U.S.-related financial intermediaries, in each case, unless the beneficial owner certifies under penalty of perjury that it is a non-U.S. holder on IRS Form W-8BEN, W-8BEN-E or other applicable form (and the payor does not have actual knowledge or reason to know that the beneficial owner is a U.S. person) or such owner otherwise establishes an exemption.

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules may be allowed as a refund or a credit against a non-U.S. holder's U.S. federal income tax liability, provided the required information is timely furnished to the IRS.

### **Additional Withholding Tax on Payments Made to Foreign Accounts**

Withholding taxes may be imposed under the Foreign Account Tax Compliance Act, or FATCA, on certain types of payments made to non-U.S. financial institutions and certain other non-U.S. entities. Specifically, a 30% withholding tax may be imposed on dividends on, or gross proceeds from the sale or other disposition of, our common stock paid to a "foreign financial institution" or a "non-financial foreign entity" (each as defined in the Code), unless (1) the foreign financial institution undertakes certain diligence and reporting obligations, (2) the non-financial foreign entity either certifies it does not have any "substantial United States owners" (as defined in the Code) or furnishes identifying information regarding each substantial United States owner, or (3) the foreign financial institution or non-financial foreign entity otherwise qualifies for an exemption from these rules. If the payee is a foreign financial institution and is subject to the diligence and reporting requirements in (1) above, it must enter into an agreement with the U.S. Department of the Treasury requiring, among other things, that it undertake to identify accounts held by certain "specified United States persons" or "United States-owned foreign entities" (each as defined in the Code), annually report certain information about such accounts, and withhold 30% on payments to non-compliant foreign financial institutions and certain other account holders.

The withholding provisions described above will generally apply to payments of dividends made on or after July 1, 2014 and to payments of gross proceeds from a sale or other disposition of stock on or after January 1, 2017. Because we may not know the extent to which a distribution is a dividend for U.S. federal income tax purposes at the time it is made, for purposes of these withholding rules we may treat the entire distribution as a dividend. Prospective investors should consult their tax advisors regarding these withholding provisions.

**UNDERWRITING (CONFLICT OF INTEREST)**

We and the underwriters named below will enter into an underwriting agreement with respect to the shares being offered. Subject to certain conditions, each underwriter will severally agree to purchase the number of shares indicated in the following table. Goldman, Sachs & Co. and Morgan Stanley & Co. LLC are acting as representatives of the underwriters.

<b>Underwriters</b>	<b>Number of Shares</b>
Goldman, Sachs & Co.	
Morgan Stanley & Co. LLC	
Leerink Partners LLC	
Janney Montgomery Scott LLC	
<b>Total</b>	

The underwriters are committed to take and pay for all of the shares being offered, if any are taken, other than the shares covered by the option described below unless and until this option is exercised.

If the underwriters sell more shares than the total number set forth in the table above, the underwriters have an option to purchase up to an additional \_\_\_\_\_ shares from us. They may exercise that option for 30 days. If any shares are purchased pursuant to this option, the underwriters will severally purchase shares in approximately the same proportion as set forth in the table above.

The following table shows the per share and total underwriting discounts to be paid to the underwriters by us. Such amounts are shown assuming both no exercise and full exercise of the underwriters' option to purchase \_\_\_\_\_ additional shares.

<b>Per Share</b>	<b>No Exercise</b>	<b>Full Exercise</b>
Total	\$ _____	\$ _____

Shares sold by the underwriters to the public will initially be offered at the initial public offering price set forth on the cover of this prospectus. Any shares sold by the underwriters to securities dealers may be sold at a discount of up to \$ \_\_\_\_\_ per share from the initial public offering price. If all the shares are not sold at the initial public offering price, the representative may change the offering price and the other selling terms. The offering of the shares by the underwriters is subject to receipt and acceptance and subject to the underwriters' right to reject any order in whole or in part.

We and our officers, directors, and holders of substantially all of our common stock have agreed with the underwriters, subject to certain exceptions, not to dispose of or hedge any of their common stock or securities convertible into or exchangeable for shares of common stock during the period from the date of this prospectus continuing through the date 180 days after the date of this prospectus, except with the prior written consent of the representative. See "Shares Eligible for Future Sale — Lock-Up Agreements".

Goldman, Sachs & Co. has agreed that for a period of 180 days immediately following the date of this prospectus, 4,331,858 shares of our series E preferred stock, together with any shares of our common stock issuable upon conversion of such shares, shall be subject to the lock-up restrictions set forth in FINRA Rule 5110(g)(1) (which provides that in any public equity offering, any securities of the issuer acquired by an underwriter or related person during the 180 days prior to the required filing date of such offering shall not be sold during the offering or sold, transferred,

assigned, pledged, or hypothecated, or be the subject of any hedging, short sale, derivative, put, or call transaction that would result in the effective economic disposition of the securities by any person for a period of 180 days immediately following the date of effectiveness or commencement of sales of the public offering, except as provided in FINRA Rule 5110(g)(2)).

Prior to this offering, there has been no public market for the shares. The initial public offering price will be negotiated among us and the representatives. Among the factors to be considered in determining the initial public offering price of the shares, in addition to prevailing market conditions, will be our historical performance, estimates of our business potential and earnings prospects, an assessment of our management and the consideration of the above factors in relation to market valuation of companies in related businesses.

We have applied to list the common stock on The NASDAQ Global Market under the symbol "TTOO".

In connection with this offering, the underwriters may purchase and sell shares of common stock in the open market. These transactions may include short sales, stabilizing transactions and purchases to cover positions created by short sales. Short sales involve the sale by the underwriters of a greater number of shares than they are required to purchase in this offering. "Covered" short sales are sales made in an amount not greater than the underwriters' option to purchase additional shares from us in this offering. The underwriters may close out any covered short position by either exercising their option to purchase additional shares or purchasing shares in the open market. In determining the source of shares to close out the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase additional shares pursuant to the option granted to them. "Naked" short sales are any sales in excess of such option. The underwriters must close out any naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the common stock in the open market after pricing that could adversely affect investors who purchase in this offering. Stabilizing transactions consist of various bids for or purchases of common stock made by the underwriters in the open market prior to the closing of this offering.

The underwriters may also impose a penalty bid. This occurs when a particular underwriter repays to the underwriters a portion of the underwriting discount received by it because the representatives have repurchased shares sold by or for the account of such underwriter in stabilizing or short covering transactions.

Purchases to cover a short position and stabilizing transactions, as well as other purchases by the underwriters for their own accounts, may have the effect of preventing or retarding a decline in the market price of our common stock, and, together with the imposition of the penalty bid, may stabilize, maintain or otherwise affect the market price of our common stock. As a result, the price of the common stock may be higher than the price that otherwise might exist in the open market. If these activities are commenced, they may be discontinued at any time. These transactions may be effected on The NASDAQ Global Market, in the over-the-counter market or otherwise.

Neither we nor any of the underwriters make any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of our common stock. In addition, neither we nor any of the underwriters make any representation that the representative will engage in these transactions or that these transactions, once commenced, will not be discontinued without notice.

In connection with this offering, certain of the underwriters or securities dealers may distribute prospectuses by electronic means, such as e-mail. In addition, certain of the underwriters or

securities dealers may facilitate Internet distribution for this offering to certain of its Internet subscription customers. Certain of the underwriters may allocate a limited number of shares for sale to online brokerage customers. An electronic prospectus is available on the Internet websites maintained by certain of the underwriters. Other than the prospectus in electronic format, the information on the underwriters' websites are not part of this prospectus.

The underwriters do not expect sales to discretionary accounts to exceed five percent of the total number of shares offered.

We estimate that the total expenses of this offering payable by us, excluding the underwriting discount, will be approximately \$ . We have agreed to reimburse the underwriters for certain expenses in an amount up to \$ .

We have agreed to indemnify the several underwriters against certain liabilities, including liabilities under the Securities Act.

#### **Conflict of Interest**

Certain affiliates of Goldman, Sachs & Co., an underwriter of this offering, beneficially own % of our common stock as of June 30, 2014, and are together entitled to designate one member of our board of directors prior to the closing of this offering. As a result, Goldman, Sachs & Co. is deemed to have a "conflict of interest" within the meaning of Rule 5121 of the Financial Industry Regulatory Authority, or FINRA. Accordingly, this offering will be made in compliance with the applicable provisions of FINRA Rule 5121. FINRA Rule 5121 prohibits Goldman, Sachs & Co. from making sales to discretionary accounts without the prior written approval of the account holder and requires that a "qualified independent underwriter," as defined in FINRA Rule 5121, participate in the preparation of the registration statement, of which this prospectus forms a part, and exercise its usual standards of due diligence with respect thereto. Morgan Stanley & Co. LLC has agreed to act as "qualified independent underwriter" for this offering. Morgan Stanley & Co. LLC will not receive any additional fees for serving as "qualified independent underwriter" in connection with this offering. We have agreed to indemnify Morgan Stanley & Co. LLC against certain liabilities incurred in connection with acting as "qualified independent underwriter," including liabilities under the Securities Act and to contribute to payments that Morgan Stanley & Co. LLC may be required to make in that respect.

#### **Other Relationships**

The underwriters and their respective affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, investment research, principal investment, hedging, financing and brokerage activities. Certain of the underwriters and their respective affiliates have, from time to time, performed, and may in the future perform, various financial advisory, commercial banking and investment banking services for the issuer or its affiliates, for which they received or will receive customary fees and expenses. Certain affiliates of Goldman, Sachs & Co. own interests in our company as described in " — Conflict of Interest" above.

In the ordinary course of their various business activities, the underwriters and their respective affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers, and such investment and securities activities may involve securities or instruments of the issuer. The underwriters and their respective affiliates may also make investment recommendations or publish or express independent research views in respect of such securities or instruments and may at any time hold, or recommend to clients that they acquire, long or short positions in such securities and instruments.

## European Economic Area

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a Relevant Member State), each underwriter has represented and agreed that with effect from and including the date on which the Prospectus Directive is implemented in that Relevant Member State (the Relevant Implementation Date) it has not made and will not make an offer of shares to the public in that Relevant Member State prior to the publication of a prospectus in relation to the shares which has been approved by the competent authority in that Relevant Member State or, where appropriate, approved in another Relevant Member State and notified to the competent authority in that Relevant Member State, all in accordance with the Prospectus Directive, except that it may, with effect from and including the Relevant Implementation Date, make an offer of shares to the public in that Relevant Member State at any time:

- (1) to any legal entity which is a qualified investor as defined in the Prospectus Directive;
- (2) to fewer than 100 or, if the Relevant Member State has implemented the relevant provision of the 2010 PD Amending Directive, 150 natural or legal persons (other than qualified investors as defined in the Prospectus Directive), as permitted under the Prospectus Directive, subject to obtaining the prior consent of the relevant underwriter or underwriters nominated by the Issuer for any such offer; or
- (3) in any other circumstances which do not require the publication by the Issuer of a prospectus pursuant to Article 3(2) of the Prospectus Directive;

provided that no such offer of shares shall require the Issuer or any underwriter to publish a prospectus pursuant to Article 3 of the Prospectus Directive or supplement a prospectus pursuant to Article 16 of the Prospectus Directive.

For the purposes of this provision, the expression an "offer of shares to the public" in relation to any shares in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the shares to be offered so as to enable an investor to decide to purchase or subscribe the shares, as the same may be varied in that Relevant Member State by any measure implementing the Prospectus Directive in that Relevant Member State and the expression Prospectus Directive means Directive 2003/71/EC (and amendments thereto, including the 2010 PD Amending Directive, to the extent implemented in the Relevant Member State), and includes any relevant implementing measure in the Relevant Member State and the expression 2010 PD Amending Directive means Directive 2010/73/EU.

## United Kingdom

Each underwriter has represented and agreed that:

- (1) it has only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the FSMA) received by it in connection with the issue or sale of the shares in circumstances in which Section 21(1) of the FSMA does not apply to the Issuer; and
- (2) it has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the shares in, from or otherwise involving the United Kingdom.

## Hong Kong

The shares may not be offered or sold by means of any document other than (i) in circumstances which do not constitute an offer to the public within the meaning of the Companies

Ordinance (Cap. 32, Laws of Hong Kong), or (ii) to "professional investors" within the meaning of the Securities and Futures Ordinance (Cap. 571, Laws of Hong Kong) and any rules made thereunder, or (iii) in other circumstances which do not result in the document being a "prospectus" within the meaning of the Companies Ordinance (Cap. 32, Laws of Hong Kong), and no advertisement, invitation or document relating to the shares may be issued or may be in the possession of any person for the purpose of issue (in each case whether in Hong Kong or elsewhere), which is directed at, or the contents of which are likely to be accessed or read by, the public in Hong Kong (except if permitted to do so under the laws of Hong Kong) other than with respect to shares which are or are intended to be disposed of only to persons outside Hong Kong or only to "professional investors" within the meaning of the Securities and Futures Ordinance (Cap. 571, Laws of Hong Kong) and any rules made thereunder.

## **Singapore**

This prospectus has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this prospectus and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the shares may not be circulated or distributed, nor may the shares be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor under Section 274 of the Securities and Futures Act, Chapter 289 of Singapore (the "SFA"), (ii) to a relevant person, or any person pursuant to Section 275(1A), and in accordance with the conditions, specified in Section 275 of the SFA or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the shares are subscribed or purchased under Section 275 by a relevant person which is: (a) a corporation (which is not an accredited investor) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or (b) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary is an accredited investor, shares, debentures and units of shares and debentures of that corporation or the beneficiaries' rights and interest in that trust shall not be transferable for 6 months after that corporation or that trust has acquired the shares under Section 275 except: (1) to an institutional investor under Section 274 of the SFA or to a relevant person, or any person pursuant to Section 275(1A), and in accordance with the conditions, specified in Section 275 of the SFA; (2) where no consideration is given for the transfer; or (3) by operation of law.

## **Japan**

The securities have not been and will not be registered under the Financial Instruments and Exchange Law of Japan (the Financial Instruments and Exchange Law) and each underwriter has agreed that it will not offer or sell any securities, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan (which term as used herein means any person resident in Japan, including any corporation or other entity organized under the laws of Japan), or to others for re-offering or resale, directly or indirectly, in Japan or to a resident of Japan, except pursuant to an exemption from the registration requirements of, and otherwise in compliance with, the Financial Instruments and Exchange Law and any other applicable laws, regulations and ministerial guidelines of Japan.

## LEGAL MATTERS

The validity of the shares of common stock offered hereby will be passed upon for us by Latham & Watkins LLP, Boston, Massachusetts. Certain legal matters will be passed upon for the underwriters by Cooley LLP, New York, New York.

## EXPERTS

Ernst & Young LLP, independent registered public accounting firm, has audited our financial statements at December 31, 2012 and 2013, and for the years then ended and for the period from April 27, 2006 (inception) to December 31, 2013, as set forth in their report. We have included our financial statements in the prospectus 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 Securities and Exchange Commission a registration statement on Form S-1 under the Securities Act with respect to the shares of common stock offered hereby. This prospectus, which constitutes a part of the registration statement, does not contain all of the information set forth in the registration statement or the exhibits and schedules filed therewith. For further information about us and the common stock offered hereby, we refer you to the registration statement and the exhibits and schedules filed thereto. Statements contained in this prospectus regarding the contents of any contract or any other document that is filed as an exhibit to the registration statement are not necessarily complete, and each such statement is qualified in all respects by reference to the full text of such contract or other document filed as an exhibit to the registration statement. Upon the closing of this offering, we will be required to file periodic reports, proxy statements, and other information with the Securities and Exchange Commission pursuant to the Securities Exchange Act of 1934. You may read and copy this information at the Public Reference Room of the Securities and Exchange Commission, 100 F Street, N.E., Room 1580, Washington, D.C. 20549. You may obtain information on the operation of the public reference rooms by calling the Securities and Exchange Commission at 1-800-SEC-0330. The Securities and Exchange Commission also maintains an Internet website that contains reports, proxy statements and other information about registrants, like us, that file electronically with the Securities and Exchange Commission. The address of that site is [www.sec.gov](http://www.sec.gov).



INDEX TO FINANCIAL STATEMENTS

	<b>Page</b>
<a href="#">Report of Independent Registered Public Accounting Firm</a>	<a href="#">F-2</a>
<a href="#">Balance Sheets</a>	<a href="#">F-3</a>
<a href="#">Statements of Operations and Comprehensive Loss</a>	<a href="#">F-4</a>
<a href="#">Statements of Redeemable Convertible Preferred Stock and Stockholders' (Deficit) Equity</a>	<a href="#">F-5</a>
<a href="#">Statements of Cash Flows</a>	<a href="#">F-10</a>
<a href="#">Notes to Financial Statements</a>	<a href="#">F-12</a>

**Report of Independent Registered Public Accounting Firm**

The Board of Directors and Stockholders of  
T2 Biosystems, Inc.

We have audited the accompanying balance sheets of T2 Biosystems, Inc. (a development stage enterprise) (the Company) as of December 31, 2012 and 2013, and the related statements of operations and comprehensive loss, redeemable convertible preferred stock and stockholders' (deficit) equity and cash flows for the years then ended and the period from April 27, 2006 (inception) to December 31, 2013. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. We were not engaged to perform an audit of the Company's internal control over financial reporting. Our audit included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of T2 Biosystems, Inc. (a development stage enterprise) as of December 31, 2012 and 2013 and the results of its operations and its cash flows for the years then ended and the period from April 27, 2006 (inception) to December 31, 2013, in conformity with U.S. generally accepted accounting principles.

/s/ Ernst & Young LLP

Boston, Massachusetts  
April 24, 2014

**T2 Biosystems, Inc.**  
**(A Development Stage Company)**

**Balance Sheets**

(In thousands, except share and per share data)

	December 31, 2012	December 31, 2013	March 31, 2014 Actual (unaudited)	March 31, 2014 Pro forma (unaudited)
<b>Assets</b>				
Current assets:				
Cash and cash equivalents	\$ 9,709	\$ 30,198	\$ 23,698	\$
Prepaid expenses and other current assets	60	195	247	
Restricted cash, current portion	80	—	—	
Total current assets	9,849	30,393	23,945	
Property and equipment, net	1,195	1,118	1,237	
Restricted cash, net of current portion	340	340	340	
Other assets	47	34	310	
Total assets	<u>\$ 11,431</u>	<u>\$ 31,885</u>	<u>\$ 25,832</u>	<u>\$</u>
<b>Liabilities, redeemable convertible preferred stock and stockholders' (deficit) equity</b>				
Current liabilities:				
Accounts payable	\$ 571	\$ 943	\$ 1,035	\$
Accrued expenses	733	1,319	2,372	
Current portion of notes payable	820	1,759	1,764	
Current portion of deferred rent	5	25	30	
Total current liabilities	2,129	4,046	5,201	
Notes payable, net of current portion	5,058	3,299	2,855	
Deferred rent, net of current portion	70	45	35	
Warrants to purchase redeemable securities	695	1,225	1,152	
Commitments and contingencies (Note 14)				
Redeemable convertible preferred stock (Note 7)	66,137	112,813	114,719	
Stockholders' (deficit) equity:				
Common stock, \$0.001 par value; 19,926,408, 28,254,907 and 28,254,907 shares authorized at December 31, 2012 and 2013 and March 31, 2014 (unaudited), respectively; 2,315,512, 2,400,422 and 2,400,422 shares issued and outstanding at December 31, 2012 and 2013 and March 31, 2014 (unaudited), respectively; shares issued and outstanding pro forma (unaudited)	2	2	2	
Additional paid-in capital	—	—	—	
Deficit accumulated during the development stage	(62,660)	(89,545)	(98,132)	
Total stockholders' (deficit) equity	<u>(62,658)</u>	<u>(89,543)</u>	<u>(98,130)</u>	
Total liabilities, redeemable convertible preferred stock and stockholders' (deficit) equity	<u>\$ 11,431</u>	<u>\$ 31,885</u>	<u>\$ 25,832</u>	<u>\$</u>

See accompanying notes to financial statements.

**T2 Biosystems, Inc.**  
**(A Development Stage Company)**

**Statements of Operations and Comprehensive Loss**

(In thousands, except share and per share data)

	Year Ended		Three Months Ended		Period from
	December 31,		March 31,		April 27,
	2012	2013	2013	2014	2006
			(unaudited)	(unaudited)	(Inception) to
					March 31,
					2014
					(unaudited)
Research and grant revenue	\$ 19	\$ 266	\$ —	\$ —	\$ 3,085
Operating expenses:					
Research and development	11,727	14,936	3,561	5,065	59,388
Selling, general and administrative	2,945	5,022	1,039	1,842	22,552
Total operating expenses	14,672	19,958	4,600	6,907	81,940
Loss from operations	(14,653)	(19,692)	(4,600)	(6,907)	(78,855)
Interest expense, net	(154)	(403)	(105)	(86)	(937)
Other income (expense), net	352	(515)	125	73	611
Net loss	<u>\$ (14,455)</u>	<u>\$ (20,610)</u>	<u>\$ (4,580)</u>	<u>\$ (6,920)</u>	<u>\$ (79,181)</u>
Comprehensive loss	<u>\$ (14,455)</u>	<u>\$ (20,610)</u>	<u>\$ (4,580)</u>	<u>\$ (6,920)</u>	<u>\$ (79,181)</u>
Reconciliation of net loss to net loss applicable to common stockholders:					
Net loss	\$ (14,455)	\$ (20,610)	\$ (4,580)	\$ (6,920)	\$ (79,181)
Accretion of redeemable convertible preferred stock to redemption value	\$ (4,412)	\$ (6,908)	\$ (1,176)	\$ (1,906)	\$ (21,307)
Net loss applicable to common stockholders	<u>\$ (18,867)</u>	<u>\$ (27,518)</u>	<u>\$ (5,756)</u>	<u>\$ (8,826)</u>	<u>\$ (100,488)</u>
Net loss per share applicable to common stockholders – basic and diluted	<u>\$ (8.15)</u>	<u>\$ (11.60)</u>	<u>\$ (2.45)</u>	<u>\$ (3.68)</u>	<u>\$ (58.62)</u>
Weighted-average number of common shares used in computing net loss per share applicable to common stockholders – basic and diluted	<u>2,314,832</u>	<u>2,372,542</u>	<u>2,346,601</u>	<u>2,400,422</u>	<u>1,714,171</u>
Pro forma net loss per share applicable to common stockholders — basic and diluted (unaudited)	<u>\$</u>	<u>\$</u>	<u>\$</u>	<u>\$</u>	<u>\$</u>
Pro forma weighted-average number of common shares used in computing pro forma net loss per share applicable to common stockholders — basic and diluted (unaudited)	<u></u>	<u></u>	<u></u>	<u></u>	<u></u>

See accompanying notes to financial statements.

**T2 Biosystems, Inc.**  
**(A Development Stage Company)**  
**Statements of Redeemable Convertible Preferred Stock and Stockholders' (Deficit) Equity**  
**(In thousands, except share and per share data)**

	Series A-1 Redeemable Convertible Preferred Stock		Series A-2 Redeemable Convertible Preferred Stock		Series B Redeemable Convertible Preferred Stock		Series C Redeemable Convertible Preferred Stock		Series D Redeemable Convertible Preferred Stock		Series E Redeemable Convertible Preferred Stock		Common Stock		Additional Paid-In Capital	Deficit Accumulated During the Development Stage	Total Stockholders' (Deficit) Equity	
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount				
Balance as of April 27, 2006	—	\$ —	—	\$ —	—	\$ —	—	\$ —	—	\$ —	—	\$ —	—	\$ —	—	\$ —	—	
Issuance of common stock	—	—	—	—	—	—	—	—	—	—	—	—	—	18,180	—	—	—	
Issuance of Series A-1 redeemable convertible preferred stock, net of issuance costs of \$0	282,849	533	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Issuance of Series A-2 redeemable convertible preferred stock, net of issuance costs of \$0	—	—	1,703,959	4,845	—	—	—	—	—	—	—	—	—	—	—	—	—	
Accretion of Series A-1 and A-2 redeemable convertible preferred stock to redemption value	—	20	—	21	—	—	—	—	—	—	—	—	—	—	(31)	(10)	(41)	
Vesting of restricted common stock	—	—	—	—	—	—	—	—	—	—	—	—	—	590,610	1	5	—	6
Issuance of common stock for services	—	—	—	—	—	—	—	—	—	—	—	—	—	49,903	—	9	—	9
Stock-based compensation expense	—	—	—	—	—	—	—	—	—	—	—	—	—	—	17	—	—	17
Net loss	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	(496)	—	(496)
Balance at December 31, 2006	282,849	553	1,703,959	4,866	—	—	—	—	—	—	—	—	—	658,693	1	—	(506)	(505)
Accretion of Series A-1 and A-2 redeemable convertible preferred stock to redemption value	—	48	—	418	—	—	—	—	—	—	—	—	—	—	(80)	(386)	(466)	
Issuance of common stock for services	—	—	—	—	—	—	—	—	—	—	—	—	—	34,775	—	7	—	7
Vesting of restricted common stock	—	—	—	—	—	—	—	—	—	—	—	—	—	337,464	—	3	—	3
Stock-based compensation expense	—	—	—	—	—	—	—	—	—	—	—	—	—	—	70	—	—	70
Net loss	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	(2,842)	—	(2,842)
Balance at December 31, 2007	282,849	601	1,703,959	5,284	—	—	—	—	—	—	—	—	—	1,030,932	1	—	(3,734)	(3,733)

See accompanying notes to financial statements.

**T2 Biosystems, Inc.**  
**(A Development Stage Company)**  
**Statements of Redeemable Convertible Preferred Stock and Stockholders' (Deficit) Equity (Continued)**  
**(In thousands, except share and per share data)**

	Series A-1 Redeemable Convertible Preferred Stock		Series A-2 Redeemable Convertible Preferred Stock		Series B Redeemable Convertible Preferred Stock		Series C Redeemable Convertible Preferred Stock		Series D Redeemable Convertible Preferred Stock		Series E Redeemable Convertible Preferred Stock		Common Stock		Additional Paid-In Capital	Deficit Accumulated During the Development Stage	Total Stockholders' (Deficit) Equity
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount			
Issuance of Series B redeemable convertible preferred stock, net of issuance costs of \$0	—	\$ —	—	\$ —	3,249,877	\$ 10,722	—	\$ —	—	\$ —	—	\$ —	—	\$ —	—	\$ —	—
Accretion of Series A-1, A-2, and B redeemable convertible preferred stock to redemption value	—	46	—	411	—	369	—	—	—	—	—	—	—	—	(133)	(693)	(826)
Exercise of stock options	—	—	—	—	—	—	—	—	—	—	—	—	28,623	—	8	—	8
Vesting of restricted common stock	—	—	—	—	—	—	—	—	—	—	—	—	415,750	—	25	—	25
Stock-based compensation expense	—	—	—	—	—	—	—	—	—	—	—	—	—	—	100	—	100
Net loss	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	(5,964)	(5,964)
Balance at December 31, 2008	282,849	647	1,703,959	5,695	3,249,877	11,091	—	—	—	—	—	—	1,475,305	1	—	(10,391)	(10,390)
Accretion of Series A-1, A-2, and B redeemable convertible preferred stock to redemption value	—	46	—	411	—	880	—	—	—	—	—	—	—	—	(243)	(1,094)	(1,337)
Exercise of stock options	—	—	—	—	—	—	—	—	—	—	—	—	11,770	—	3	—	3
Vesting of restricted common stock	—	—	—	—	—	—	—	—	—	—	—	—	409,728	1	23	—	24
Stock-based compensation expense	—	—	—	—	—	—	—	—	—	—	—	—	—	—	217	—	217
Net loss	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	(5,390)	(5,390)
Balance at December 31, 2009	282,849	693	1,703,959	6,106	3,249,877	11,971	—	—	—	—	—	—	1,896,803	2	—	(16,875)	(16,873)

See accompanying notes to financial statements.

**T2 Biosystems, Inc.**  
**(A Development Stage Company)**  
**Statements of Redeemable Convertible Preferred Stock and Stockholders' (Deficit) Equity (Continued)**  
**(In thousands, except share and per share data)**

	Series A-1 Redeemable Convertible Preferred Stock		Series A-2 Redeemable Convertible Preferred Stock		Series B Redeemable Convertible Preferred Stock		Series C Redeemable Convertible Preferred Stock		Series D Redeemable Convertible Preferred Stock		Series E Redeemable Convertible Preferred Stock		Common Stock		Additional Paid-In Capital	Deficit Accumulated During the Development Stage	Total Stockholders' (Deficit) Equity
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount			
Issuance of Series C redeemable convertible preferred stock, net of issuance costs of \$154	—	\$ —	—	\$ —	—	\$ —	4,055,125	\$ 14,691	—	\$ —	—	\$ —	—	\$ —	—	\$ —	—
Accretion of Series A-1, A-2, B, and C redeemable convertible preferred stock to redemption value	—	46	—	408	—	876	—	775	—	—	—	—	—	—	(284)	(1,821)	(2,105)
Exercise of stock options	—	—	—	—	—	—	—	—	—	—	—	—	16,493	—	7	—	7
Vesting of restricted common stock	—	—	—	—	—	—	—	—	—	—	—	—	269,262	—	22	—	22
Stock-based compensation expense	—	—	—	—	—	—	—	—	—	—	—	—	—	—	255	—	255
Net loss	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	(7,234)	(7,234)
Balance at December 31, 2010	282,849	739	1,703,959	6,514	3,249,877	12,847	4,055,125	15,466	—	—	—	—	2,182,558	2	—	(25,930)	(25,928)
Issuance of Series D redeemable convertible preferred stock, net of issuance costs of \$147	—	—	—	—	—	—	—	—	5,054,945	22,853	—	—	—	—	—	—	—
Accretion of Series A-1, A-2, B, C, and D redeemable convertible preferred stock to redemption value	—	45	—	404	—	873	—	1,215	—	769	—	—	—	—	(309)	(2,997)	(3,306)
Exercise of stock options	—	—	—	—	—	—	—	—	—	—	—	—	62,718	—	19	—	19
Vesting of restricted common stock	—	—	—	—	—	—	—	—	—	—	—	—	66,284	—	18	—	18
Stock-based compensation expense	—	—	—	—	—	—	—	—	—	—	—	—	—	—	272	—	272
Net loss	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	(15,270)	(15,270)
Balance at December 31, 2011	282,849	784	1,703,959	6,918	3,249,877	13,720	4,055,125	16,681	5,054,945	23,622	—	—	2,311,560	2	—	(44,197)	(44,195)

See accompanying notes to financial statements.

**T2 Biosystems, Inc.**  
**(A Development Stage Company)**  
**Statements of Redeemable Convertible Preferred Stock and Stockholders' (Deficit) Equity (Continued)**  
**(In thousands, except share and per share data)**

	Series A-1 Redeemable Convertible Preferred Stock		Series A-2 Redeemable Convertible Preferred Stock		Series B Redeemable Convertible Preferred Stock		Series C Redeemable Convertible Preferred Stock		Series D Redeemable Convertible Preferred Stock		Series E Redeemable Convertible Preferred Stock		Common Stock		Additional Paid-In Capital	Deficit Accumulated During the Development Stage	Total Stockholders' (Deficit) Equity
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount			
Accretion of Series A-1, A-2, B, C, and D redeemable convertible preferred stock to redemption value	—	\$ 46	—	\$ 404	—	\$ 874	—	\$ 1,214	—	\$ 1,874	—	\$ —	—	\$ —	(404)	\$ (4,008)	\$ (4,412)
Exercise of stock options	—	—	—	—	—	—	—	—	—	—	—	—	3,952	—	1	—	—
Stock-based compensation expense	—	—	—	—	—	—	—	—	—	—	—	—	—	—	403	—	4
Net loss	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	(14,455)	(14,455)
Balance at December 31, 2012	282,849	830	1,703,959	7,322	3,249,877	14,594	4,055,125	17,895	5,054,945	25,496	—	—	2,315,512	2	—	(62,660)	(62,660)
Issuance of Series E redeemable convertible preferred stock, net of issuance costs of \$232	—	—	—	—	—	—	—	—	—	—	6,930,967	39,768	—	—	—	—	—
Accretion of Series A-1, A-2, B, C, D, and E redeemable convertible preferred stock to redemption value	—	44	—	402	—	870	—	1,205	—	1,861	—	2,526	—	—	(633)	(6,275)	(6,908)
Exercise of stock options	—	—	—	—	—	—	—	—	—	—	—	—	84,910	—	55	—	—
Stock-based compensation expense	—	—	—	—	—	—	—	—	—	—	—	—	—	—	578	—	5
Net loss	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	(20,610)	(20,610)
Balance at December 31, 2013	282,849	\$ 874	1,703,959	\$ 7,724	3,249,877	\$ 15,464	4,055,125	\$ 19,100	5,054,945	\$ 27,357	6,930,967	\$ 42,294	2,400,422	\$ 2	\$ —	\$ (89,545)	\$ (89,545)

See accompanying notes to financial statements.



**T2 Biosystems, Inc.**  
**(A Development Stage Company)**  
**Statements of Redeemable Convertible Preferred Stock and Stockholders' (Deficit) Equity (Continued)**  
**(In thousands, except share and per share data)**

	Series A-1 Redeemable Convertible Preferred Stock		Series A-2 Redeemable Convertible Preferred Stock		Series B Redeemable Convertible Preferred Stock		Series C Redeemable Convertible Preferred Stock		Series D Redeemable Convertible Preferred Stock		Series E Redeemable Convertible Preferred Stock		Common Stock		Additional Paid-In Capital	Deficit Accumulated During the Development Stage	Total Stockholders' (Deficit)
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount			
Accretion of Series A-1, A-2, B, C, D, and E redeemable convertible preferred stock to redemption value	—	\$ 11	—	\$ 100	—	\$ 217	—	\$ 301	—	\$ 465	—	\$ 812	—	—	\$ (239)	\$ (1,667)	\$ (1,906)
Stock-based compensation expense	—	—	—	—	—	—	—	—	—	—	—	—	—	—	239	—	—
Net loss	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	(6,920)	(6,920)
Balance at March 31, 2014 (unaudited)	282,849	\$ 885	1,703,959	\$ 7,824	3,249,877	\$ 15,681	4,055,125	\$ 19,401	5,054,945	\$ 27,822	6,930,967	\$ 43,106	2,400,422	\$ 2	—	\$ (98,132)	\$ (98,132)
Conversion of convertible preferred stock into common stock (unaudited)		\$		\$		\$		\$		\$		\$		\$		\$	\$
Issuance of common stock upon net exercise of and reclassification of warrants to purchase redeemable convertible preferred stock (unaudited)																	
Pro forma balance at March 31, 2014 (unaudited)		\$		\$		\$		\$		\$		\$		\$		\$	\$

See accompanying notes to financial statements.

**T2 Biosystems, Inc.**  
**(A Development Stage Company)**

**Statements of Cash Flows**

(In thousands)

	Year Ended December 31,		Three Months Ended March 31,		Period from April 27, 2006 (Inception) to March 31, 2014
	2012	2013	2013 (unaudited)	2014 (unaudited)	2014 (unaudited)
<b>Operating activities</b>					
Net loss	\$ (14,455)	\$ (20,610)	\$ (4,580)	\$ (6,920)	\$ (79,181)
Adjustments to reconcile net loss to net cash used in operating activities:					
Depreciation and amortization	571	584	138	144	3,180
Stock-based compensation expense	403	578	122	239	2,150
Noncash interest expense	46	44	11	11	245
Noncash warrant expense	81	—	—	—	598
Change in fair value of warrants	(132)	530	(110)	(73)	346
Loss on disposal of asset	—	6	—	—	6
Stock-based license fees	—	—	—	—	16
Deferred rent	15	(5)	—	(6)	64
Changes in operating assets and liabilities:					
Prepaid expenses and other current assets	(2)	(138)	(108)	(52)	(233)
Accounts payable	(88)	372	38	93	1,036
Accrued expenses	258	586	622	773	2,092
Net cash used in operating activities	<u>(13,303)</u>	<u>(18,053)</u>	<u>(3,867)</u>	<u>(5,791)</u>	<u>(69,681)</u>
<b>Investing activities</b>					
Purchases of property and equipment	(283)	(513)	(115)	(263)	(4,423)
Decrease (increase) in restricted cash	—	80	80	—	(340)
Net cash used in investing activities	<u>(283)</u>	<u>(433)</u>	<u>(35)</u>	<u>(263)</u>	<u>(4,763)</u>
<b>Financing activities</b>					
Proceeds from issuance of redeemable convertible preferred stock, net	—	39,768	39,768	—	93,412
Proceeds from issuance of common stock and stock options exercises, net	1	55	33	—	93
Proceeds from issuance of restricted stock	—	—	—	—	99
Proceeds from issuance of note payable, net	4,924	—	—	—	8,331
Repayments of note payable	(374)	(848)	(52)	(446)	(3,793)
Net cash provided by (used in) financing activities	<u>4,551</u>	<u>38,975</u>	<u>39,749</u>	<u>(446)</u>	<u>98,142</u>
Net (decrease) increase in cash and cash equivalents	(9,035)	20,489	35,847	(6,500)	23,698
Cash and cash equivalents at beginning of period	18,744	9,709	9,709	30,198	—
Cash and cash equivalents at end of period	<u>\$ 9,709</u>	<u>\$ 30,198</u>	<u>\$ 45,556</u>	<u>\$ 23,698</u>	<u>\$ 23,698</u>

See accompanying notes to financial statements.

**T2 Biosystems, Inc.**  
**(A Development Stage Company)**  
**Statements of Cash Flows (Continued)**  
**(In thousands)**

	Year Ended December 31,		Three Months Ended March 31,		Period from April 27, 2006 (Inception) to March 31, 2014
	2012	2013	2013	2014	(unaudited)
<b>Supplemental disclosures of cash flow information</b>					
Cash paid for interest	\$ 101	\$ 345	\$ 62	\$ 51	\$ 910
<b>Supplemental disclosures of noncash investing and financing activities</b>					
Accretion of Series A-1, A-2, B, C, D and E redeemable convertible preferred stock to redemption value	\$ 4,412	\$ 6,908	\$ 1,176	\$ 1,906	\$ 21,307
Warrants issued in connection with debt	\$ 64	\$ —	\$ —	\$ —	\$ 280
Warrants issued in connection with development agreement	\$ —	\$ —	\$ —	\$ —	\$ 598
Initial public offering costs incurred but unpaid at period end	\$ —	\$ —	\$ —	\$ 280	\$ 280

See accompanying notes to financial statements.

**T2 Biosystems, Inc.  
(A Development Stage Company)**

**Notes to Financial Statements**

**Years Ended December 31, 2012 and 2013, Three Months  
Ended March 31, 2013 and 2014 and the Period from  
April 27, 2006 (Inception) to March 31, 2014**

**1. Nature of Business**

T2 Biosystems, Inc. (the "Company") was incorporated on April 27, 2006 as a Delaware corporation with operations based in Lexington, Massachusetts. The Company is an *in vitro* diagnostic company that has developed an innovative and proprietary platform that enables rapid, sensitive and simple direct detection of pathogens, biomarkers and other abnormalities across a variety of unpurified patient sample types. The Company is using its T2 Magnetic Resonance platform ("T2MR") to develop a broad set of applications aimed at reducing mortality rates, improving patient outcomes and reducing the cost of healthcare by helping medical professionals make targeted treatment decisions earlier. The Company's initial development efforts target sepsis and hemostasis, areas of significant unmet medical need in which existing therapies could be more effective with improved diagnostics. The Company has completed a pivotal clinical trial for T2Dx and T2Candida.

Since inception, the Company has devoted substantially all of its efforts to research and development, business planning, recruiting management and technical staff, acquiring operating assets and raising capital. The Company has not recognized any revenue from its planned principal operations, and as a result, is considered to be in the development stage.

**Liquidity**

At December 31, 2013 and March 31, 2014, the Company has a deficit accumulated in the development stage of \$89,545,000 and \$98,132,000, respectively. The future success of the Company is dependent on its ability to obtain additional capital to develop its product candidates and ultimately upon its ability to attain profitable operations. To date, the Company has funded its operations primarily through private placements of its redeemable convertible preferred stock and through debt financing arrangements. Management believes that its cash resources of \$30,198,000 at December 31, 2013 will be sufficient to allow the Company to fund its current operating plan and continue as a going concern through at least January 1, 2015. Thereafter, the Company will be required to obtain additional funding, alternative means of financial support, or both, in order to continue to fund its operations. There can be no assurances, however, that the current operating plan will be achieved or that additional funding will be available on terms acceptable to the Company, or at all.

The Company is subject to a number of risks similar to other life science companies in the development stage, including, but not limited to, raising additional capital, development by its competitors of new technological innovations, development and market acceptance of the Company's product candidates, and protection of proprietary technology.

**T2 Biosystems, Inc.**  
**(A Development Stage Company)**

**Notes to Financial Statements (Continued)**

**2. Summary of Significant Accounting Policies**

**Basis of Presentation**

The Company's financial statements have been prepared in conformity with generally accepted accounting principles in the United States of America ("GAAP"). Any reference in these notes to applicable guidance is meant to refer to the authoritative United States generally accepted accounting principles as found in the Accounting Standards Codification ("ASC") and Accounting Standards Updates ("ASU") of the Financial Accounting Standards Board ("FASB").

**Use of Estimates**

The preparation of the Company's financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. The Company utilizes certain estimates in the determination of the fair value of its common stock and stock options, the fair value of liability-classified warrants, deferred tax valuation allowances, revenue recognition, and to record expenses relating to research and development contracts. The Company bases its estimates on historical experience and other market-specific or other relevant assumptions that it believes to be reasonable under the circumstances. Actual results could differ from such estimates.

The Company utilizes significant estimates and assumptions in determining the fair value of its common stock. The Company utilized various valuation methodologies in accordance with the framework of the 2004 American Institute of Certified Public Accountants Technical Practice Aid, *Valuation of Privately-Held Company Equity Securities Issued as Compensation*, to estimate the fair value of its common stock. Each valuation methodology includes estimates and assumptions that require the Company's judgment. These estimates and assumptions include a number of objective and subjective factors, including external market conditions, the prices at which the Company sold shares of preferred stock, the superior rights and preferences of securities senior to the Company's common stock at the time and the likelihood of achieving a liquidity event, such as an initial public offering or sale. Significant changes to the key assumptions used in the valuations could result in different fair values of common stock at each valuation date.

**Unaudited Interim Financial Information**

The accompanying interim balance sheet as of March 31, 2014, the statements of operations and comprehensive loss and statements of cash flows for the three months ended March 31, 2013 and 2014 and for the period from April 27, 2006 (inception) to March 31, 2014, the statement of redeemable convertible preferred stock and stockholders' equity (deficit) for the three months ended March 31, 2014, and the financial data and other information disclosed in these notes related to the three months ended March 31, 2013 and 2014 and for the period from April 27, 2006 (inception) to March 31, 2014 are unaudited. The unaudited interim financial statements have been prepared on the same basis as the audited annual financial statements, and, in the opinion of management, reflect all adjustments, consisting of normal recurring adjustments, necessary for the fair presentation of the Company's financial position as of March 31, 2014, and the results of its operations and its cash flows for the three months ended March 31, 2013 and 2014 and for the period from April 27, 2006 (inception) to March 31, 2014. The results for the three months ended

**T2 Biosystems, Inc.**  
**(A Development Stage Company)**

**Notes to Financial Statements (Continued)**

**2. Summary of Significant Accounting Policies (Continued)**

March 31, 2014 are not necessarily indicative of the results to be expected for the year ending December 31, 2014, any other interim periods, or any future year or period.

**Unaudited Pro Forma Presentation**

In 2014, the Company's board of directors authorized the management of the Company to file a registration statement with the U.S. Securities and Exchange Commission ("SEC") for the Company to sell shares of its common stock to the public. Upon the closing of a qualified (as defined in the Company's Articles of Incorporation) initial public offering ("IPO") or otherwise upon the election of the holders of the specified percentage of redeemable convertible preferred stock, all outstanding shares of redeemable convertible preferred stock will automatically convert into common stock. The unaudited pro forma balance sheet and statement of redeemable convertible preferred stock and stockholders' (deficit) equity as of March 31, 2014 assumes the automatic conversion of all outstanding redeemable convertible preferred stock into shares of common stock and reflects the issuance of \_\_\_\_\_ shares of common stock associated with the expected net exercise of outstanding warrants exercisable for redeemable convertible preferred stock, including the resulting reclassification of the related liability for warrants to purchase redeemable securities to additional paid-in capital, upon the completion of the proposed offering. Additionally, the unaudited pro forma balance sheet and statement of redeemable convertible preferred stock and stockholders' (deficit) equity as of March 31, 2014 reflects the assumed allocation of value to occur upon the automatic conversion of all outstanding redeemable convertible preferred stock into shares of common stock whereupon deficit accumulated during the development stage has been restored for the cumulative accretion to redemption value of redeemable convertible preferred stock recorded through March 31, 2014, while the remainder of value is reflected within common stock and additional paid-in capital.

Unaudited pro forma basic and diluted net loss per share was calculated by dividing net loss applicable to common stockholders, excluding accretion to redemption value of redeemable convertible preferred stock and changes in the fair value of the liability for warrants to purchase redeemable securities, by the pro forma weighted-average number of common shares outstanding. The unaudited pro forma weighted-average number of common shares outstanding was computed after giving effect to the assumed conversion of the redeemable convertible preferred stock into shares of common stock and the expected issuance of common stock upon the cashless exercise of warrants to purchase redeemable convertible preferred stock, as if such conversion and net exercise had occurred at the beginning of the period presented, or the date of original issuance, if later. Upon conversion of the redeemable convertible preferred stock into shares of the Company's common stock in the event of an initial public offering, the holders of the redeemable convertible preferred stock are not entitled to receive undeclared dividends.

**Segment Information**

Operating segments are defined as components of an enterprise about which separate discrete information is available for evaluation by the chief operating decision maker, or decision-making group, in deciding how to allocate resources and in assessing performance. The

**T2 Biosystems, Inc.**  
**(A Development Stage Company)**

**Notes to Financial Statements (Continued)**

**2. Summary of Significant Accounting Policies (Continued)**

Company's chief operating decision maker is the Chief Executive Officer. The Company views its operations and manages its business in one operating segment, which is the business of developing and, upon regulatory clearance, launching commercially its diagnostic products aimed at reducing mortality rates, improving patient outcomes and reducing the cost of healthcare by helping medical professionals make targeted treatment decisions earlier.

**Off-Balance Sheet Risk and Concentrations of Credit Risk**

The Company has no significant off-balance sheet risks, such as foreign exchange contracts, option contracts, or other foreign hedging arrangements. Cash and cash equivalents are financial instruments that potentially subject the Company to concentrations of credit risk. At December 31, 2012 and 2013, and March 31, 2014, substantially all of the Company's cash was deposited in accounts at one financial institution, with a significant amount invested in money market funds that are invested in short-term U.S. Treasury bills. The Company maintains its cash and cash equivalents, which at times may exceed the federally insured limits, with a large financial institution and, accordingly, the Company believes such funds are subject to minimal credit risk.

**Cash Equivalents**

Cash equivalents include all highly liquid investments maturing within 90 days from the date of purchase. Cash equivalents consist of money market funds invested in short-term U.S. Treasury bills as of December 31, 2012 and 2013, and March 31, 2014.

**Revenue Recognition**

The Company generates revenue primarily from research and development agreements with government agencies and other third parties. Revenues earned from activities performed pursuant to development agreements is reported as revenue in the statements of operations and comprehensive loss, using the proportional performance method as the work is completed, and the related costs are expensed as incurred as research and development expense.

The timing of cash received from the Company's research and development agreements generally differs from when revenue is recognized. The Company recognizes revenue in accordance with FASB ASC Topic 605, *Revenue Recognition* ("ASC 605"). Accordingly, the Company recognizes revenue when all of the following criteria have been met:

- i. Persuasive evidence of an arrangement exists
- ii. Delivery has occurred or services have been rendered
- iii. The seller's price to the buyer is fixed or determinable
- iv. Collectability is reasonably assured

Amounts received prior to satisfying the revenue recognition criteria are recorded as deferred revenue. Criterion (i) is satisfied when the Company has a written agreement or contract in place. Criterion (ii) is satisfied when the Company performs the services. Determination of criteria (iii) and

**T2 Biosystems, Inc.**  
**(A Development Stage Company)**

**Notes to Financial Statements (Continued)**

**2. Summary of Significant Accounting Policies (Continued)**

(iv) are based on management's judgments regarding whether the fee is fixed or determinable and the collectability of the fee is reasonably assured.

Revenue from fixed-fee government grants is recognized as the activities are performed in accordance with the terms of the grant.

The Company evaluates consideration given to its customers in accordance with ASC Topic 605-50, *Customer Payments and Incentives* ("ASC 605-50"). Consideration given to a customer is recorded as an expense in the statement of operations in those limited cases when the Company both receives an identifiable benefit in exchange for the consideration and the Company can reasonably estimate the fair value of the identified benefit. Otherwise, the consideration is recorded as a reduction of revenue.

**Fair Value Measurements**

The Company is required to disclose information on all assets and liabilities reported at fair value that enables an assessment of the inputs used in determining the reported fair values. ASC 820, *Fair Value Measurements and Disclosures* ("ASC 820"), establishes a hierarchy of inputs used in measuring fair value that maximizes the use of observable inputs and minimizes the use of unobservable inputs by requiring that the observable inputs be used when available.

Observable inputs are inputs that market participants would use in pricing the asset or liability based on market data obtained from sources independent of the Company. Unobservable inputs are inputs that reflect the Company's assumptions about the inputs that market participants would use in pricing the asset or liability, and are developed based on the best information available in the circumstances. The fair value hierarchy applies only to the valuation inputs used in determining the reported fair value of the investments and is not a measure of the investment credit quality. The hierarchy defines three levels of valuation inputs:

Level 1 — Quoted unadjusted prices for identical instruments in active markets.

Level 2 — Quoted prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets that are not active, and model-derived valuations in which all observable inputs and significant value drivers are observable in active markets.

Level 3 — Model derived valuations in which one or more significant inputs or significant value drivers are unobservable, including assumptions developed by the Company.

The fair value hierarchy prioritizes valuation inputs based on the observable nature of those inputs. Assets and liabilities measured at fair value are classified in their entirety based on the lowest level of input that is significant to the fair value measurement. The Company's assessment of the significance of a particular input to the fair value measurement in its entirety requires management to make judgments and consider factors specific to the asset or liability (See Note 3).

Financial instruments measured at fair value on a recurring basis include cash, money market funds, restricted cash (See Note 3) and warrants to purchase redeemable securities (See Note 10).



**T2 Biosystems, Inc.**  
**(A Development Stage Company)**

**Notes to Financial Statements (Continued)**

**2. Summary of Significant Accounting Policies (Continued)**

For certain financial instruments, including accounts payable and accrued expenses, the carrying amounts approximate their fair values as of December 31, 2012 and 2013 and March 31, 2014 because of their short-term nature. At December 31, 2013 and March 31, 2014, the carrying value of the Company's debt approximated fair value, which was determined using Level 3 inputs, including a quoted rate.

**Property and Equipment**

Property and equipment are recorded at cost and depreciated over their estimated useful lives using the straight-line method. Repairs and maintenance costs are expensed as incurred, whereas major improvements are capitalized as additions to property and equipment.

**Research and Development Costs**

Costs incurred in the research and development of the Company's product candidates are expensed as incurred. Research and development expenses consist of costs incurred in performing research and development activities and include salaries and benefits, research-related facility and overhead costs, laboratory supplies, equipment and contract services.

**Deferred IPO Issuance Costs**

Deferred IPO issuance costs, which primarily consist of direct and incremental legal and accounting fees relating to the IPO, are capitalized. The deferred IPO issuance costs will be offset against IPO proceeds upon the consummation of the offering. In the event the offering is terminated, or delayed more than 90 days, deferred offering costs will be expensed. No amounts were deferred as of December 31, 2012 and 2013. As of March 31, 2014, \$0.3 million of deferred IPO issuance costs were recorded in other assets and accrued expenses in the accompanying balance sheet.

**Impairment of Long-Lived Assets**

The Company reviews long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. During this review, the Company reevaluates the significant assumptions used in determining the original cost and estimated lives of long-lived assets. Although the assumptions may vary from asset to asset, they generally include operating results, changes in the use of the asset, cash flows and other indicators of value. Management then determines whether the remaining useful life continues to be appropriate or whether there has been an impairment of long-lived assets based primarily upon whether expected future undiscounted cash flows are sufficient to support the assets' recovery. If impairment exists, the Company would adjust the carrying value of the asset to fair value, generally determined by a discounted cash flow analysis. No impairment charges have been recorded in any of the periods presented.

**T2 Biosystems, Inc.**  
**(A Development Stage Company)**

**Notes to Financial Statements (Continued)**

**2. Summary of Significant Accounting Policies (Continued)**

**Comprehensive Loss**

Comprehensive loss is defined as the change in equity of a business enterprise during a period from transactions and other events and circumstances from non-owner sources. Comprehensive loss consists of net loss and other comprehensive loss, which includes certain changes in equity that are excluded from net loss. The Company's comprehensive loss equals reported net loss for all periods presented.

**Stock-Based Compensation**

The Company has a stock-based compensation plan which is more fully described in Note 9. The Company records stock-based compensation for options granted to employees and to members of the board of directors for their services on the board of directors, based on the grant date fair value of awards issued, and the expense is recorded on a straight-line basis over the applicable service period, which is generally four years. The Company accounts for non-employee stock-based compensation arrangements based upon the fair value of the consideration received or the equity instruments issued, whichever is more reliably measurable. The measurement date for non-employee awards is generally the date that the performance of services required for the non-employee award is complete. Stock-based compensation costs for non-employee awards is recognized as services are provided, which is generally the vesting period, on a straight-line basis.

The Company expenses restricted stock awards based on the fair value of the award on a straight-line basis over the associated service period of the award.

The Company uses the Black-Scholes-Merton option pricing model to determine the fair value of stock options. The use of the Black-Scholes-Merton option-pricing model requires management to make assumptions with respect to the expected term of the option, the expected volatility of the common stock consistent with the expected life of the option, risk-free interest rates and expected dividend yields of the common stock. The expected term was determined according to the simplified method, which is the average of the vesting tranche dates and the contractual term. Due to the lack of a public market for the trading of the Company's common stock and a lack of company-specific historical and implied volatility data, the Company based its estimate of expected volatility on the historical volatility of a group of similar companies that are publicly traded. For these analyses, companies with comparable characteristics were selected, including enterprise value and position within the industry, and with historical share price information sufficient to meet the expected life of the stock-based awards. The Company computed the historical volatility data using the daily closing prices for the selected companies' shares during the equivalent period of the calculated expected term of its stock-based awards. The risk-free interest rate is determined by reference to U.S. Treasury zero-coupon issues with remaining maturities similar to the expected term of the options. The Company has not paid, and does not anticipate paying, cash dividends on shares of common stock; therefore, the expected dividend yield is assumed to be zero. The Company is required to estimate forfeitures at the time of grant and revise those estimates in subsequent periods if actual forfeitures differ from those estimates.

**T2 Biosystems, Inc.**  
**(A Development Stage Company)**

**Notes to Financial Statements (Continued)**

**2. Summary of Significant Accounting Policies (Continued)**

**Warrants to Purchase Redeemable Securities**

The Company has issued warrants to purchase shares of the Company's series A-2 redeemable convertible preferred stock, series B redeemable convertible preferred stock, series C redeemable convertible preferred stock, and series D redeemable convertible preferred stock.

The Company accounts for warrant instruments that either conditionally or unconditionally obligate the issuer to transfer assets as liabilities regardless of the timing of the redemption feature or price, even though the underlying shares may be classified as permanent or temporary equity. Consequently, the warrants to purchase shares of series A-2 preferred stock, series B preferred stock, series C preferred stock, and series D preferred stock are accounted for as liabilities and adjusted to fair value at the end of each reporting period. The liability for warrants to purchase redeemable securities is remeasured at each balance sheet date with changes to fair value being recognized as a component of other income (expense) in the statement of operations and comprehensive loss. The Company will continue to remeasure the fair value of the liability for warrants to purchase redeemable securities at the end of each reporting period until the earlier of the exercise or expiration of the applicable warrants or until such time that the underlying redeemable convertible preferred stock is converted into common stock and reclassified to permanent equity.

**Income Taxes**

The Company provides for income taxes using the liability method. The Company provides deferred tax assets and liabilities for the expected future tax consequences of temporary differences between the Company's financial statement carrying amounts and the tax basis of assets and liabilities using enacted tax rates expected to be in effect in the years in which the differences are expected to reverse. A valuation allowance is provided to reduce the deferred tax assets to the amount that will more likely than not be realized.

The Company applies ASC 740 *Income Taxes* ("ASC 740") in accounting for uncertainty in income taxes. The Company does not have any material uncertain tax positions for which reserves would be required. The Company will recognize interest and penalties related to uncertain tax positions, if any, in income tax expense.

**Guarantees**

As permitted under Delaware law, the Company indemnifies its officers and directors for certain events or occurrences while the officer or director is, or was, serving at the Company's request in such capacity. The term of the indemnification is for the officer's or director's lifetime. The maximum potential amount of future payments the Company could be required to make is unlimited; however, the Company has directors' and officers' insurance coverage that limits its exposure and enables it to recover a portion of any future amounts paid.

The Company leases office, laboratory and manufacturing space under noncancelable operating leases. The Company has standard indemnification arrangements under the leases that require it to indemnify the landlord against all costs, expenses, fines, suits, claims, demands,

**T2 Biosystems, Inc.**  
**(A Development Stage Company)**

**Notes to Financial Statements (Continued)**

**2. Summary of Significant Accounting Policies (Continued)**

liabilities, and actions directly resulting from any breach, violation or nonperformance of any covenant or condition of the Company's leases.

As of December 31, 2013 and March 31, 2014, the Company had not experienced any material losses related to these indemnification obligations, and no material claims with respect thereto were outstanding. The Company does not expect significant claims related to these indemnification obligations and, consequently, concluded that the fair value of these obligations is negligible, and no related reserves were established.

**Net Loss Per Share**

Basic net loss per share is calculated by dividing net loss applicable to common stockholders by the weighted-average number of shares outstanding during the period, without consideration for common stock equivalents. Diluted net loss per share is calculated by adjusting the weighted-average number of shares outstanding for the dilutive effect of common stock equivalents outstanding for the period, determined using the treasury-stock method. For purposes of the diluted net loss per share calculation, redeemable convertible preferred stock, warrants to purchase redeemable convertible preferred stock, stock options and unvested restricted stock are considered to be common stock equivalents, but have been excluded from the calculation of diluted net loss per share, as their effect, including the related impact to the numerator of the fair value adjustment of the warrant and the impact to the denominator of the warrant shares, would be anti-dilutive for all periods presented. Therefore, basic and diluted net loss per share applicable to common stockholders were the same for all periods presented.

**Recently Adopted Accounting Pronouncements**

From time to time, new accounting pronouncements are issued by the FASB or other standard setting bodies and adopted by the Company as of the specified effective date. Unless otherwise discussed, the Company believes that the impact of recently issued standards that are not yet effective will not have a material impact on its financial position or results of operations upon adoption.

**3. Fair Value Measurements**

The Company measures the following financial assets and liabilities at fair value on a recurring basis. Except for the valuation methodology used to measure the liability for warrants to purchase redeemable securities (see Note 10), during the periods presented, the Company has not changed the manner in which it values assets and liabilities that are measured at fair value using Level 3 inputs. There were no transfers between levels of the fair value hierarchy during any of the periods presented. The following tables set forth the Company's financial assets and liabilities carried at fair

**T2 Biosystems, Inc.**  
**(A Development Stage Company)**

**Notes to Financial Statements (Continued)**

**3. Fair Value Measurements (Continued)**

value categorized using the lowest level of input applicable to each financial instrument as of December 31, 2012 and 2013 and March 31, 2014 (in thousands):

	Balance at December 31, 2012	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
<b>Assets:</b>				
Cash	\$ 398	\$ 398	\$ —	\$ —
Money market funds	9,311	9,311	—	—
Restricted cash	420	420	—	—
	<u>\$ 10,129</u>	<u>\$ 10,129</u>	<u>\$ —</u>	<u>\$ —</u>
<b>Liabilities:</b>				
Warrants to purchase redeemable securities	\$ 695	\$ —	\$ —	\$ 695
	<u>\$ 695</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 695</u>
	Balance at December 31, 2013	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
<b>Assets:</b>				
Cash	\$ 2,631	\$ 2,631	\$ —	\$ —
Money market funds	27,567	27,567	—	—
Restricted cash	340	340	—	—
	<u>\$ 30,538</u>	<u>\$ 30,538</u>	<u>\$ —</u>	<u>\$ —</u>
<b>Liabilities:</b>				
Warrants to purchase redeemable securities	\$ 1,225	\$ —	\$ —	\$ 1,225
	<u>\$ 1,225</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 1,225</u>

**T2 Biosystems, Inc.**  
**(A Development Stage Company)**

**Notes to Financial Statements (Continued)**

**3. Fair Value Measurements (Continued)**

	Balance at March 31, 2014	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
<b>Assets:</b>				
Cash	\$ 2,130	\$ 2,130	\$ —	\$ —
Money market funds	21,568	21,568	—	—
Restricted cash	340	340	—	—
	<u>\$ 24,038</u>	<u>\$ 24,038</u>	<u>\$ —</u>	<u>\$ —</u>
<b>Liabilities:</b>				
Warrants to purchase redeemable securities	\$ 1,152	\$ —	\$ —	\$ 1,152
	<u>\$ 1,152</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 1,152</u>

The following table sets forth a summary of changes in the fair value of the Company's preferred stock warrant liability (See Note 10), which represents a recurring measurement that is classified within Level 3 of the fair value hierarchy, wherein fair value is estimated using significant unobservable inputs (in thousands):

	Year Ended December 31,		Three Months Ended March 31,	
	2012	2013	2013	2014
Beginning balance	\$ 763	\$ 695	\$ 695	\$ 1,225
Additional warrants issued	64	—	—	—
Change in fair value, recorded as a component of other income (expense)	(132)	530	(110)	(73)
Ending balance	<u>\$ 695</u>	<u>\$ 1,225</u>	<u>\$ 585</u>	<u>\$ 1,152</u>

**4. Restricted Cash**

The Company is required to maintain a security deposit for its operating lease agreement for the duration of the lease agreement and for its credit cards as long as they are in place. At December 31, 2012 and 2013 and March 31, 2014, the Company had certificates of deposit for \$420,000, \$340,000 and \$340,000, respectively, which represented collateral as security deposits for its operating lease agreement for its facility and its credit card. In accordance with the operating lease agreement, the Company reduced its security deposit by \$80,000 to \$320,000 on January 14, 2013.

**T2 Biosystems, Inc.**  
**(A Development Stage Company)**

**Notes to Financial Statements (Continued)**

**5. Supplemental Balance Sheet Information**

**Property and Equipment**

Property and equipment consists of the following (in thousands):

	<u>Estimated Useful Life (Years)</u>	<u>December 31,</u>		<u>March 31,</u>
		<u>2012</u>	<u>2013</u>	<u>2014</u>
Office and computer equipment	3	\$ 300	\$ 302	\$ 303
Software	3	186	186	199
Laboratory equipment	5	2,440	2,770	2,879
Furniture	5 - 7	171	179	179
Leasehold improvements	Lesser of useful life or lease term	175	332	332
Construction in progress	n/a	—	—	140
		<u>3,272</u>	<u>3,769</u>	<u>4,032</u>
Less accumulated depreciation and amortization		<u>(2,077)</u>	<u>(2,651)</u>	<u>(2,795)</u>
Property and equipment, net		<u>\$ 1,195</u>	<u>\$ 1,118</u>	<u>\$ 1,237</u>

Construction in progress is primarily comprised of capitalized internal use software costs related to projects that have not been placed in service.

Depreciation and amortization expense of \$571,000, \$584,000, \$138,000, \$144,000 and \$3,180,000 was charged to operations for the years ended December 31, 2012 and 2013, the three months ended March 31, 2013 and 2014 and for the period from April 27, 2006 (inception) to March 31, 2014, respectively.

**Accrued Expenses**

Accrued expenses consist of the following (in thousands):

	<u>December 31,</u>		<u>March 31,</u>
	<u>2012</u>	<u>2013</u>	<u>2014</u>
Accrued payroll and compensation	\$ 384	\$ 496	\$ 388
Accrued professional services	120	101	517
Accrued research and development expenses	101	422	916
Other accrued expenses	128	300	551
Total accrued expenses	<u>\$ 733</u>	<u>\$ 1,319</u>	<u>\$ 2,372</u>

**T2 Biosystems, Inc.**  
**(A Development Stage Company)**

**Notes to Financial Statements (Continued)**

**6. Debt**

**Secured Notes Payable**

On August 30, 2007, the Company entered into a loan and security agreement ("Note Agreement 1") with a lender to borrow up to \$2,000,000 for the purchase of laboratory equipment and office equipment through August 30, 2008. On June 26, 2009, the Company entered into a loan modification agreement with the lender which provided additional borrowing of up to \$1,500,000 through June 25, 2010.

The amounts borrowed are collateralized by the assets of the Company, bear interest between 5.5% and 10.3%, and are payable in 36 or 48 monthly installments. Note Agreement 1 requires a final payment of 1.6% to 3.75% of the aggregate original principal amount of each borrowing. This final payment is recorded as deferred financing cost and amortized to interest expense over the term of the borrowing. No amounts remain outstanding under Note Agreement 1 as of December 31, 2013.

On May 9, 2011, the Company entered into a promissory agreement ("Note Agreement 2") with a separate lender to borrow up to \$1,688,000 for the purchase of laboratory equipment and office equipment through December 2013. The amounts borrowed are collateralized by the associated equipment and bear interest at 6.5%. The Company paid interest only on the borrowings through December 2013 and will make equal monthly payments of principal and interest through the maturity date of May 2018. During 2012 the Company borrowed \$451,000 under the agreement.

The Note Agreement 2 includes financial covenants that require the Company to maintain a minimum cash balance of \$300,000.

On June 25, 2012, the Company entered into a loan and security agreement ("Note Agreement 3") with the same lender as Note Agreement 1 to borrow up to \$4,500,000 for operations through December 31, 2012. The amounts borrowed are collateralized by the assets of the Company and bear interest at 6.25%. The Company paid interest only on the borrowings through June 30, 2013 and then makes 36 equal month payments of principal plus monthly payments of accrued interest. During 2012, the Company borrowed \$4,500,000 under the agreement. The debt can be prepaid at the option of the Company, and is subject to a prepayment premium of 2% if it is repaid prior the first anniversary of the borrowing date, and 1% if the debt is prepaid prior to the second anniversary of the borrowing date.

In addition, Note Agreement 2 contains a subjective acceleration clause whereby an event of default and immediate acceleration of the borrowing under the security and loan agreement occurs if there is a material adverse change in the business, operations, or condition (financial or otherwise) of the Company or a material impairment of the prospect of repayment of any portion of the obligations. The lender has not exercised its right under this clause, as there have been no such events. The Company believes that the likelihood of the lender exercising this right is remote.

Interest expense for the years ended December 31, 2012 and 2013, was \$156,000 and \$410,000, respectively, and for the three months ended March 31, 2013 and 2014 was \$106,000 and \$87,000, respectively, and was \$1,181,000 for the cumulative period from April 27, 2006 (inception) to March 31, 2014.



**T2 Biosystems, Inc.**  
**(A Development Stage Company)**

**Notes to Financial Statements (Continued)**

**6. Debt (Continued)**

During 2007, the Company issued a fully vested warrant to purchase 13,769 shares of the Company's series A-2 preferred stock in connection with Note Agreement 1. In 2009, the Company issued a fully vested warrant to purchase 9,036 shares of the Company's series B preferred stock in connection with the modification of Note Agreement 1. In 2011, the Company issued a fully vested warrant to purchase 30,000 shares of the Company's series C preferred stock in connection with Note Agreement 2. In 2012, the Company issued a fully vested warrant to purchase 19,780 shares of the Company's series D preferred stock in connection with Note Agreement 3. The fair market value of the warrants at issuance, in the aggregate amount of \$208,000, was recorded as a debt discount and is being amortized as additional interest expense over the term of the notes. The Company recognized \$25,000, \$29,000, \$7,000, and \$7,000 of additional interest expense for the years ended December 31, 2012 and 2013 and for the three months ended March 31, 2013 and 2014, respectively, and \$121,000 for the cumulative period from April 27, 2006 (inception) to March 31, 2014, associated with the amortization of the debt discount related to the warrants issued.

Future principal payments on the notes payable as of December 31, 2013 are as follows (in thousands):

Year ended December 31,	
2014	\$ 1,788
2015	1,808
2016	1,079
2017	351
2018	126
Total debt payments	5,152
Less current portion	(1,759)
Less debt discount	(94)
Notes payable, net of current portion	<u>\$ 3,299</u>

**T2 Biosystems, Inc.**  
**(A Development Stage Company)**

**Notes to Financial Statements (Continued)**

**7. Redeemable Convertible Preferred Stock**

The Company's Preferred Stock consisted of the following (in thousands, except share and per share data):

	December 31,		March 31, 2014	
	2012	2013	Actual	Pro Forma (unaudited)
Series A-1 redeemable convertible preferred stock \$0.001 par value; 282,849 shares authorized, issued, and outstanding at December 31, 2012 and 2013 and March 31, 2014 (unaudited); no shares issued and outstanding pro forma (unaudited); (liquidation preference of \$877 at December 31, 2013 and \$888 at March 31, 2014)	\$ 830	\$ 874	\$ 885	\$ —
Series A-2 redeemable convertible preferred stock \$0.001 par value; 1,717,728 shares authorized; 1,703,959 shares issued and outstanding at December 31, 2012 and 2013 and March 31, 2014 (unaudited); no shares issued and outstanding pro forma (unaudited); (liquidation preference of \$7,744 at December 31, 2013 and \$7,843 at March 31, 2014)	7,322	7,724	7,824	—
Series B redeemable convertible preferred stock \$0.001 par value; 3,523,765 shares authorized; 3,249,877 shares issued and outstanding at December 31, 2012 and 2013 and March 31, 2014 (unaudited); no shares issued and outstanding pro forma (unaudited); (liquidation preference of \$15,485 at December 31, 2013 and \$15,701 at March 31, 2014)	14,594	15,464	15,681	—
Series C redeemable convertible preferred stock \$0.001 par value; 4,085,125 shares authorized; 4,055,125 shares issued and outstanding at December 31, 2012 and 2013 and March 31, 2014 (unaudited); no shares issued and outstanding pro forma (unaudited); (liquidation preference of \$19,166 at December 31, 2013 and \$19,463 at March 31, 2014)	17,895	19,100	19,401	—
Series D redeemable convertible preferred stock \$0.001 par value; 5,074,725 shares authorized; 5,054,945 shares issued and outstanding at December 31, 2012 and 2013 and March 31, 2014 (unaudited); no shares issued and outstanding pro forma (unaudited); (liquidation preference of \$27,441 at December 31, 2013 and \$27,901 at March 31, 2014)	25,496	27,375	27,822	—
Series E redeemable convertible preferred stock \$0.001 par value; no shares authorized at December 31, 2012 and 6,960,967 shares authorized at December 31, 2013 and March 31, 2014; no shares issued and outstanding at December 31, 2012 and 6,930,967 shares issued and outstanding at December 31, 2013 and March 31, 2014 (unaudited); no shares issued and outstanding pro forma (unaudited); (liquidation preference of \$42,490 at December 31, 2013 and \$43,290 at March 31, 2014)	—	42,294	43,106	—
<b>Total redeemable convertible preferred stock</b>	<b>\$ 66,137</b>	<b>\$ 112,831</b>	<b>\$ 114,719</b>	<b>\$ —</b>

As of December 31, 2013 and March 31, 2014, the authorized capital stock of the Company included 21,645,159 shares of preferred stock, \$0.001 par value, of which 282,849 shares are

**T2 Biosystems, Inc.**  
**(A Development Stage Company)**

**Notes to Financial Statements (Continued)**

**7. Redeemable Convertible Preferred Stock (Continued)**

designated series A-1 preferred stock, 1,717,728 shares are designated series A-2 preferred stock, 3,523,765 are designated series B preferred stock, 4,085,125 shares are designated series C preferred stock, 5,074,725 shares are designated series D preferred stock and 6,960,967 shares are designated series E preferred stock (collectively, "Preferred Stock").

On March 22, 2013, the Company sold and issued 6,930,967 shares of series E preferred stock at \$5.7712 per share to investors for total consideration of \$40,000,000.

On August 3, 2011, the Company issued 5,054,945 shares of series D preferred stock at \$4.55 per share to investors for total consideration of \$23,000,000.

In May 2010, the Company issued 4,055,125 shares of series C preferred stock at \$3.6608 per share to investors for total consideration of \$14,845,000.

In July 2008, the Company issued 3,159,603 shares of series B preferred stock at \$3.3232 per share to investors for total consideration of \$10,500,000. The total consideration included the conversion of \$505,000 of convertible promissory notes ("Convertible Notes") with a face value of \$500,000. In accordance with the terms of the Convertible Notes, 151,964 shares of series B preferred stock were issued to note holders upon the conversion of the Convertible Notes. In September 2008, in connection with a development agreement (see Note 12), the Company issued an additional 90,274 shares of series B preferred stock at \$3.3232 per share for total consideration of \$300,000.

In December 2006, the Company issued 1,703,959 shares of series A-2 preferred stock at \$2.905 per share for total consideration of \$4,950,000.

In July 2006, the Company issued 282,849 shares of series A-1 preferred stock at \$1.9445 per share for total consideration of \$550,000.

The Company performs assessments of all terms and features of its redeemable convertible preferred stock in order to identify any potential embedded features that would require bifurcation or any beneficial conversion features. As part of this analysis, the Company assessed the economic characteristics and risks of its Preferred Stock, including conversion, liquidation and redemption features, as well as dividend and voting rights. Based on the Company's determination that each series of its Preferred Stock is an "equity host," the Company determined that the conversion features of the Preferred Stock are clearly and closely related to the equity host, and such conversion features do not require bifurcation as a derivative liability. In addition, the embedded put options related to the liquidation and redemption features do not meet the definition of a derivative and also do not require bifurcation as a derivative liability.

The Company accounts for potential beneficial conversion features under ASC 470-20, *Debt with Conversion and other Options*. At the time of each of the issuances of Preferred Stock, the common stock into which the Preferred Stock is convertible had a fair value less than the effective conversion price of the Preferred Stock and, accordingly, there was no intrinsic value on the respective commitment dates.

The rights, preferences, and privileges of the preferred stock are as follows:

**T2 Biosystems, Inc.**  
**(A Development Stage Company)**

**Notes to Financial Statements (Continued)**

**7. Redeemable Convertible Preferred Stock (Continued)**

**Voting**

The holders of the Preferred Stock are entitled to vote, together with the holders of common stock, on all matters submitted to stockholders for a vote, except with respect to matters on which Delaware General Corporation Law requires that a vote will be by a separate class. Each preferred stockholder is entitled to the number of votes equal to the number of shares of common stock into which each share of Preferred Stock is convertible at the time of such vote.

A majority vote of the holders of Preferred Stock is required in order to amend the certificate of incorporation and the bylaws, create or authorize additional shares of Preferred Stock, effect a sale, liquidation or merger of the Company, or effect an acquisition.

A majority vote of the holders of Preferred Stock or approval of the board of directors, including the affirmative vote of the majority of board members designated by the holders of Preferred Stock, is required in order to incur debt, create a new plan for the grant of stock options or issuance of restricted stock, increase or decrease the authorized number of board members, pay or declare any dividends (except dividends payable solely in shares of common stock) or repurchase or redeem any capital stock (except redemptions of Preferred Stock or certain repurchases of common stock).

For each series of Preferred Stock, a majority vote (or, in the case of series A and series B, a 66% vote, or, in the case of the series C, a 75% vote) of the holders of that series of Preferred Stock is required to adversely amend the rights of that series of Preferred Stock.

**Dividends**

Dividends accrue on Preferred Stock from the date of issuance at a rate of 8% per annum per share. Dividends will accrue from day to day, whether or not earned or declared, and shall be cumulative and non-compounding.

**Liquidation Preference**

In the event of any liquidation, dissolution or winding up of the affairs of the Company, the holders of the then-outstanding Preferred Stock shall receive on a pari passu basis, before any payment shall be made to the holders of common stock, the greater of (1) \$1.9445 per share for series A-1 preferred stock, \$2.905 per share for series A-2 preferred stock, \$3.3232 per share for series B preferred stock, \$3.6608 per share for series C preferred stock, \$4.55 per share for series D preferred stock, and \$5.7712 per share for series E preferred stock, plus all unpaid accrued dividends, or (2) such amount per share of preferred stock payable as if converted into common stock. If the assets or surplus funds to be distributed to the holders of the Preferred Stock are insufficient to permit the payment to such holders of their full preferential amount, the assets and surplus funds legally available for distribution shall be distributed ratably among the holders of the Preferred Stock in proportion to the full preferential amount that each holder is otherwise entitled to receive. After the payment of any preferential amount to preferred stockholders, any remaining assets of the Company shall be distributed ratably among the holders of common stock.

**T2 Biosystems, Inc.**  
**(A Development Stage Company)**

**Notes to Financial Statements (Continued)**

**7. Redeemable Convertible Preferred Stock (Continued)**

**Conversion**

Each share of Preferred Stock, at the option of the holder, is convertible into a number of fully paid shares of common stock as determined by dividing \$1.9445 for series A-1 preferred stock, \$2.905 for series A-2 preferred stock, \$3.3232 for series B preferred stock, \$3.6608 for series C preferred stock, \$4.55 for series D preferred stock and \$5.7712 for series E preferred stock by the conversion price in effect at the time. The initial conversion prices of series A-1, series A-2, series B, series C, series D, and series E preferred stock are \$1.9445, \$2.905, \$3.3232, \$3.6608, \$4.55 and \$5.7712 per share, respectively, and are subject to adjustment in accordance with antidilution provisions contained in the Company's articles of incorporation. Conversion is automatic immediately upon the closing of a firm commitment underwritten public offering in which the public offering price equals or exceeds \$12.4211 per share and the gross proceeds are not less than \$40,000,000, or upon the written consent of the holders of a majority of the then-outstanding shares of Preferred Stock.

**Redemption**

Commencing on March 22, 2018, the holders of at least a majority of the outstanding shares of Preferred Stock may require the Company to redeem one-third of the Preferred Stock within 60 days of the redemption election, and on each of the first and second anniversaries thereof, at \$1.9445 per share for series A-1 preferred stock, \$2.905 per share for series A-2 preferred stock, \$3.3232 per share for series B preferred stock, \$3.6608 per share for series C preferred stock, \$4.55 per share for series D preferred stock and \$5.7712 for series E preferred stock, plus accrued but unpaid dividends. The Company is accreting the shares to the redemption values over the period from issuance to the redemption date. The accretion amounts are recorded as an increase to the carrying value of the Preferred Stock with a corresponding charge to additional paid-in capital or deficit accumulated during the development stage, which amounted to \$4,412,000 and \$6,908,000 for the years ended December 31, 2012 and 2013, respectively, \$1,176,000 and \$1,906,000 for the three months ended March 31, 2013 and 2014, respectively, and \$21,307,000 for the period from April 27, 2006 (inception) to March 31, 2014. The annual accretion related to the Preferred Stock is expected to be \$7,624,000 per year during the years ending December 31, 2014, 2015, 2016 and 2017, and \$1,692,000 for the year ending December 31, 2018.

As the preferred stock may become redeemable upon an event that is outside of the control of the Company, the Preferred Stock has been classified outside of permanent equity.

**8. Stockholders' (Deficit) Equity**

**Common Stock**

Each share of common stock is entitled to one vote. The holders of common stock are also entitled to receive dividends whenever funds are legally available and when declared by the board of directors, subject to the prior rights of holders of all classes of stock outstanding.

**T2 Biosystems, Inc.**  
**(A Development Stage Company)**

**Notes to Financial Statements (Continued)**

**8. Stockholders' (Deficit) Equity (Continued)**

The Company has reserved the following shares of common stock as of the periods presented:

	<b>December 31,</b>		<b>March 31,</b>
	<b>2012</b>	<b>2013</b>	<b>2014</b>
Conversion of Series A-1 preferred stock	282,849	282,849	282,849
Conversion of Series A-2 preferred stock	1,703,959	1,703,959	1,703,959
Conversion of Series B preferred stock	3,249,877	3,249,877	3,249,877
Conversion of Series C preferred stock	4,055,125	4,055,125	4,055,125
Conversion of Series D preferred stock	5,054,945	5,054,945	5,054,945
Conversion of Series E preferred stock	—	6,930,967	6,930,967
Warrants to purchase redeemable convertible preferred stock	250,727	250,727	250,727
Options to purchase common stock	2,378,501	3,852,257	3,880,504
Shares available for future issuance under stock incentive plan	548,203	357,069	328,822
	<u>17,524,186</u>	<u>25,737,775</u>	<u>25,737,775</u>

**9. Stock-Based Compensation**

**Stock Incentive Plan**

The Company's 2006 Stock Option Plan (the "Plan") provides for the issuance of shares of common stock in the form of incentive stock options, non-qualified stock options, awards of stock and direct stock purchase opportunities to directors, officers, employees and consultants of the Company. Generally, stock options are granted with exercise prices equal to or greater than the fair value of the common stock as determined by the board of directors, expire no later than 10 years from the date of grant, and vest over various periods not exceeding 4 years.

The board of directors has approved increases in the number of shares that may be issued under the Plan as follows:

<b>Date</b>	<b>Additional Shares</b>	<b>Total Shares</b>
January 2008	266,100	610,334
August 2008	500,000	1,110,334
May 2010	750,000	1,860,334
April 2011	400,000	2,260,334
August 2011	1,079,024	3,339,358
March 2013	1,367,532	4,706,890

As of December 31, 2013 and March 31, 2014, 357,069 and 328,822 shares, respectively, were available for future grant under the Plan.

**T2 Biosystems, Inc.**  
**(A Development Stage Company)**

**Notes to Financial Statements (Continued)**

**9. Stock-Based Compensation (Continued)**

**Stock Options**

During the years ended December 31, 2012 and 2013, the three months ended March 31, 2013 and 2014 and for the period from April 27, 2006 (inception) to March 31, 2014, the Company granted options with an aggregate fair value of \$702,000, \$1,991,000, \$38,000, \$432,000 and \$4,529,000, respectively, which are being amortized into compensation expense over the vesting period of the options as the services are being provided. The following is a summary of option activity under the Plan (in thousands, except share and per share amounts):

	Number of Shares	Weighted-Average Exercise Price Per Share	Weighted-Average Remaining Contractual Term (In years)	Aggregate Intrinsic Value
Outstanding at December 31, 2012	2,378,501	\$ 1.15	7.96	\$ 505
Granted	1,821,099	1.87		
Exercised	(84,910)	0.64		71
Cancelled	(262,433)	1.34		
Outstanding at December 31, 2013	3,852,257	1.49	8.23	11,510
Granted	128,255	1.89		
Cancelled	(100,008)	1.37		
Outstanding at March 31, 2014	<u>3,880,504</u>	1.51	8.06	18,555
Exercisable at December 31, 2013	<u>1,530,134</u>	1.09	6.70	5,216
Vested or expected to vest at December 31, 2013	<u>3,436,934</u>	1.45	8.06	10,427
Exercisable at March 31, 2014	<u>1,641,933</u>	1.12	6.60	8,482
Vested or expected to vest at March 31, 2014	<u>3,446,506</u>	1.45	7.88	16,643

The weighted-average fair values of options granted in the years ended December 31, 2012 and 2013 and in the three month periods ending March 31, 2013 and 2014 were \$0.85, \$1.09,

**T2 Biosystems, Inc.**  
**(A Development Stage Company)**

**Notes to Financial Statements (Continued)**

**9. Stock-Based Compensation (Continued)**

\$0.77 and \$3.37 per share, respectively, and were calculated using the following estimated assumptions:

	Year Ended December 31,		Three Months Ended March 31,	
	2012	2013	2013	2014
Weighted-average risk-free interest rate	1.35%	1.68%	1.02%	2.04%
Expected dividend yield	0.00%	0.00%	0.00%	0.00%
Expected volatility	64%	63%	64%	62%
Expected terms	6.25 - 10 years	5.77 - 6.08 years	6.08 years	6.02 - 6.08 years

The total fair values of stock options that vested during the years ended December 31, 2012 and 2013 and during the three months ended March 31, 2013 and 2014 were \$302,000, \$476,000, \$219,000 and \$137,000, respectively, and \$1,355,000 for the cumulative period from April 27, 2006 (inception) to March 31, 2014.

**Restricted Stock**

In May 2006, the Company authorized the sale of 1,800,000 shares of restricted common stock to its six founders for \$0.01 per share, for total proceeds of \$18,000, which represented the fair market value of the Company's common stock as determined by management and the board of directors on the date of issuance. The sale agreements are dated June 25, 2006. These awards of restricted common stock were made outside of the 2006 Stock Option Plan. In the event of termination of the founders' relationship with the Company, the Company has the right to repurchase any unvested shares at their original purchase price. On July 25, 2006, 450,000, or 25% of the shares, were immediately vested. The remaining 75% of the shares vested over the next 36 calendar months and the Company's right to repurchase the shares lapsed at a rate of 2.777% per calendar month.

In March 2008, the Company issued 289,098 shares of restricted stock at \$0.28 per share to an executive of the Company for a total purchase price of \$81,000. The shares vested over a four-year period.

At December 31, 2013, all restricted shares were vested and no longer subject to repurchase and are considered outstanding on the Company's statement of redeemable convertible preferred stock and stockholders' (deficit) equity.



**T2 Biosystems, Inc.**  
**(A Development Stage Company)**

**Notes to Financial Statements (Continued)**

**9. Stock-Based Compensation (Continued)**

**Stock-Based Compensation Expense**

The following table summarizes the stock-based compensation expense for stock options granted and restricted stock issued to employees and nonemployees that was recorded in the Company's results of operations for the years ended December 31, 2012 and 2013, and for the period from April 27, 2006 (inception) to December 31, 2013 (in thousands):

	Year Ended December 31,		Three Months Ended March 31,		Period From April 27, 2006 (Inception) to March 31, 2014
	2012	2013	2013	2014	
Research and development	\$ 160	\$ 169	\$ 46	\$ 56	\$ 700
Selling, general and administrative	243	409	76	183	1,450
<b>Total stock-based compensation expense</b>	<b>\$ 403</b>	<b>\$ 578</b>	<b>\$ 122</b>	<b>\$ 239</b>	<b>\$ 2,150</b>

As of December 31, 2013 and March 31, 2014, there was \$2,247,000 and \$2,447,000 of total unrecognized compensation cost related to non-vested stock options granted under the 2006 Stock Option Plan. Total unrecognized compensation cost will be adjusted for future changes in the estimated forfeiture rate. The Company expects to recognize that cost over a remaining weighted-average period of 3.06 years and 3.03 years as of December 31, 2013 and March 31, 2014, respectively.

**10. Warrants**

Below is a summary of warrants outstanding as of the dates presented:

	December 31,		March 31,
	2012	2013	2014
Warrants to purchase Series A-2 preferred stock	13,769	13,769	13,769
Warrants to purchase Series B preferred stock	187,178	187,178	187,178
Warrants to purchase Series C preferred stock	30,000	30,000	30,000
Warrants to purchase Series D preferred stock	19,780	19,780	19,780
<b>Total warrants to purchase preferred stock</b>	<b>250,727</b>	<b>250,727</b>	<b>250,727</b>

In August 2007, the Company issued warrants to purchase 13,769 shares of series A-2 preferred stock to a lender at an exercise price of \$2.905 per share. At issuance, the warrants had a fair value of \$2.3238 per share. The warrants were issued in connection with the Company's secured notes payable (See Note 6). The warrants are exercisable through 2017.

In September 2008, the Company issued warrants to purchase 174,530 shares of series B preferred stock at an exercise price of \$3.3232 and 3,612 shares of series B preferred stock at an exercise price of \$4.65 in connection with a development agreement (See Note 12). At issuance,

**T2 Biosystems, Inc.**  
**(A Development Stage Company)**

**Notes to Financial Statements (Continued)**

**10. Warrants (Continued)**

the warrants for 174,530 and 3,612 shares had a fair value of \$2.3219 and \$2.1348 per share, respectively. The warrants for 174,530 shares become exercisable on a pro rata basis as payments are received on Phase I of the development agreement. The warrants for 3,612 shares become exercisable on a pro rata basis as payments are received on Phase II of the development agreement. The warrants are exercisable through 2015. Any unexercised warrants will expire upon an initial public offering.

In June 2009, the Company issued warrants to purchase 9,036 shares of series B preferred stock to a lender at an exercise price of \$3.3232 per share. At issuance, the warrants had a fair value of \$2.6695 per share. The warrants were issued in connection with the Company's loan modification agreement related to Note Agreement 1 (See Note 6). The warrants are exercisable through 2019.

In May 2011, the Company issued warrants to purchase 30,000 shares of series C preferred stock to a lender at an exercise price of \$3.6608 per share. At issuance, the warrants had a fair value of \$2.9273 per share. The warrants were issued in connection with the Company's promissory note agreement related to Note Agreement 2 (See Note 6). The warrants are exercisable through 2021. The warrants automatically convert into shares of common stock upon an initial public offering in accordance with a net exercise formula.

In June 2012, the Company issued warrants to purchase 19,780 shares of series D preferred stock to a lender at an exercise price of \$4.55 per share. At issuance, the warrants had a fair value of \$3.2451 per share. The warrants were issued in connection with the Company's promissory note agreement related to Note Agreement 3 (See Note 6). The warrants are exercisable through 2022.

No warrants have been exercised as of December 31, 2013 and March 31, 2014.

Below is a summary of the terms and accounting treatment for the warrants outstanding:

	Shares	Weighted-Average Exercise Price Per Share	Balance Sheet Classification		
			December 31,		March 31,
			2012	2013	2014
Warrants to purchase Series A-2 preferred stock	13,769	\$ 2.91	Liability	Liability	Liability
Warrants to purchase Series B preferred stock	187,178	3.76	Liability	Liability	Liability
Warrants to purchase Series C preferred stock	30,000	3.66	Liability	Liability	Liability
Warrants to purchase Series D preferred stock	19,780	4.55	Liability	Liability	Liability
	250,727				

The Company determined the fair value of the warrants to purchase redeemable convertible preferred stock based on input from management and the board of directors, which utilized an independent valuation of the Company's enterprise value, determined utilizing an analytical valuation model. Each valuation methodology includes estimates and assumptions that require the Company's judgment. These estimates and assumptions include a number of objective and subjective factors, including external market conditions affecting the *in vitro* diagnostics industry sector, the prices at which the Company sold shares of preferred stock, the superior rights and

**T2 Biosystems, Inc.**  
**(A Development Stage Company)**

**Notes to Financial Statements (Continued)**

**10. Warrants (Continued)**

preferences of securities at the time and the likelihood of achieving a liquidity event, such as an initial public offering or a sale of the Company. Any changes in the assumptions used in the valuation could materially affect the financial results of the Company. Due to the nature of these inputs, the valuation of the warrants is considered a Level 3 measurement.

The analytical valuation model used for the years ended December 31, 2012 and 2013 and the three months ended March 31, 2014 are as follows:

	<b>Analytical Valuation Model Used</b>
December 31, 2012	Option Pricing Model (OPM)
December 31, 2013	Hybrid approach based on an OPM method and the Probability Weighted Expected Return Method (PWERM)
March 31, 2014	Hybrid approach based on an OPM method and the PWERM

**11. Net Loss Per Share**

The following table presents the calculation of basic and diluted net loss per share applicable to common stockholders (in thousands, except share and per share data):

	<b>Year Ended December 31,</b>		<b>Three Months Ended March 31,</b>		<b>Period From April 27, 2006 (Inception) to March 31, 2014</b>
	<b>2012</b>	<b>2013</b>	<b>2013</b>	<b>2014</b>	<b>2014</b>
<b>Numerator:</b>					
Net loss	\$ (14,455)	\$ (20,610)	\$ (4,580)	\$ (6,920)	\$ (79,181)
Accretion of redeemable convertible preferred stock to redemption value	(4,412)	(6,908)	(1,176)	(1,906)	(21,307)
Net loss applicable to common stockholders	<u>\$ (18,867)</u>	<u>\$ (27,518)</u>	<u>\$ (5,756)</u>	<u>\$ (8,826)</u>	<u>\$ (100,488)</u>
<b>Denominator:</b>					
Weighted-average number of common shares outstanding — basic and diluted	<u>2,314,832</u>	<u>2,372,542</u>	<u>2,346,601</u>	<u>2,400,422</u>	<u>1,714,171</u>
Net loss per share applicable to common stockholders — basic and diluted	<u>\$ (8.15)</u>	<u>\$ (11.60)</u>	<u>\$ (2.45)</u>	<u>\$ (3.68)</u>	<u>\$ (58.62)</u>

**T2 Biosystems, Inc.**  
**(A Development Stage Company)**

**Notes to Financial Statements (Continued)**

**11. Net Loss Per Share (Continued)**

The following shares were excluded from the calculation of diluted net loss per share applicable to common stockholders, prior to the application of the treasury stock method, because their effect would have been anti-dilutive for the periods presented:

	Year Ended December 31,		Three Months Ended March 31,		Period from April 27, 2006 (Inception) to March 31, 2014
	2012	2013	2013	2014	2014
Redeemable convertible preferred stock	14,346,755	21,277,722	21,277,722	21,277,722	21,277,722
Options to purchase common shares	2,378,501	3,852,257	2,363,001	3,880,504	3,880,504
Warrants to purchase redeemable convertible preferred stock	250,727	250,727	250,727	250,727	250,727
Total	<u>16,975,983</u>	<u>25,380,706</u>	<u>23,891,450</u>	<u>25,408,953</u>	<u>25,408,953</u>

**T2 Biosystems, Inc.**  
**(A Development Stage Company)**

**Notes to Financial Statements (Continued)**

**11. Net Loss Per Share (Continued)**

The following table presents the calculation of basic and diluted pro forma net loss per share applicable to common stockholders (in thousands, except share and per share data):

	<b>Year Ended December 31, 2013</b>	<b>Three Months Ended March 31, 2014</b>
	<b>(unaudited)</b>	<b>(unaudited)</b>
<b>Numerator:</b>		
Net loss applicable to common stockholders	\$	\$
Accretion of redeemable convertible preferred stock to redemption value		
Change in fair value of liability for warrants to purchase redeemable securities		
Pro forma net loss applicable to common stockholders (unaudited)	<u>\$</u>	<u>\$</u>
<b>Denominator:</b>		
Weighted-average number of common shares used in computing net loss per share applicable to common stockholders — basic and diluted		
Pro forma adjustment to reflect assumed conversion of redeemable convertible preferred stock to occur upon consummation of initial public offering (unaudited)		
Pro forma adjustment to reflect assumed net exercise of warrants to purchase redeemable convertible preferred stock to occur upon consummation of initial public offering (unaudited)		
Pro forma weighted-average number of common shares used in computing pro forma net loss per share applicable to common stockholders — basic and diluted (unaudited)		
Pro forma net loss per share applicable to common stockholders — basic and diluted (unaudited)	<u>\$</u>	<u>\$</u>

**T2 Biosystems, Inc.**  
**(A Development Stage Company)**

**Notes to Financial Statements (Continued)**

**12. Development Agreement**

In September 2008, the Company entered into a development agreement with a third party, whereby the third party: (i) invested \$300,000 through the purchase of 90,274 shares of series B preferred stock, (ii) received a warrant for the purchase of up to 178,142 shares of series B preferred stock at exercise prices of \$3.3232 and \$4.65, and (iii) agreed to pay the Company up to \$2,500,000 for the development of certain products as defined in the development agreement. The development work under the development agreement included two potential phases, with Phase 2 dependent to occur only on the election of the third party. Phase I was initiated on October 31, 2008. The Company received payments and recognized revenue of \$1,450,000 related to Phase I during the year ended December 31, 2009 under the proportional performance method. During 2012, the Company received and recognized as revenue an additional \$100,000 from the third party. The third party did not elect to proceed with Phase 2 of the development agreement.

The fair market value of the warrants issued in connection with the development agreement was recognized as an offset to revenue as the revenue associated with the development agreement was recognized. The value of the warrants was recorded as a deferred charge that was proportionally offset against revenue earned over the development period through 2012. The Company recognized \$81,000, and \$598,000 as an offset to revenue associated with these warrants for the year ended December 31, 2012 and for the period from April 27, 2006 (inception) to March 31, 2014, respectively.

**13. Income Taxes**

In 2012 and 2013, the Company did not record a benefit for income taxes related to its operating losses incurred since inception. In assessing the ability to realize the net deferred tax assets, management considered whether it is more likely than not that some portion or all of the net deferred tax assets will not be realized. Based upon the level of historical U.S. losses and future projections over the period in which the net deferred tax assets are deductible, management believes it is more likely than not that the Company will not realize the benefits of these deductible differences. The Company has provided a full valuation allowance against its net deferred tax assets as of December 31, 2012 and 2013. The increase in the valuation allowance from 2012 to 2013 of \$9.0 million principally related to the current year taxable loss.

**T2 Biosystems, Inc.**  
**(A Development Stage Company)**

**Notes to Financial Statements (Continued)**

**13. Income Taxes (Continued)**

The reconciliation of the U.S. federal statutory rate to the Company's effective tax rate is as follows:

	<b>Year Ended</b>	
	<b>December 31,</b>	
	<b>2012</b>	<b>2013</b>
Tax at statutory rates	34.0%	35.0%
State income taxes	5.3	5.2
Change in tax rate	(0.2)	0.0
Permanent differences	(0.5)	(0.7)
Research and development credits	1.6	2.3
Change in valuation allowance	(40.2)	(41.8)
Effective tax rate	<u>0.0%</u>	<u>0.0%</u>

The significant components of the Company's deferred tax asset consist of the following at December 31, 2012 and 2013 (in thousands):

	<b>December 31,</b>	
	<b>2012</b>	<b>2013</b>
Net operating loss carryforwards	\$ 14,184	\$ 22,280
Tax credits	1,318	2,189
Other temporary differences	49	180
Start-up expenditures	5,449	5,318
Stock option expenses	70	179
Net deferred tax assets	<u>21,070</u>	<u>30,146</u>
Deferred tax asset valuation allowance	<u>(21,070)</u>	<u>(30,146)</u>
Net deferred tax assets	<u>\$ —</u>	<u>\$ —</u>

As of December 31, 2013, the Company had federal and state net operating losses of \$56,036,828 and \$51,405,945, respectively, which are available to offset future taxable income, if any, through 2023. The Company also had federal and state research and development tax credits of \$1,738,000 and \$694,000, respectively, which expire at various dates beginning in 2016 through 2023.

Under the provisions of the Internal Revenue Code, the net operating loss and tax credit carryforwards are subject to review and possible adjustment by the Internal Revenue Service and state tax authorities. Net operating loss and tax credit carryforwards may become subject to an annual limitation in the event of certain cumulative changes in the ownership interest of significant stockholders over a three-year period in excess of 50%, as defined under Sections 382 and 383 of the Internal Revenue Code, respectively, as well as similar state provisions. This could limit the amount of tax attributes that can be utilized annually to offset future taxable income or tax liabilities. The amount of the annual limitation is determined based on the value of the Company immediately

**T2 Biosystems, Inc.**  
**(A Development Stage Company)**

**Notes to Financial Statements (Continued)**

**13. Income Taxes (Continued)**

prior to the ownership change. Subsequent ownership changes may further affect the limitation in future years. The Company has completed several financings since its inception which may have resulted in a change in control as defined by Sections 382 and 383 of the Internal Revenue Code, or could result in a change in control in the future. The Company has not conducted an assessment to determine whether there may have been a Section 382 or 383 ownership change.

The Company has no unrecognized tax benefits. The Company has not conducted a study of its net operating loss carryforwards or its research and development credit carryforwards. A study could result in an adjustment to the Company's research and development credit carryforwards; however, until a study is completed and any adjustment is known, no amounts will be presented as an uncertain tax position under ASC 740-10. A full valuation allowance has been provided against the Company's research and development credits and, if an adjustment is required, this adjustment would be offset by an adjustment to the valuation allowance. Thus, there would be no impact to the balance sheets or statements of operations if an adjustment were required. Interest and penalty charges, if any, related to uncertain tax positions would be classified as income tax expenses in the accompanying consolidated statements of operations. At December 31, 2012 and 2013, the Company had no accrued interest or penalties related to uncertain tax positions.

The Company files income tax returns in the U.S. federal tax jurisdiction and various state jurisdictions. Since the Company is in a loss carryforward position, the Company is generally subject to examination by the U.S. federal, state and local income tax authorities for all tax years in which a loss carryforward is available. The open tax years subject to future audit in the United States of America are for the years ended December 31, 2010 through 2012. The Company does not have any international operations through December 31, 2013.

**14. Commitments and Contingencies**

In August 2010, the Company entered into a five-year, noncancelable operating lease for office and laboratory space. The Company has the option to extend the lease for one additional term of two years. The lease commenced on January 1, 2011, with the Company providing a security deposit of \$400,000. In accordance with the operating lease agreement, the Company reduced its security deposit by \$80,000 to \$320,000 on January 14, 2013.

On May 1, 2013, the Company entered into a six month operating lease for laboratory space with an option to extend the lease an additional six months. In September 2013, the Company exercised the extension.

On May 6, 2013, the Company entered into a two-year operating lease for additional office, laboratory and manufacturing space.



**T2 Biosystems, Inc.**  
**(A Development Stage Company)**

**Notes to Financial Statements (Continued)**

**14. Commitments and Contingencies (Continued)**

Future minimum lease payments under the Company's three operating leases are as follows (in thousands):

Year ending December 31,	
2014	\$ 649
2015	<u>624</u>
	<u>\$ 1,273</u>

Rent expense for the years ended December 31, 2012 and 2013 was \$558,000 and \$628,000, respectively, and for the three months ended March 31, 2013 and 2014 was \$140,000 and \$169,000, respectively, and for the period from April 27, 2006 (inception) to March 31, 2014 was \$2,122,000.

In 2006, the Company entered into a license agreement with a third party, pursuant to which the third party granted the Company an exclusive, worldwide, sublicenseable license under certain patent rights to make, use, import and commercialize products and processes for diagnostic, industrial and research and development purposes. The Company agreed to pay an annual license fee ranging from \$5,000 to \$25,000 for the royalty-bearing license to certain patents. For the years ended December 31, 2012 and 2013, and for the period from April 27, 2006 (inception) to December 31, 2013, the Company paid \$65,000, \$46,000 and \$521,000, respectively, for license fees and reimbursed patent costs under the agreement. The Company also issued a total of 84,678 shares of common stock pursuant to the agreement in 2006 and 2007, which were recorded at fair value at the date of issuance. The Company is required to make payments for achievement of certain regulatory milestones with respect to products and processes covered by the agreement of up to \$300,000 in the aggregate. The Company will be required to pay royalties on net sales of products and processes that are covered by patent rights licensed under the agreement at a percentage ranging in the low single digits, subject to reductions and offsets in certain circumstances, as well as a royalty on net sales of products that the Company sublicenses at a low double-digit percentage of specified gross revenue.

**15. Related-Party Transactions**

In June 2006, the board of directors voted to pay quarterly compensation to two of the Company's founders, who are also members of the board of directors, for their services to the Company. The annual compensation was initially \$0 and automatically increased to \$10,000 to \$40,000 upon the achievement of certain equity financing milestones, as defined in the consulting agreement. The total compensation expense for the years ended December 31, 2012 and 2013, for the three months ended March 31, 2013 and 2014 and the period from April 27, 2006 (inception) to March 31, 2014 was \$80,000, \$80,000, \$20,000, \$20,000 and \$405,000, respectively.

**16. 401(k) Savings Plan**

In March, 2008, the Company established a retirement savings plan under Section 401(k) of the Internal Revenue Code (the "401(k) Plan"). The 401(k) Plan covers substantially all employees

**T2 Biosystems, Inc.**  
**(A Development Stage Company)**

**Notes to Financial Statements (Continued)**

**16. 401(k) Savings Plan (Continued)**

of the Company who meet minimum age and service requirements, and allows participants to defer a portion of their annual compensation on a pretax basis. Company contributions to the 401(k) Plan may be made at the discretion of the board of directors. No contributions were made in the years ended December 31, 2012 and 2013, and for the three months ended March 31, 2013 and 2014.

**17. Subsequent Events (Unaudited)**

The Company has completed an evaluation of all subsequent events after the audited balance sheet date of December 31, 2013 through the date this Registration Statement on Form S-1 was filed with the SEC, to ensure that this filing includes appropriate disclosure of events both recognized in the financial statements as of December 31, 2013 and March 31, 2014, and events which occurred subsequently but were not recognized in the financial statements. The Company has concluded that no subsequent events have occurred that require disclosure, except as described below.

On July 1, 2014, the Board approved the following actions, which were approved by the stockholders on the same day:

- To amend the Company's 2006 Stock Option Plan to increase the number of shares reserved for future issuance from 4,706,890 to 6,332,882.
- To approve a Certificate of Amendment to the Restated Certificate of Incorporation to increase the authorized number of shares of common stock from 28,254,907 to 29,880,899.

Shares

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Common Stock

**Goldman, Sachs & Co.**

**Morgan Stanley**

**Leerink Partners**

**Janney Montgomery Scott**

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Through and including \_\_\_\_\_, 2014 (the 25<sup>th</sup> day after the date of this prospectus), all dealers effecting transactions in these securities, whether or not participating in this offering, may be required to deliver a prospectus. This is in addition to a dealer's obligation to deliver a prospectus when acting as an underwriter and with respect to an unsold allotment or subscription.

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Part II

INFORMATION NOT REQUIRED IN PROSPECTUS

**Item 13. Other Expenses of Issuance and Distribution.**

The following table indicates the expenses to be incurred in connection with this offering described in this registration statement, other than the underwriting discount, all of which will be paid by us. All amounts are estimated except the Securities and Exchange Commission registration fee, the Financial Industry Regulatory Authority, Inc., or FINRA, filing fee and The NASDAQ Global Market fee.

	<b>Amount</b>
SEC Registration fee	\$ 8,887.20
FINRA filing fee	10,850.00
NASDAQ Global Market initial listing fee	*
Accountants' fees and expenses	*
Legal fees and expenses	*
Blue Sky fees and expenses	*
Transfer Agent's fees and expenses	*
Printing and engraving expenses	*
Miscellaneous	*
Total expenses	<u>\$ *</u>

\* To be provided by amendment

**Item 14. Indemnification of Directors and Officers.**

Section 102 of the General Corporation Law of the State of Delaware permits a corporation to eliminate the personal liability of directors of a corporation to the corporation or its stockholders for monetary damages for a breach of fiduciary duty as a director, except where the director breached his duty of loyalty, failed to act in good faith, engaged in intentional misconduct or knowingly violated a law, authorized the payment of a dividend or approved a stock repurchase in violation of Delaware corporate law or obtained an improper personal benefit. Our restated certificate of incorporation provides that no director of the Registrant shall be personally liable to it or its stockholders for monetary damages for any breach of fiduciary duty as a director, notwithstanding any provision of law imposing such liability, except to the extent that the General Corporation Law of the State of Delaware prohibits the elimination or limitation of liability of directors for breaches of fiduciary duty.

Section 145 of the General Corporation Law of the State of Delaware provides that a corporation has the power to indemnify a director, officer, employee, or agent of the corporation, or a person serving at the request of the corporation for another corporation, partnership, joint venture, trust or other enterprise in related capacities against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by the person in connection with an action, suit or proceeding to which he was or is a party or is threatened to be made a party to any threatened, ending or completed action, suit or proceeding by reason of such position, if such person acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the corporation, and, in any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful, except that, in the case of actions brought by or in the right of the corporation, no indemnification shall be made with respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation

unless and only to the extent that the Court of Chancery or other adjudicating court determines that, despite the adjudication of liability but in view of all of the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

Our restated certificate of incorporation provides that we will indemnify each person who was or is a party or threatened to be made a party to any threatened, pending or completed action, suit or proceeding (other than an action by or in the right of us) by reason of the fact that he or she is or was, or has agreed to become, a director or officer, or is or was serving, or has agreed to serve, at our request as a director, officer, partner, employee or trustee of, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise (all such persons being referred to as an "Indemnitee"), or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred in connection with such action, suit or proceeding and any appeal therefrom, if such Indemnitee acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, our best interests, and, with respect to any criminal action or proceeding, he or she had no reasonable cause to believe his or her conduct was unlawful. Our restated certificate of incorporation provides that we will indemnify any Indemnitee who was or is a party to an action or suit by or in the right of us to procure a judgment in our favor by reason of the fact that the Indemnitee is or was, or has agreed to become, a director or officer, or is or was serving, or has agreed to serve, at our request as a director, officer, partner, employee or trustee of, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise, or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including attorneys' fees) and, to the extent permitted by law, amounts paid in settlement actually and reasonably incurred in connection with such action, suit or proceeding, and any appeal therefrom, if the Indemnitee acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, our best interests, except that no indemnification shall be made with respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to us, unless a court determines that, despite such adjudication but in view of all of the circumstances, he or she is entitled to indemnification of such expenses. Notwithstanding the foregoing, to the extent that any Indemnitee has been successful, on the merits or otherwise, he or she will be indemnified by us against all expenses (including attorneys' fees) actually and reasonably incurred in connection therewith. Expenses must be advanced to an Indemnitee under certain circumstances.

We have entered into indemnification agreements with each of our directors and officers. These indemnification agreements may require us, among other things, to indemnify our directors and officers for some expenses, including attorneys' fees, judgments, fines and settlement amounts incurred by a director or officer in any action or proceeding arising out of his or her service as one of our directors or officers, or any other company or enterprise to which the person provides services at our request.

We maintain a general liability insurance policy that covers certain liabilities of directors and officers of our corporation arising out of claims based on acts or omissions in their capacities as directors or officers.

In any underwriting agreement we enter into in connection with the sale of common stock being registered hereby, the underwriters will agree to indemnify, under certain conditions, us, our directors, our officers and persons who control us within the meaning of the Securities Act of 1933, as amended, or the Securities Act, against certain liabilities.

**Item 15. Recent Sales of Unregistered Securities.**

Set forth below is information regarding shares of capital stock issued by us within the past three years. Also included is the consideration received by us for such shares and information relating to the section of the Securities Act, or rule of the Securities and Exchange Commission, under which exemption from registration was claimed.

(a) Issuance of Securities.

1. In August 2011, we issued an aggregate of 5,054,945 shares of series D preferred stock to investors at a price per share of \$4.55 for aggregate gross consideration of \$23.0 million. These shares will automatically convert into 5,054,945 shares of our common stock upon the closing of this offering.

2. In March 2013, we issued an aggregate of 6,930,967 shares of series E preferred stock to investors at a price per share of \$5.7712 for aggregate gross consideration of \$40.0 million. These shares will automatically convert into 6,930,967 shares of our common stock upon the closing of this offering.

(b) Stock Option Grants. From January 1, 2011 through July 1, 2014, we granted stock options to purchase an aggregate of 3,934,584 shares of our common stock at a weighted-average exercise price of \$2.33 per share, to certain of our employees, directors and consultants in connection with services provided to us by such persons. Of these, options to purchase 71,793 shares of common stock have been exercised through July 1, 2014 for aggregate consideration of \$101,277, at a weighted-average exercise price of \$1.41 per share.

(c) Warrants. Since May 2011, we issued one warrant to SVB and one to MDF in connection with various loan and security agreements. These warrants are immediately exercisable for the purchase of 49,780 shares of preferred stock. If none of these warrants are exercised, upon the closing of this offering, SVB's warrant for 19,780 shares of preferred stock will terminate while MDF's warrant for the purchase of 30,000 shares of preferred stock will automatically convert to common stock pursuant to a cashless net exercise.

The issuances of stock options, warrants and the shares of common stock issuable upon the exercise of the options described in this Item 15 were issued pursuant to written compensatory plans or arrangements with our employees, directors and consultants, in reliance on the exemption provided by Rule 701 promulgated under the Securities Act, or pursuant to Section 4(a)(2) under the Securities Act, relative to transactions by an issuer not involving any public offering, to the extent an exemption from such registration was required.

All of the foregoing securities are deemed restricted securities for purposes of the Securities Act. All certificates representing the issued shares of capital stock described in this Item 15 included appropriate legends setting forth that the securities have not been registered and the applicable restrictions on transfer.

**Item 16. Exhibits and Financial Statement Schedules.**

(a) Exhibits.

<u>Exhibit Number</u>	<u>Description of Exhibit</u>
1.1*	Form of Underwriting Agreement
3.1	Restated Certificate of Incorporation of the Registrant, as amended (currently in effect)
3.2	Bylaws of the Registrant (currently in effect)
3.3*	Form of Restated Certificate of Incorporation of the Registrant (to be effective upon the closing of this offering)
3.4*	Form of Amended and Restated Bylaws of the Registrant (to be effective upon the closing of this offering)
4.1*	Specimen Stock Certificate evidencing the shares of common stock
4.2	Fourth Amended and Restated Investors' Rights Agreement, dated as of March 22, 2013
5.1*	Opinion of Latham & Watkins LLP
10.1#	Amended and Restated 2006 Employee, Director and Consultant Stock Plan, as amended, and form of option agreements thereunder
10.2##	2014 Incentive Award Plan and form of option agreements thereunder
10.3##	Non-Employee Director Compensation Program
10.4*	Form of Indemnification Agreement for Directors and Officers
10.5#	Employment Letter Agreement, dated as of March 14, 2008, by and between the Registrant and John McDonough
10.6#	Employment Letter Agreement, dated as of March 8, 2013, by and between the Registrant and Marc Jones
10.7#	Employment Letter Agreement, dated as of July 19, 2013, by and between the Registrant and Sarah Kalil
10.8#	Employment Letter Agreement, dated as of February 15, 2014, by and between the Registrant and Michael Pfaller
10.9#	Employment Letter Agreement, dated as of December 19, 2006, by and between the Registrant and Tom Lowery, Jr.
10.10#	Consulting Agreement, dated as of July 20, 2006, by and between the Registrant and Michael Cima, as amended on March 19, 2013
10.11#	Consulting Agreement, dated as of July 20, 2006 by and between the Registrant and Robert Langer, as amended on March 20, 2013
10.12†	Sales Agreement, dated as of February 11, 2011, by and between GE Healthcare Bio-Sciences Corp. and the Registrant
10.13†	Exclusive License Agreement, dated as of November 7, 2006, as amended on December 2, 2008 and February 21, 2011, by and between The General Hospital Corporation d/b/a Massachusetts General Hospital and the Registrant

<b>Exhibit Number</b>	<b>Description of Exhibit</b>
10.14	Security Agreement, dated as of May 9, 2011, by and between the Registrant and Massachusetts Development Finance Agency
10.15	Loan and Security Agreement, dated as of August 30, 2007, as amended by the First Loan Modification Agreement on June 26, 2009 and the Second Loan Modification Agreement on June 25, 2013, by and between the Registrant and Silicon Valley Bank
10.16	Commercial Lease, dated as of May 6, 2013, as amended on September 24, 2013, by and between the Registrant and Columbus Day Realty, Inc.
10.17	Lease, dated as of August 6, 2010, by and between the Registrant and King 101 Hartwell LLC
10.18	Promissory Note, dated May 9, 2011, issued by the Registrant to Massachusetts Development Finance Agency
23.1	Consent of Ernst & Young LLP
23.2*	Consent of Latham & Watkins LLP (included in Exhibit 5.1)
24.1	Power of Attorney (with respect to Messrs. Cumming and Elsbree, included on signature page)

\* To be filed by amendment.

# Indicates management contract or compensatory plan.

† Portions of this exhibit (indicated by asterisks) have been omitted pursuant to a request for confidential treatment pursuant to Rule 406 under the Securities Act of 1933.

(b) Financial Statement Schedules. Schedules not listed above 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.**

The undersigned registrant hereby undertakes to provide to the underwriter, at the closing 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.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.



The undersigned hereby undertakes that:

- (1) For purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.
  - (2) For the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
  - (3) For the purpose of determining liability under the Securities Act to any purchaser, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.
  - (4) In a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:
    - (i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;
    - (ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;
    - (iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and
    - (iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.
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**SIGNATURES**

Pursuant to the requirements of the Securities Act, 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 Lexington, Commonwealth of Massachusetts, on this 2nd day of July, 2014.

T2 BIOSYSTEMS, INC.

By: /s/ JOHN MCDONOUGH

John McDonough  
President and Chief Executive Officer

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## SIGNATURES AND POWER OF ATTORNEY

We, the undersigned officers and directors of T2 Biosystems, Inc., hereby severally constitute and appoint John McDonough and Marc R. Jones, and each of them singly (with full power to each of them to act alone), as our true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution in each of them for him and in his name, place and stead, and in any and all capacities, to sign any and all amendments (including post-effective amendments) to this registration statement (or any other 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 other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite or necessary to be done in and about the premises, as full to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or their or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement on Form S-1 has been signed by the following persons in the capacities held on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<hr/> <u>/s/ JOHN MCDONOUGH</u> John McDonough	President, Chief Executive Officer and Director (principal executive officer)	July 2, 2014
<hr/> <u>/s/ MARC R. JONES</u> Marc R. Jones	Chief Financial Officer (principal financial and accounting officer)	July 2, 2014
<hr/> * David B. Aronoff	Director	July 2, 2014
<hr/> * Joshua Bilenker, M.D.	Director	July 2, 2014
<hr/> * Thomas J. Carella	Director	July 2, 2014
<hr/> * Michael J. Cima, Ph.D.	Director	July 2, 2014
<hr/> * Alan Crane	Director	July 2, 2014

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**Signature**

**Title**

**Date**

/s/ JOHN W. CUMMING

John W. Cumming

Director

July 2, 2014

/s/ DAVID ELSBREE

David Elsbree

Director

July 2, 2014

\*

Stacy A. Feld

Director

July 2, 2014

\*

Robert Langer, D. Sc.

Director

July 2, 2014

\*

Stanley N. Lapidus

Director

July 2, 2014

\*

Harry W. Wilcox

Director

July 2, 2014

By:

/s/ JOHN MCDONOUGH

John McDonough  
*Attorney-in-Fact*

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\*      To be filed by amendment.

#      Indicates management contract or compensatory plan.

†      Portions of this exhibit (indicated by asterisks) have been omitted pursuant to a request for confidential treatment pursuant to Rule 406 under the Securities Act of 1933.

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RESTATED  
 CERTIFICATE OF INCORPORATION  
 OF  
 T2 BIOSYSTEMS, INC.

T2 BIOSYSTEMS, INC., a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware (the “**Corporation**”), does hereby certify that:

1. The name of the Corporation is T2 Biosystems, Inc.
2. The Certificate of Incorporation of the Corporation was filed with the Delaware Secretary of State on April 27, 2006 under the name Bioplex Systems, Inc. A Certificate of Amendment to the Certificate of Incorporation was filed on July 24, 2006 and a Certificate of Designation was filed on July 24, 2006. A Certificate of Amendment to the Certificate of Incorporation was filed on December 6, 2006 that changed the name of the Corporation to T2 Biosystems, Inc. A Certificate of Amendment to the Certificate of Incorporation was filed on August 30, 2007. A Restated Certificate of Incorporation was filed on July 29, 2008. A Certificate of Amendment to the Restated Certificate of Incorporation was filed on September 5, 2008. A Certificate of Amendment to the Restated Certificate of Incorporation was filed on September 25, 2008. A Restated Certificate of Incorporation was filed on May 13, 2010. A Restated Certificate of Incorporation was filed on August 2, 2011. A Certificate of Amendment to the Restated Certificate of Incorporation was filed on June 22, 2012.
3. This Restated Certificate of Incorporation amends and restates the Restated Certificate of Incorporation filed on August 2, 2011, as amended (the “**Restated Certificate of Incorporation**”), and has been duly adopted in accordance with the provisions of Sections 141, 242 and 245 of the General Corporation Law of the State of Delaware.
4. Pursuant to Section 228(a) of the General Corporation Law of the State of Delaware, the holders of outstanding shares of the Corporation having no less than the minimum number of votes that would be necessary to authorize or take such actions at a meeting at which all shares entitled to vote thereon were present and voted, consented to the adoption of the aforesaid amendments without a meeting, without a vote and without prior notice and that written notice of the taking of such actions is being given in accordance with Section 228(e) of the General Corporation Law of the State of Delaware.
5. The text of the Restated Certificate of Incorporation is hereby amended and restated to read in full as follows:

RESTATED  
 CERTIFICATE OF INCORPORATION  
 OF  
 T2 BIOSYSTEMS, INC.

*FIRST:* The name of the corporation (hereinafter called the “**Corporation**”) is

**T2 BIOSYSTEMS, INC.**

*SECOND:* The address, including street, number, city, and county, of the registered office of the Corporation in the State of Delaware is 2711 Centerville Road, Suite 400, City of Wilmington, County of New Castle; and the name of the registered agent of the Corporation in the State of Delaware is Corporation Service Company.

*THIRD:* The nature of the business to be conducted and the purposes of the Corporation are:

To purchase or otherwise acquire, invest in, own, lease, mortgage, pledge, sell, assign and transfer or otherwise dispose of, trade and deal in and with real property and personal property of every kind, class and description (including, without limitation, goods, wares and merchandise of every kind, class and description), to manufacture goods, wares and merchandise of every kind, class and description, both on its own account and for others;

To make and perform agreements and contracts of every kind and description; and

Generally to engage in any lawful act or activity or carry on any business for which corporations may be organized under the General Corporation Law of the State of Delaware or any successor statute.

*FOURTH:*

The Corporation is authorized to issue two classes of stock to be designated, respectively, “**Common Stock**” and “**Preferred Stock**.” The aggregate number of shares which the Corporation is authorized to issue is 49,900,066 shares, each with a par value of \$0.001 per share. 28,254,907 shares shall be Common Stock and 21,645,159 shares shall be Preferred Stock, each with the par value of \$0.001 per share. The Preferred Stock may be issued in one or more series, of which (i) one such series shall be designated the “**Series A-1 Convertible Preferred Stock**” and shall consist of 282,849 shares of Series A-1 Convertible Preferred Stock (the “**Series A-1 Preferred Stock**”), (ii) one such series shall be designated the “**Series A-2 Convertible Preferred Stock**” and shall consist of 1,717,728 shares of Series A-2 Convertible Preferred Stock (the “**Series A-2 Preferred Stock**,” together with the Series A-1 Preferred Stock, the “**Series A Preferred Stock**”), (iii) one such series shall be designated the “**Series B Convertible Preferred Stock**” and shall consist of 3,523,765 shares of Series B Convertible

Preferred Stock (the “**Series B Preferred Stock**”), (iv) one such series shall be designated the “**Series C Convertible Preferred Stock**” and shall consist of 4,085,125 shares of Series C Convertible Preferred Stock (the “**Series C Preferred Stock**”), (v) one such series shall be designated the “**Series D Convertible Preferred Stock**” and shall consist of 5,074,725 shares of Series D Convertible Preferred Stock (the “**Series D Preferred Stock**”), and (vi) one such series shall be designated the “**Series E Convertible Preferred Stock**” and shall consist of 6,960,967 shares of Series E Convertible Preferred Stock (the “**Series E Preferred Stock**”). The Board of Directors is authorized, subject to any limitations prescribed by law and this Restated Certificate of Incorporation, as amended from time to time, to provide for the issuance of shares of Preferred Stock in series, and by filing a certificate pursuant to the applicable law of the State of Delaware (such certificate being hereafter referred to as a “**Preferred Stock Designation**”), to establish from time to time the number of shares to be included in each such series, and to fix the designation, powers, preferences and rights of the shares of each such series and any qualifications, limitations or restrictions thereof. The number of authorized shares of Common Stock may be increased or decreased (but not below the number of shares of Common Stock then outstanding) by the affirmative vote of the holders of a majority of the capital stock of the Corporation entitled to vote (voting together as a single class on an as-if-converted basis), irrespective of the provisions of 242(b)(2) of the General Corporation Law of the State of Delaware. The holders of Common Stock are not entitled to vote separately as a class to increase or decrease the number of authorized shares of Common Stock.

The following is a statement of the designations and the powers, preferences and rights, and the qualifications, limitations and restrictions thereof in respect of each class of capital stock of the Corporation.

A. Common Stock.

1. General. The voting, dividend and liquidation and other rights of the holders of the Common Stock are expressly made subject to and qualified by the rights of the holders of any series of Preferred Stock.
2. Voting Rights. The holders of record of the Common Stock are entitled to one vote per share on all matters to be voted on by the Corporation’s stockholders.
3. Dividends. Dividends may be declared and paid on the Common Stock from funds lawfully available therefor if, as and when determined by the Board of Directors in their sole discretion, subject to provisions of law, any provision of this Restated Certificate of Incorporation, as amended from time to time, and subject to the relative rights and preferences of any shares of Preferred Stock authorized, issued and outstanding hereunder.



4. Liquidation. Upon the dissolution, liquidation or winding up of the Corporation, whether voluntary or involuntary, holders of record of the Common Stock will be entitled to receive *pro rata* all assets of the Corporation available for distribution to

its stockholders, subject, however, to the liquidation rights of the holders of Preferred Stock authorized, issued and outstanding hereunder.

B. Preferred Stock.

1. Dividends.

(a) The holders of Preferred Stock shall be entitled to receive dividends as follows: (i) from and after the issuance of each share of Series A Preferred Stock, the holder of such share of Series A Preferred Stock shall be entitled to receive dividends at the rate of eight percent (8%) of the applicable Series A Preferred Original Issue Price (as defined below) per annum per share (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization affecting such shares), (ii) from and after the issuance of each share of Series B Preferred Stock, the holder of such share of Series B Preferred Stock shall be entitled to receive dividends at the rate of eight percent (8%) of the applicable Series B Preferred Original Issue Price (as defined below) per annum per share (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization affecting such shares), (iii) from and after the issuance of each share of Series C Preferred Stock, the holder of such share of Series C Preferred Stock shall be entitled to receive dividends at the rate of eight percent (8%) of the applicable Series C Preferred Original Issue Price (as defined below) per annum per share (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization affecting such shares), (iv) from and after the issuance of each share of Series D Preferred Stock, the holder of such share of Series D Preferred Stock shall be entitled to receive dividends at the rate of eight percent (8%) of the applicable Series D Preferred Original Issue Price (as defined below) per annum per share (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization affecting such shares), and (v) from and after the issuance of each share of Series E Preferred Stock, the holder of such share of Series E Preferred Stock shall be entitled to receive dividends at the rate of eight percent (8%) of the applicable Series E Preferred Original Issue Price (as defined below) per annum per share (subject to appropriate adjustment in the event of any stock dividend, stock split, combination of or other similar recapitalization affecting such shares) (the dividends described in subsections (i), (ii), (iii), (iv) and (v) of this paragraph are referred to herein as the “**Accruing Dividends**”). Accruing Dividends shall accrue from day to day, whether or not earned or declared, and shall be cumulative and non-compounding; provided, however, that except as set forth in this Section 1, Subsections 2(a), 2(b), 2(c), 2(d) or 2(e), or Section 6, the Corporation shall be under no obligation to pay such Accruing Dividends.

(b) The Corporation shall not declare, pay or set aside any dividends on any other shares of capital stock of the Corporation (other than dividends on shares of Common Stock payable in shares of Common Stock) unless the holders of the Series E Preferred Stock then outstanding shall receive, *pari passu* with the holders of the Corporation’s Series A Preferred Stock, the holders of the Corporation’s Series B Preferred Stock, the holders of the Corporation’s Series C Preferred Stock and the holders of the Corporation’s Series D Preferred

Stock, a dividend on each outstanding share of Series E Preferred Stock in an amount at least equal to (i) the amount of the aggregate Accruing Dividends then accrued on such share of Series E Preferred Stock and not previously paid plus (ii) (A) in the case of a dividend on Common Stock or any class or series that is convertible into Common Stock, that dividend per share of Series E Preferred Stock as would equal the product of (1) the dividend payable on each share of such class or series determined, if applicable, as if all such shares of such class or series had been converted into Common Stock and (2) the number of shares of Common Stock issuable upon conversion of a share of Series E Preferred Stock, in each case calculated on the record date for determination of holders entitled to receive such dividend or (B) in the case of a dividend on any class or series that is not convertible into Common Stock, at a rate per share of Series E Preferred Stock determined by dividing the amount of the dividend payable on each share of such class or series of capital stock by the original issuance price of such class or series of capital stock and multiplying such fraction by an amount equal to \$5.7712 per share of Series E Preferred Stock (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization affecting such shares) (such amount, as so adjusted from time to time, being hereinafter referred to as the “**Series E Original Issue Price**”).

(c) The Corporation shall not declare, pay or set aside any dividends on any other shares of capital stock of the Corporation (other than dividends on shares of Common Stock payable in shares of Common Stock) unless the holders of the Series D Preferred Stock then outstanding shall receive, *pari passu* with the holders of the Corporation’s Series A Preferred Stock, the holders of the Corporation’s Series B Preferred Stock, the holders of the Corporation’s Series C Preferred Stock and the holders of the Corporation’s Series E Preferred Stock, a dividend on each outstanding share of Series D Preferred Stock in an amount at least equal to (i) the amount of the aggregate Accruing Dividends then accrued on such share of Series D Preferred Stock and not previously paid plus (ii) (A) in the case of a dividend on Common Stock or any class or series that is convertible into Common Stock, that dividend per share of Series D Preferred Stock as would equal the product of (1) the dividend payable on each share of such class or series determined, if applicable, as if all such shares of such class or series had been converted into Common Stock and (2) the number of shares of Common Stock issuable upon conversion of a share of Series D Preferred Stock, in each case calculated on the record date for determination of holders entitled to receive such dividend or (B) in the case of a dividend on any class or series that is not convertible into Common Stock, at a rate per share of Series D Preferred Stock determined by dividing the amount of the dividend payable on each share of such class or series of capital stock by the original issuance price of such class or series of capital stock and multiplying such fraction by an amount equal to \$4.55 per share of Series D Preferred Stock (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization affecting such shares) (such amount, as so adjusted from time to time, being hereinafter referred to as the “**Series D Original Issue Price**”).

(d) The Corporation shall not declare, pay or set aside any dividends on any other shares of capital stock of the Corporation (other than dividends on shares of Common Stock payable in shares of Common Stock) unless the holders of the Series C Preferred Stock then outstanding shall receive, *pari passu* with the holders of the Corporation’s Series A

Preferred Stock, the holders of the Corporation’s Series B Preferred Stock, the holders of the Corporation’s Series D Preferred Stock and the holders of the Corporation’s Series E Preferred Stock, a dividend on each outstanding share of Series C Preferred Stock in an amount at least equal to (i) the amount of the aggregate Accruing Dividends then accrued on such share of Series C Preferred Stock and not previously paid plus (ii) (A) in the case of a dividend on Common Stock or any class or series that is convertible into Common Stock, that dividend per share of Series C Preferred Stock as would equal the product of (1) the dividend payable on each share of such class or series determined, if applicable, as if all such shares of such class or series had been converted into Common Stock and (2) the number of shares of Common Stock issuable upon conversion of a share of Series C Preferred Stock, in each case calculated on the record date for determination of holders entitled to receive such dividend or (B) in the case of a dividend on any class or series that is not convertible into Common Stock, at a rate per share of Series C Preferred Stock determined by dividing the amount of the dividend payable on each share of such class or series of capital stock by the original issuance price of such class or series of capital stock and multiplying such fraction by an amount equal to \$3.6608 per share of Series C Preferred Stock (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization affecting such shares) (such amount, as so adjusted from time to time, being hereinafter referred to as the “**Series C Original Issue Price**”).

(e) The Corporation shall not declare, pay or set aside any dividends on any other shares of capital stock of the Corporation (other than dividends on shares of Common Stock payable in shares of Common Stock) unless the holders of the Series B Preferred Stock then outstanding shall receive, *pari passu* with the holders of the Corporation’s Series A Preferred Stock, the holders of the Corporation’s Series C Preferred Stock, the holders of the Corporation’s Series D Preferred Stock and the holders of the Corporation’s Series E Preferred Stock, a dividend on each outstanding share of Series B Preferred Stock in an amount at least equal to (i) the amount of the aggregate Accruing Dividends then accrued on such share of Series B Preferred Stock and not previously paid plus (ii) (A) in the case of a dividend on Common Stock or any class or series that is convertible into Common Stock, that dividend per share of Series B Preferred Stock as would equal the product of (1) the dividend payable on each share of such class or series determined, if applicable, as if all such shares of such class or series had been converted into Common Stock and (2) the number of shares of Common Stock issuable upon conversion of a share of Series B Preferred Stock, in each case calculated on the record date for determination of holders entitled to receive such dividend or (B) in the case of a dividend on any class or series that is not convertible into Common Stock, at a rate per share of Series B Preferred Stock determined by dividing the amount of the dividend payable on each share of such class or series of capital stock by the original issuance price of such class or series of capital stock and multiplying such fraction by an amount equal to \$3.3232 per share of Series B Preferred Stock (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization affecting such shares) (such amount, as so adjusted from time to time, being hereinafter referred to as the “**Series B Original Issue Price**”).

(f) The Corporation shall not declare, pay or set aside any dividends on any other shares of capital stock of the Corporation (other than dividends on shares of Common

Stock payable in shares of Common Stock) unless the holders of the Series A Preferred Stock then outstanding shall receive, *pari passu* with the holders of the Corporation's Series B Preferred Stock, the holders of the Corporation's Series C Preferred Stock, the holders of the Corporation's Series D Preferred Stock and the holders of the Corporation's Series E Preferred Stock, a dividend on each outstanding share of Series A Preferred Stock in an amount at least equal to (i) the amount of the aggregate Accruing Dividends then accrued on such share of Series A Preferred Stock and not previously paid plus (ii) (A) in the case of a dividend on Common Stock or any class or series that is convertible into Common Stock, that dividend per share of Series A Preferred Stock as would equal the product of (1) the dividend payable on each share of such class or series determined, if applicable, as if all such shares of such class or series had been converted into Common Stock and (2) the number of shares of Common Stock issuable upon conversion of a share of Series A Preferred Stock, in each case calculated on the record date for determination of holders entitled to receive such dividend or (B) in the case of a dividend on any class or series that is not convertible into Common Stock, at a rate per share of Series A Preferred Stock determined by dividing the amount of the dividend payable on each share of such class or series of capital stock by the original issuance price of such class or series of capital stock and multiplying such fraction by an amount equal to, as the case may be, (i) \$1.9445 per share of Series A-1 Preferred Stock (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization affecting such shares) (such amount, as so adjusted from time to time, being hereinafter referred to as the "**Series A-1 Original Issue Price**") and (ii) \$2.905 per share of Series A-2 Preferred Stock (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization affecting such shares) (such amount, as so adjusted from time to time, being hereinafter referred to as the "**Series A-2 Original Issue Price**"). "**Series A Preferred Original Issue Price**" shall mean the Series A-1 Original Issue Price or the Series A-2 Original Issue Price, as applicable.

"**Preferred Stock Original Issue Price**" shall mean the Series A-1 Original Issue Price, the Series A-2 Original Issue Price, the Series B Original Issue Price, the Series C Original Issue Price, the Series D Original Issue Price or the Series E Original Issue Price, as applicable.

(g) Accruing Dividends shall not be paid upon the conversion of shares of Preferred Stock pursuant to Sections 4 and 5.

2. Liquidation, Dissolution or Winding Up; Certain Mergers, Consolidations and Asset Sales.

(a) Payments to Holders of Series E Preferred Stock. In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Corporation, the holders of shares of Series E Preferred Stock then outstanding shall be entitled to be paid out of the assets available for distribution to its stockholders, *pari passu* with the holders of the Corporation's Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock and Series D Preferred Stock, but before any payment shall be made to the holders of Common Stock or any other class or series of stock ranking on liquidation junior to the Series A Preferred Stock, Series

7

B Preferred Stock, Series C Preferred Stock, Series D Preferred Stock and Series E Preferred Stock (such Common Stock and other stock being collectively referred to as "**Junior Stock**") by reason of their ownership thereof, an amount equal to the greater of (i) the applicable Series E Preferred Original Issue Price for such series, plus any Accruing Dividends accrued but unpaid thereon, whether or not declared, together with any other dividends declared but unpaid thereon, or (ii) such amount per share as would have been payable had each such share of Series E Preferred Stock been converted into Common Stock pursuant to Section 4 immediately prior to such liquidation, dissolution or winding up (the amount payable pursuant to this sentence with respect to each series, as applicable, is hereinafter referred to as the "**Series E Liquidation Amount**"). The Series E Preferred Stock shall rank on liquidation on a parity with the Series A Preferred Stock, the Series B Preferred Stock, the Series C Preferred Stock and the Series D Preferred Stock. If upon any such liquidation, dissolution or winding up of the Corporation the remaining assets available for distribution to its stockholders shall be insufficient to pay the holders of shares of Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock, Series D Preferred Stock and Series E Preferred Stock the full amount to which they shall be entitled, the holders of shares of Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock, Series D Preferred Stock and Series E Preferred Stock shall share ratably in any distribution of the remaining assets available for distribution in proportion to the respective amounts which would otherwise be payable in respect of the shares held by them upon such distribution if all amounts payable on or with respect to such shares were paid in full.

(b) Payments to Holders of Series D Preferred Stock. In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Corporation, the holders of shares of Series D Preferred Stock then outstanding shall be entitled to be paid out of the assets available for distribution to its stockholders, *pari passu* with the holders of the Corporation's Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock and Series E Preferred Stock, but before any payment shall be made to the holders of Junior Stock by reason of their ownership thereof, an amount equal to the greater of (i) the applicable Series D Preferred Original Issue Price for such series, plus any Accruing Dividends accrued but unpaid thereon, whether or not declared, together with any other dividends declared but unpaid thereon, or (ii) such amount per share as would have been payable had each such share of Series D Preferred Stock been converted into Common Stock pursuant to Section 4 immediately prior to such liquidation, dissolution or winding up (the amount payable pursuant to this sentence with respect to each series, as applicable, is hereinafter referred to as the "**Series D Liquidation Amount**"). The Series D Preferred Stock shall rank on liquidation on a parity with the Series A Preferred Stock, the Series B Preferred Stock, the Series C Preferred Stock and the Series E Preferred Stock. If upon any such liquidation, dissolution or winding up of the Corporation the remaining assets available for distribution to its stockholders shall be insufficient to pay the holders of shares of Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock, Series D Preferred Stock and Series E Preferred Stock the full amount to which they shall be entitled, the holders of shares of Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock, Series D Preferred Stock and Series E Preferred Stock shall share ratably in any distribution of the remaining assets available for distribution in proportion to the respective amounts which

8

would otherwise be payable in respect of the shares held by them upon such distribution if all amounts payable on or with respect to such shares were paid in full.

(c) Payments to Holders of Series C Preferred Stock. In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Corporation, the holders of shares of Series C Preferred Stock then outstanding shall be entitled to be paid out of the assets available for distribution to its stockholders, *pari passu* with the holders of the Corporation's Series A Preferred Stock, Series B Preferred Stock, Series D Preferred Stock and Series E Preferred Stock, but before any payment shall be made to the holders of Junior Stock by reason of their ownership thereof, an amount equal to the greater of (i) the applicable Series C Preferred Original Issue Price for such series, plus any Accruing Dividends accrued but unpaid thereon, whether or not declared, together with any other dividends declared but unpaid thereon, or (ii) such amount per share as would have been payable had each such share of Series C Preferred Stock been converted into Common Stock pursuant to Section 4 immediately prior to such liquidation, dissolution or winding up (the amount payable pursuant to this sentence with respect to each series, as applicable, is hereinafter referred to as the "**Series C Liquidation Amount**"). The Series C Preferred Stock shall rank on liquidation on a parity with the Series A Preferred Stock, the Series B Preferred Stock, the Series D Preferred Stock and the Series E Preferred Stock. If upon any such liquidation, dissolution or winding up of the Corporation the remaining assets available for distribution to its stockholders shall be insufficient to pay the holders of shares of Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock, Series D Preferred Stock and Series E Preferred Stock the full amount to which they shall be entitled, the holders of shares of Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock, Series D Preferred Stock and Series E Preferred Stock shall share ratably in any distribution of the remaining assets available for distribution in proportion to the respective amounts which would otherwise be payable in respect of the shares held by them upon such distribution if all amounts payable on or with respect to such shares were paid in full.

(d) Payments to Holders of Series B Preferred Stock. In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Corporation, the holders of shares of Series B Preferred Stock then outstanding shall be entitled to be paid out of the assets available for distribution to its stockholders, *pari passu* with the holders of the Corporation's Series A Preferred Stock, Series C Preferred Stock, Series D Preferred Stock and Series E Preferred Stock, but before any payment shall be made to the holders of Junior Stock by reason of their ownership thereof, an amount equal to the greater of (i) the applicable Series B Preferred Original Issue Price for such series, plus any Accruing Dividends accrued but unpaid thereon, whether or not declared, together with any other dividends declared but unpaid thereon, or (ii) such amount per share as would have been payable had each such share of Series B Preferred Stock been converted into Common Stock pursuant to Section 4 immediately prior to such liquidation, dissolution or winding up (the amount payable pursuant to this sentence with respect to each series, as applicable, is hereinafter referred to as the "**Series B Liquidation Amount**"). The Series B Preferred Stock shall rank on liquidation on a parity with the Series A Preferred Stock, the Series C Preferred Stock, the Series D Preferred Stock and the Series E Preferred Stock. If upon any such liquidation, dissolution or winding up of the Corporation the remaining

9

assets available for distribution to its stockholders shall be insufficient to pay the holders of shares of Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock, Series D Preferred Stock and Series E Preferred Stock the full amount to which they shall be entitled, the holders of shares of Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock, Series D Preferred Stock and Series E Preferred Stock shall share ratably in any distribution of the remaining assets available for distribution in proportion to the respective amounts which would otherwise be payable in respect of the shares held by them upon such distribution if all amounts payable on or with respect to such shares were paid in full.

(e) Payments to Holders of Series A Preferred Stock. In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Corporation, the holders of shares of each series of Series A Preferred Stock then outstanding shall be entitled to be paid out of the assets available for distribution to its stockholders, *pari passu* with the holders of the Corporation's Series B Preferred Stock, Series C Preferred Stock, Series D Preferred Stock and Series E Preferred Stock, but before any payment shall be made to the holders of Junior Stock by

reason of their ownership thereof, an amount equal to the greater of (i) the applicable Series A Preferred Original Issue Price for such series, plus any Accruing Dividends accrued but unpaid thereon, whether or not declared, together with any other dividends declared but unpaid thereon, or (ii) such amount per share as would have been payable had each such share of Series A Preferred Stock been converted into Common Stock pursuant to Section 4 immediately prior to such liquidation, dissolution or winding up (the amount payable pursuant to this sentence with respect to each series, as applicable, is hereinafter referred to as the “**Series A Liquidation Amount**”). Each series of Series A Preferred Stock shall rank on liquidation on a parity with the other series of Series A Preferred Stock and the Series A Preferred Stock shall rank on liquidation on a parity with the Series B Preferred Stock, the Series C Preferred Stock, the Series D Preferred Stock and the Series E Preferred Stock. If upon any such liquidation, dissolution or winding up of the Corporation the remaining assets available for distribution to its stockholders shall be insufficient to pay the holders of shares of Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock, Series D Preferred Stock and Series E Preferred Stock the full amount to which they shall be entitled, the holders of shares of Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock, Series D Preferred Stock and Series E Preferred Stock shall share ratably in any distribution of the remaining assets available for distribution in proportion to the respective amounts which would otherwise be payable in respect of the shares held by them upon such distribution if all amounts payable on or with respect to such shares were paid in full.

(f) Payments to Holders of Common Stock. After the payment of all preferential amounts required to be paid to the holders of Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock, Series D Preferred Stock and Series E Preferred Stock, the holders of shares of Common Stock then outstanding shall be entitled to receive the remaining assets of the Corporation available for distribution to its stockholders as set forth in this Restated Certificate of Incorporation.

10

(g) Deemed Liquidation Events.

(i) The following events shall be deemed to be a liquidation of the Corporation for purposes of this Section 2 (a “**Deemed Liquidation Event**”), unless the holders of at least a majority (50%) of the outstanding shares of Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock, Series D Preferred Stock and Series E Preferred Stock, voting together as a class, elect otherwise by written notice given to the Corporation at least two (2) days prior to the effective date of any such event:

(A) a merger or consolidation in which

(I) the Corporation is a constituent party or

(II) a subsidiary of the Corporation is a constituent party and the Corporation issues shares of its capital stock pursuant to such merger or consolidation,

except any such merger or consolidation involving the Corporation or a subsidiary in which the shares of capital stock of the Corporation outstanding immediately prior to such merger or consolidation continue to represent, or are converted or exchanged for shares of capital stock which represent, immediately following such merger or consolidation at least a majority, by voting power, of the capital stock of (1) the surviving or resulting corporation or (2) if the surviving or resulting corporation is a wholly owned subsidiary of another corporation immediately following such merger or consolidation, the parent corporation of such surviving or resulting corporation (provided that, for the purpose of this Subsection 2(g)(i), all shares of Common Stock issuable upon exercise of Options outstanding immediately prior to such merger or consolidation or upon conversion of Convertible Securities outstanding immediately prior to such merger or consolidation shall be deemed to be outstanding immediately prior to such merger or consolidation and, if applicable, converted or exchanged in such merger or consolidation on the same terms as the actual outstanding shares of Common Stock are converted or exchanged); or

(B) the sale, lease, transfer, exclusive license or other disposition, in a single transaction or series of related transactions, by the Corporation or any subsidiary of the Corporation of all or substantially all the assets of the Corporation and its subsidiaries taken as a whole except where such sale, lease, transfer or other disposition is to a wholly owned subsidiary of the Corporation.

(ii) The Corporation shall not have the power to effect any transaction constituting a Deemed Liquidation Event pursuant to Subsection 2(g)(i)(A)(I) above unless the agreement or plan of merger or consolidation provides that the consideration payable to the stockholders of the Corporation shall be allocated among the holders of capital stock of the Corporation in accordance with Subsections (a), (b), (c), (d), (e), and (f) above.

11

(iii) In the event of a Deemed Liquidation Event pursuant to Subsection 2(g)(i)(A)(II) or 2(g)(i)(B) above, if the Corporation does not effect a dissolution of the Corporation under the General Corporation Law of the State of Delaware within sixty (60) days after such Deemed Liquidation Event, then (A) the Corporation shall deliver a written notice to each holder of Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock, Series D Preferred Stock and Series E Preferred Stock no later than the sixtieth (60<sup>th</sup>) day after the Deemed Liquidation Event advising such holders of their right (and the requirements to be met to secure such right) pursuant to the terms of the following clause (B) to require the redemption of such shares of Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock, Series D Preferred Stock and Series E Preferred Stock, and (B) if the holders of at least a majority (50%) of the Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock, Series D Preferred Stock and Series E Preferred Stock then outstanding, voting together as a class, so request in a written instrument delivered to the Corporation not later than seventy-five (75) days after such Deemed Liquidation Event, the Corporation shall use the consideration received by the Corporation for such Deemed Liquidation Event (net of any retained liabilities associated with the assets sold or technology licensed, as determined in good faith by the Board of Directors of the Corporation) (the “**Net Proceeds**”) to redeem, to the extent legally available therefor, on the 90th day after such Deemed Liquidation Event (the “**Liquidation Redemption Date**”), on a pari passu basis, all outstanding shares of Series A Preferred Stock at a price per share equal to the applicable Series A Liquidation Amount, all outstanding shares of Series B Preferred Stock at a price per share equal to the applicable Series B Liquidation Amount, all outstanding shares of Series C Preferred Stock at a price per share equal to the applicable Series C Liquidation Amount, all outstanding shares of Series D Preferred Stock at a price per share equal to the applicable Series D Liquidation Amount, and all outstanding shares of Series E Preferred Stock at a price per share equal to the applicable Series E Liquidation Amount. In the event of a redemption pursuant to the preceding sentence, if the Net Proceeds are not sufficient to redeem all outstanding shares of Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock, Series D Preferred Stock and Series E Preferred Stock, or if the Corporation does not have sufficient lawfully available funds to effect such redemption, the Corporation shall redeem a *pro rata* portion of each holder’s shares of Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock, Series D Preferred Stock and Series E Preferred Stock to the fullest extent of such Net Proceeds or such lawfully available funds, as the case may be, and, where such redemption is limited by the amount of lawfully available funds, the Corporation shall deem the remaining shares to have been redeemed as soon as practicable after the Corporation has funds legally available therefor. The provisions of Subsections 6(b) through 6(e) below shall apply, with such necessary changes in the details thereof as are necessitated by the context, to the redemption of the Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock, Series D Preferred Stock and Series E Preferred Stock pursuant to this Subsection 2(g)(iii). Prior to the distribution or redemption provided for in this Subsection 2(g)(iii), the Corporation shall not expend or dissipate the consideration received for such Deemed Liquidation Event, except to discharge expenses incurred in the ordinary course of business.

12

(iv) The amount deemed paid or distributed to the holders of capital stock of the Corporation upon any such merger, consolidation, sale, transfer, exclusive license, other disposition or redemption shall be the cash or the value of the property, rights or securities paid or distributed to such holders by the Corporation or the acquiring person, firm or other entity. The value of such property, rights or securities shall be determined in good faith by the Board of Directors of the Corporation.

3. Voting.

(a) Provided that any shares of Series E Preferred Stock (subject to appropriate adjustment in the event of any dividend, stock split, combination or other similar recapitalization affecting such shares) remain outstanding, then on any matter presented to the stockholders of the Corporation for their action or consideration at any meeting of stockholders of the Corporation (or by written consent of stockholders in lieu of meeting), each holder of outstanding shares of Series E Preferred Stock shall be entitled to cast the number of votes equal to the number of whole shares of Common Stock into which the shares of Series E Preferred Stock held by such holder are convertible as of the record date for determining stockholders entitled to vote on such matter. Except as provided by law or otherwise provided herein, holders of Series E Preferred Stock shall vote together with the holders of Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock, Series D Preferred Stock, any other series of Preferred Stock and Common Stock, as a single class.

(b) Provided that any shares of Series D Preferred Stock (subject to appropriate adjustment in the event of any dividend, stock split, combination or other similar recapitalization affecting such shares) remain outstanding, then on any matter presented to the stockholders of the Corporation for their action or consideration at any meeting of stockholders of

the Corporation (or by written consent of stockholders in lieu of meeting), each holder of outstanding shares of Series D Preferred Stock shall be entitled to cast the number of votes equal to the number of whole shares of Common Stock into which the shares of Series D Preferred Stock held by such holder are convertible as of the record date for determining stockholders entitled to vote on such matter. Except as provided by law or otherwise provided herein, holders of Series D Preferred Stock shall vote together with the holders of Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock, Series E Preferred Stock, any other series of Preferred Stock and Common Stock, as a single class.

(c) Provided that any shares of Series C Preferred Stock (subject to appropriate adjustment in the event of any dividend, stock split, combination or other similar recapitalization affecting such shares) remain outstanding, then on any matter presented to the stockholders of the Corporation for their action or consideration at any meeting of stockholders of the Corporation (or by written consent of stockholders in lieu of meeting), each holder of outstanding shares of Series C Preferred Stock shall be entitled to cast the number of votes equal to the number of whole shares of Common Stock into which the shares of Series C Preferred Stock held by such holder are convertible as of the record date for determining stockholders entitled to vote on such matter. Except as provided by law or otherwise provided herein, holders

13

of Series C Preferred Stock shall vote together with the holders of Series A Preferred Stock, Series B Preferred Stock, Series D Preferred Stock, Series E Preferred Stock, any other series of Preferred Stock and Common Stock, as a single class.

(d) Provided that any shares of Series B Preferred Stock (subject to appropriate adjustment in the event of any dividend, stock split, combination or other similar recapitalization affecting such shares) remain outstanding, then on any matter presented to the stockholders of the Corporation for their action or consideration at any meeting of stockholders of the Corporation (or by written consent of stockholders in lieu of meeting), each holder of outstanding shares of Series B Preferred Stock shall be entitled to cast the number of votes equal to the number of whole shares of Common Stock into which the shares of Series B Preferred Stock held by such holder are convertible as of the record date for determining stockholders entitled to vote on such matter. Except as provided by law or otherwise provided herein, holders of Series B Preferred Stock shall vote together with the holders of Series A Preferred Stock, Series C Preferred Stock, Series D Preferred Stock, Series E Preferred Stock, any other series of Preferred Stock and Common Stock, as a single class.

(e) Provided that any shares of Series A Preferred Stock (subject to appropriate adjustment in the event of any dividend, stock split, combination or other similar recapitalization affecting such shares) remain outstanding, then on any matter presented to the stockholders of the Corporation for their action or consideration at any meeting of stockholders of the Corporation (or by written consent of stockholders in lieu of meeting), each holder of outstanding shares of Series A Preferred Stock shall be entitled to cast the number of votes equal to the number of whole shares of Common Stock into which the shares of Series A Preferred Stock held by such holder are convertible as of the record date for determining stockholders entitled to vote on such matter. Except as provided by law or otherwise provided herein, holders of Series A Preferred Stock shall vote together with the holders of Series B Preferred Stock, Series C Preferred Stock, Series D Preferred Stock, Series E Preferred Stock, any other series of Preferred Stock and Common Stock, as a single class.

(f) The holders of record of the shares of Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock, Series D Preferred Stock and Series E Preferred Stock, as a single class, shall be entitled to elect six (6) directors of the Corporation (the “Preferred Directors”). Any director elected as provided in the preceding sentence may be removed without cause by, and only by, the affirmative vote of the holders of the shares of the class or series of stock entitled to elect such director or directors, given either at a special meeting of such stockholders duly called for that purpose or pursuant to a written consent of stockholders. At any meeting held for the purpose of electing a director, the presence in person or by proxy of the holders of a majority of the outstanding shares of the class or series entitled to elect such director shall constitute a quorum for the purpose of electing such director. A vacancy in any directorship filled by the holders of such class or series shall be filled only by vote or written consent in lieu of a meeting of the holders of such class or series or by any remaining director or directors elected by the holders of such class or series pursuant to this Subsection 3(f).

14

(g) At any time when any shares of Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock, Series D Preferred Stock or Series E Preferred Stock (subject to appropriate adjustment in the event of any dividend, stock split, combination or other similar recapitalization affecting such shares) are outstanding, except where the vote or written consent of the holders of a greater number of shares of the Corporation is required by law or by the Restated Certificate of Incorporation, and in addition to any other vote required by law or the Restated Certificate of Incorporation, without the written consent or affirmative vote of the holders of a majority of the Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock, Series D Preferred Stock and Series E Preferred Stock then outstanding, given in writing or by vote at a meeting, consenting or voting (as the case may be) together as a single class, the Corporation shall not, either directly or by amendment, merger, consolidation, capital reorganization or otherwise:

- (i) Alter, repeal or change the rights, preferences or privileges common to the Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock, Series D Preferred Stock or Series E Preferred Stock through a merger, consolidation, capital reorganization or otherwise;
- (ii) Amend or repeal any provision of, add any provision to or alter, the Corporation’s Restated Certificate of Incorporation or By-laws, whether by merger, consolidation or otherwise;
- (iii) Create any additional class or series of shares of stock, unless the same ranks junior to the Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock, Series D Preferred Stock and Series E Preferred Stock with respect to the distribution of assets on the liquidation, dissolution or winding up of the Corporation and with respect to the payment of dividends and redemption rights, or increase the authorized number of shares of Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock, Series D Preferred Stock or Series E Preferred Stock, or increase the authorized number of shares of any additional class or series of shares of stock unless the same ranks junior to the Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock, Series D Preferred Stock and Series E Preferred Stock with respect to the distribution of assets on the liquidation, dissolution or winding up of the Corporation and with respect to the payment of dividends and redemption rights, or create or authorize any obligation or security convertible into shares of any class or series of stock unless the same ranks junior to the Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock, Series D Preferred Stock and Series E Preferred Stock with respect to the distribution of assets on the liquidation, dissolution or winding up of the Corporation and with respect to the payment of dividends and redemption rights;
- (iv) Effect a change of control, liquidation, merger, reincorporation, recapitalization, or sale or other transfer of a substantial part of the Corporation’s or any of its subsidiary’s assets other than sales of inventory in the ordinary course of business; or

15

(v) Effect any acquisition of the capital stock of another entity which results in the consolidation of that entity into the results of operations of the Corporation or any acquisition of all or substantially all of the assets of another entity.

(h) At any time when any shares of Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock, Series D Preferred Stock or Series E Preferred Stock (subject to appropriate adjustment in the event of any dividend, stock split, combination or other similar recapitalization affecting such shares) are outstanding, in addition to any other vote required by law or the Restated Certificate of Incorporation, without the written consent or affirmative vote of either (X) the holders of a majority of the Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock, Series D Preferred Stock and Series E Preferred Stock, given in writing or by vote at a meeting, consenting or voting (as the case may be) together as a single class or (Y) approval by the Board of Directors, including the affirmative vote of at least four of the Preferred Directors, the Corporation shall not, either directly or by amendment, merger, consolidation, capital reorganization or otherwise:

- (i) Incur or permit any subsidiary of the Corporation to incur aggregate indebtedness in excess of \$250,000, other than trade credit incurred in the ordinary course of business;
- (ii) Create a new plan or arrangement for the grant of stock options or the issuance of restricted stock or increases the number of shares available under such plan or arrangement;
- (iii) Increase or decrease the authorized number of directors constituting the Board of Directors; or
- (iv) Pay or declare any dividend or distribution on any shares of the Corporation’s capital stock (except dividends payable solely in shares of Common Stock) or apply any of the Corporation’s assets to the redemption or repurchase of the Corporation’s capital stock (except for redemption of the Series A Preferred Stock, Series B Preferred Stock, Series C

(i) So long as any shares of Series A Preferred Stock remain outstanding, the Corporation shall not, without the vote or written consent by the holders of at least sixty-six percent (66%) of the then outstanding shares of the Series A Preferred Stock, (i) amend, alter, repeal or waive any provisions of this Restated Certificate of Incorporation so as to alter or amend the rights, preferences, privileges or limitations of the Series A Preferred Stock (whether by merger, consolidation or otherwise) so as to adversely affect the relative rights, preferences, privileges or limitations of the Series A Preferred Stock in a manner substantially different than the Series B Preferred Stock, Series C Preferred Stock, Series D Preferred Stock or Series E Preferred Stock or (ii) amend Subsection 7.

16

(j) So long as any shares of Series B Preferred Stock remain outstanding, the Corporation shall not, without the vote or written consent by the holders of at least sixty-six percent (66%) of the then outstanding shares of the Series B Preferred Stock, (i) amend, alter, repeal or waive any provisions of this Restated Certificate of Incorporation so as to alter or amend the rights, preferences, privileges or limitations of the Series B Preferred Stock (whether by merger, consolidation or otherwise) so as to adversely affect the relative rights, preferences, privileges or limitations of the Series B Preferred Stock in a manner substantially different than the Series A Preferred Stock, Series C Preferred Stock, Series D Preferred Stock or Series E Preferred Stock or (ii) amend Subsection 7.

(k) So long as any shares of Series C Preferred Stock remain outstanding, the Corporation shall not, without the vote or written consent by the holders of at least seventy-five percent (75%) of the then outstanding shares of the Series C Preferred Stock, (i) amend, alter, repeal or waive any provisions of this Restated Certificate of Incorporation so as to alter or amend the rights, preferences, privileges or limitations of the Series C Preferred Stock (whether by merger, consolidation or otherwise) so as to adversely affect the relative rights, preferences, privileges or limitations of the Series C Preferred Stock in a manner substantially different than the Series A Preferred Stock, Series B Preferred Stock, Series D Preferred Stock or Series E Preferred Stock or (ii) amend Subsection 7.

(l) So long as any shares of Series D Preferred Stock remain outstanding, the Corporation shall not, without the vote or written consent by the holders of a majority of the then outstanding shares of the Series D Preferred Stock, (i) amend, alter, repeal or waive any provisions of this Restated Certificate of Incorporation so as to alter or amend the rights, preferences, privileges or limitations of the Series D Preferred Stock (whether by merger, consolidation or otherwise) so as to adversely affect the relative rights, preferences, privileges or limitations of the Series D Preferred Stock in a manner substantially different than the Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock or Series E Preferred Stock or (ii) amend Subsection 7.

(m) So long as any shares of Series E Preferred Stock remain outstanding, the Corporation shall not, without the vote or written consent by the holders of a majority of the then outstanding shares of the Series E Preferred Stock, amend, alter, repeal or waive any provisions of this Restated Certificate of Incorporation so as to alter or amend the rights, preferences, privileges or limitations of the Series E Preferred Stock (whether by merger, consolidation or otherwise) so as to adversely affect the relative rights, preferences, privileges or limitations of the Series E Preferred Stock in a manner substantially different than the Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock or Series D Preferred Stock.

#### 4. Optional Conversion.

The holders of the Preferred Stock shall have conversion rights as follows (the “**Conversion Rights**”):

17

##### (a) Right to Convert.

(i) Each share of Series A Preferred Stock shall be convertible, at the option of the holder thereof, at any time and from time to time, and without the payment of additional consideration by the holder thereof, into such number of fully paid and nonassessable shares of Common Stock as is determined by dividing, as the case may be, (i) \$1.9445 by the Series A-1 Conversion Price (as defined below) in effect at the time of conversion and, (ii) \$2.905 by the Series A-2 Conversion Price (as defined below) in effect at the time of conversion. The “**Series A-1 Conversion Price**” shall initially be equal to the Series A-1 Original Issue Price. The “**Series A-2 Conversion Price**” shall initially be equal to the Series A-2 Original Issue Price. The “**Series A Preferred Conversion Price**” shall mean the Series A-1 Conversion Price and the Series A-2 Conversion Price as applicable. Such initial Series A Preferred Conversion Price, and the rate at which shares of Series A Preferred Stock may be converted into shares of Common Stock, shall be subject to adjustment as provided below.

(ii) Each share of Series B Preferred Stock shall be convertible, at the option of the holder thereof, at any time and from time to time, and without the payment of additional consideration by the holder thereof, into such number of fully paid and nonassessable shares of Common Stock as is determined by dividing (i) \$3.3232 by the Series B Conversion Price (as defined below) in effect at the time of conversion. The “**Series B Conversion Price**” shall initially be equal to the Series B Original Issue Price. Such initial Series B Conversion Price, and the rate at which shares of Series B Preferred Stock may be converted into shares of Common Stock, shall be subject to adjustment as provided below.

(iii) Each share of Series C Preferred Stock shall be convertible, at the option of the holder thereof, at any time and from time to time, and without the payment of additional consideration by the holder thereof, into such number of fully paid and nonassessable shares of Common Stock as is determined by dividing (i) \$3.6608 by the Series C Conversion Price (as defined below) in effect at the time of conversion. The “**Series C Conversion Price**” shall initially be equal to the Series C Original Issue Price. Such initial Series C Conversion Price, and the rate at which shares of Series C Preferred Stock may be converted into shares of Common Stock, shall be subject to adjustment as provided below.

(iv) Each share of Series D Preferred Stock shall be convertible, at the option of the holder thereof, at any time and from time to time, and without the payment of additional consideration by the holder thereof, into such number of fully paid and nonassessable shares of Common Stock as is determined by dividing (i) \$4.55 by the Series D Conversion Price (as defined below) in effect at the time of conversion. The “**Series D Conversion Price**” shall initially be equal to the Series D Original Issue Price. Such initial Series D Conversion Price, and the rate at which shares of Series D Preferred Stock may be converted into shares of Common Stock, shall be subject to adjustment as provided below.

(v) Each share of Series E Preferred Stock shall be convertible, at the option of the holder thereof, at any time and from time to time, and without the payment of

18

additional consideration by the holder thereof, into such number of fully paid and nonassessable shares of Common Stock as is determined by dividing (i) \$5.7712 by the Series E Conversion Price (as defined below) in effect at the time of conversion. The “**Series E Conversion Price**” shall initially be equal to the Series E Original Issue Price. Such initial Series E Conversion Price, and the rate at which shares of Series E Preferred Stock may be converted into shares of Common Stock, shall be subject to adjustment as provided below. The conversion price as then in effect with respect to each share of Preferred Stock is hereinafter referred to as the “**Conversion Price**.”

(vi) In the event of a notice of redemption of any shares of Preferred Stock pursuant to Section 6 hereof, the Conversion Rights of the shares designated for redemption shall terminate at the close of business on the last full day preceding the date fixed for redemption, unless the redemption price is not paid on such redemption date, in which case the Conversion Rights for such shares shall continue until such price is paid in full. In the event of a liquidation, dissolution or winding up of the Corporation or a Deemed Liquidation Event, the Conversion Rights shall terminate at the close of business on the last full day preceding the date fixed for the payment of any such amounts distributable on such event to the holders of Preferred Stock.

(b) Fractional Shares. No fractional shares of Common Stock shall be issued upon conversion of the Preferred Stock. In lieu of any fractional shares to which the holder would otherwise be entitled, the Corporation shall pay cash equal to such fraction multiplied by the fair market value of a share of Common Stock as determined in good faith by the Board of Directors of the Corporation. Whether or not fractional shares would be issuable upon such conversion shall be determined on the basis of the total number of shares of Preferred Stock the holder is at the time converting into Common Stock and the aggregate number of shares of Common Stock issuable upon such conversion.

##### (c) Mechanics of Conversion.

(i) In order for a holder of Preferred Stock to voluntarily convert shares of Preferred Stock into shares of Common Stock, such holder shall surrender the certificate or certificates for such shares of Preferred Stock (or, if such registered holder alleges that such certificate has been lost, stolen or destroyed, a lost certificate affidavit and agreement

reasonably acceptable to the Corporation to indemnify the Corporation against any claim that may be made against the Corporation on account of the alleged loss, theft or destruction of such certificate), at the office of the transfer agent for the Preferred Stock (or at the principal office of the Corporation if the Corporation serves as its own transfer agent), together with written notice that such holder elects to convert all or any number of the shares of the Preferred Stock represented by such certificate or certificates and, if applicable, any event on which such conversion is contingent. Such notice shall state such holder's name or the names of the nominees in which such holder wishes the certificate or certificates for shares of Common Stock to be issued. If required by the Corporation, certificates surrendered for conversion shall be endorsed or accompanied by a written instrument or instruments of transfer, in form satisfactory

to the Corporation, duly executed by the registered holder or his, her or its attorney duly authorized in writing. The close of business on the date of receipt by the transfer agent of such certificates (or lost certificate affidavit and agreement) and notice (or by the Corporation if the Corporation serves as its own transfer agent) shall be the time of conversion (the "**Conversion Time**"), and the shares of Common Stock issuable upon conversion of the shares represented by such certificate shall be deemed to be outstanding of record as of such date. The Corporation shall, as soon as practicable after the Conversion Time, issue and deliver at such office to such holder of Preferred Stock, or to his, her or its nominees, a certificate or certificates for the number of shares of Common Stock to which such holder shall be entitled, together with cash in lieu of any fraction of a share.

(ii) The Corporation shall at all times when the Preferred Stock shall be outstanding, reserve and keep available out of its authorized but unissued stock, for the purpose of effecting the conversion of the Preferred Stock, such number of its duly authorized shares of Common Stock as shall from time to time be sufficient to effect the conversion of all outstanding Preferred Stock; and if at any time the number of authorized but unissued shares of Common Stock shall not be sufficient to effect the conversion of all then outstanding shares of Preferred Stock, the Corporation shall take such corporate action as may be necessary to increase its authorized but unissued shares of Common Stock to such number of shares as shall be sufficient for such purposes, including, without limitation, engaging in best efforts to obtain the requisite stockholder approval of any necessary amendment to this Restated Certificate of Incorporation. Before taking any action which would cause an adjustment reducing the applicable Conversion Price below the then par value of the shares of Common Stock issuable upon conversion of the Preferred Stock, the Corporation will take any corporate action which may, in the opinion of its counsel, be necessary in order that the Corporation may validly and legally issue fully paid and nonassessable shares of Common Stock at such adjusted Conversion Price.

(iii) All shares of Preferred Stock which shall have been surrendered for conversion as herein provided shall no longer be deemed to be outstanding and all rights with respect to such shares, including the rights, if any, to receive notices and to vote, shall immediately cease and terminate at the Conversion Time, except only the right of the holders thereof to receive shares of Common Stock in exchange therefor and to receive payment of any dividends declared but unpaid thereon. Any shares of Preferred Stock so converted shall be retired and cancelled and shall not be reissued as shares of such series, and the Corporation (without the need for stockholder action) may from time to time take such appropriate action as may be necessary to reduce the authorized number of shares of Preferred Stock accordingly.

(iv) Upon any such conversion, no adjustment to the applicable Conversion Price shall be made for any declared but unpaid dividends on the Preferred Stock surrendered for conversion or on the Common Stock delivered upon conversion.

(v) The Corporation shall pay any and all issue and other similar taxes that may be payable in respect of any issuance or delivery of shares of Common Stock upon

conversion of shares of Preferred Stock pursuant to this Section 4. The Corporation shall not, however, be required to pay any tax which may be payable in respect of any transfer involved in the issuance and delivery of shares of Common Stock in a name other than that in which the shares of Preferred Stock so converted were registered, and no such issuance or delivery shall be made unless and until the person or entity requesting such issuance has paid to the Corporation the amount of any such tax or has established, to the satisfaction of the Corporation, that such tax has been paid.

(d) Adjustments to Conversion Price for Diluting Issues.

(i) Special Definitions. For purposes of this Section 4, the following definitions shall apply:

(A) "**Option**" shall mean rights, options or warrants to subscribe for, purchase or otherwise acquire Common Stock or Convertible Securities.

(B) "**Series E Original Issue Date**" shall mean the date on which the first share of Series E Convertible Preferred Stock was issued.

(C) "**Convertible Securities**" shall mean any evidences of indebtedness, shares or other securities directly or indirectly convertible into or exchangeable for Common Stock, but excluding Options.

(D) "**Additional Shares of Common Stock**" shall mean all shares of Common Stock issued (or, pursuant to Subsection 4(d)(iii) below, deemed to be issued) by the Corporation after the Series E Original Issue Date, other than the following ("**Exempted Securities**"):

(I) shares of Common Stock issued or deemed issued as a dividend or distribution on Preferred Stock;

(II) shares of Common Stock issued or issuable by reason of a dividend, stock split, split-up or other distribution on shares of Common Stock that is covered by Subsection 4(e), 4(f) or 4(g) below;

(III) shares of Common Stock issued or deemed issued to employees or directors of, or consultants to, the Corporation or any of its subsidiaries pursuant to a plan, agreement or arrangement approved by the Board of Directors of the Corporation, including at least four of the Preferred Directors.

(IV) shares of Common Stock or Convertible Securities actually issued upon the exercise of Options

outstanding as of the Series E Original Issue Date or shares of Common Stock actually issued upon the conversion or exchange of Convertible Securities outstanding as of the Series E Original Issue Date, in each case provided such issuance is pursuant to the terms of such Option or Convertible Security; or

(V) shares of Common Stock issued or issuable to banks, equipment lessors or other financial institutions, or to real property lessors, pursuant to a bona fide debt financing, equipment leasing or real property leasing transaction approved by the Board of Directors of the Corporation, including at least four of the Preferred Directors.

(ii) No Adjustment of Conversion Price. No adjustment in the applicable Conversion Price shall be made as the result of the issuance of Additional Shares of Common Stock if: (a) the consideration per share (determined pursuant to Subsection 4(d)(v)) for such Additional Shares of Common Stock issued or deemed to be issued by the Corporation is equal to or greater than the applicable Conversion Price in effect immediately prior to the issuance or deemed issuance of such Additional Shares of Common Stock, or (b) prior to such issuance or deemed issuance, the Corporation receives written notice from the holders of a majority of the Preferred Stock then outstanding, voting together as a single class, on an as converted basis, agreeing that no such adjustment shall be made as the result of the issuance or deemed issuance of such Additional Shares of Common Stock; provided, however, that with respect to any issuance or deemed issuance of Additional Shares of Common Stock that would result in an adjustment of the Conversion Price of the Series C Preferred Stock (and would not otherwise result in an adjustment of the Series A Preferred Stock or the Series B Preferred Stock), no adjustment to the Conversion Price of the Series C Preferred Stock shall be made if the Corporation receives, in lieu of and not in addition to the written consent of a majority of the Preferred Stock, written notice from the holders of at least seventy-five percent (75%) of the Series C Preferred Stock then outstanding, voting as a separate class on an as converted basis, agreeing that no such adjustment shall be made as the result of the issuance or deemed issuance of such Additional Shares of Common Stock; and provided, further, that with respect to any issuance or deemed issuance of Additional Shares of Common Stock that would result in an adjustment of the Conversion Price of

the Series D Preferred Stock, no adjustment to the Conversion Price of the Series D Preferred Stock shall be made if the Corporation receives, in lieu of and not in addition to the written consent of a majority of the Preferred Stock, written notice from the holders of at least a majority of the Series D Preferred Stock then outstanding, voting as a separate class on an as converted basis, agreeing that no such adjustment shall be made as the result of the issuance or deemed issuance of such Additional Shares of Common Stock; provided, further, that with respect to any issuance or deemed issuance of Additional Shares of Common Stock that would result in an adjustment of the Conversion Price of the Series E Preferred Stock, no adjustment to the Conversion Price of the Series E Preferred Stock

shall be made if the Corporation receives, in lieu of and not in addition to the written consent of a majority of the Preferred Stock, written notice from the holders of at least a majority of the Series E Preferred Stock then outstanding, voting as a separate class on an as converted basis, agreeing that no such adjustment shall be made as the result of the issuance or deemed issuance of such Additional Shares of Common Stock.

(iii) Deemed Issue of Additional Shares of Common Stock.

(A) If the Corporation at any time or from time to time after the Series E Original Issue Date shall issue any Options or Convertible Securities (excluding Options or Convertible Securities which, upon exercise, conversion or exchange thereof, would entitle the holder thereof to receive Exempted Securities pursuant to Subsections 4(d)(i)(D)(I), (II), (III), (IV) or (V)) or shall fix a record date for the determination of holders of any class of securities entitled to receive any such Options or Convertible Securities, then the maximum number of shares of Common Stock (as set forth in the instrument relating thereto, assuming the satisfaction of any conditions to exercisability, convertibility or exchangeability but without regard to any provision contained therein for a subsequent adjustment of such number) issuable upon the exercise of such Options or, in the case of Convertible Securities and Options therefor, the conversion or exchange of such Convertible Securities, shall be deemed to be Additional Shares of Common Stock issued as of the time of such issue or, in case such a record date shall have been fixed, as of the close of business on such record date.

(B) If the terms of any Option or Convertible Security, the issuance of which resulted in an adjustment to the applicable Conversion Price pursuant to the terms of Subsection 4(d)(iv) below, are revised (either automatically pursuant to the provisions contained therein or as a result of an amendment to such terms) to provide for either (1) any increase or decrease in the number of shares of Common Stock issuable upon the exercise, conversion or exchange of any such Option or Convertible Security or (2) any increase or decrease in the consideration payable to the Corporation upon such exercise, conversion or exchange, then, effective upon such increase or decrease becoming effective, the applicable Conversion Price computed upon the original issue of such Option or Convertible Security (or upon the occurrence of a record date with respect thereto) shall be readjusted to such Conversion Price as would have obtained had such revised terms been in effect upon the original date of issuance of such Option or Convertible Security. Notwithstanding the foregoing, no adjustment pursuant to this clause (B) shall have the effect of increasing the applicable Conversion Price to an amount which exceeds the lower of (i) the applicable Conversion Price on the original adjustment date, or (ii) the applicable Conversion Price that would have resulted from any issuances of Additional Shares of Common Stock between the original adjustment date and such readjustment date.

(C) If the terms of any Option or Convertible Security (excluding Options or Convertible Securities which, upon exercise, conversion or exchange thereof, would entitle the holder thereof to receive Exempted Securities pursuant to Subsections 4(d)(i)(D)(I), (II), (III), (IV) or (V)), the issuance of which did not result in an adjustment to the

applicable Conversion Price pursuant to the terms of Subsection 4(d)(iv) below (either because the consideration per share (determined pursuant to Subsection 4(d)(v) hereof) of the Additional Shares of Common Stock subject thereto was equal to or greater than the applicable Conversion Price then in effect, or because such Option or Convertible Security was issued before the Series E Original Issue Date), are revised after the Series E Original Issue Date (either automatically pursuant to the provisions contained therein or as a result of an amendment to such terms) to provide for either (1) any increase or decrease in the number of shares of Common Stock issuable upon the exercise, conversion or exchange of any such Option or Convertible Security or (2) any increase or decrease in the consideration payable to the Corporation upon such exercise, conversion or exchange, then such Option or Convertible Security, as so amended, and the Additional Shares of Common Stock subject thereto (determined in the manner provided in Subsection 4(d)(iii)(A) above) shall be deemed to have been issued effective upon such increase or decrease becoming effective. If the change in such Option or Convertible Security causes an adjustment pursuant to this provision and such Option or Convertible Security is then further changed as a result of the adjustments made pursuant to this provision, no further adjustment shall be made hereunder as a result of the further automatic change in such Option or Convertible Security.

(D) Upon the expiration or termination of any unexercised Option or unconverted or unexchanged Convertible Security which resulted (either upon its original issuance or upon a revision of its terms) in an adjustment to the applicable Conversion Price pursuant to the terms of Subsection 4(d)(iv) below, the applicable Conversion Price shall be readjusted to such Conversion Price as would have obtained had such Option or Convertible Security never been issued.

(iv) Adjustment of Conversion Price Upon Issuance of Additional Shares of Common Stock. In the event the Corporation shall at any time after the Series E Original Issue Date issue Additional Shares of Common Stock (including Additional Shares of Common Stock deemed to be issued pursuant to Subsection 4(d)(iii)), without consideration or for a consideration per share less than the applicable Conversion Price in effect immediately prior to such issue, then the applicable Conversion Price shall be reduced, concurrently with such issue, to a price (calculated to the nearest one-hundredth of a cent) determined in accordance with the following formula:

$$CP_2 = CP_1 * (A + B) \div (A + C)$$

For purposes of the foregoing formula, the following definitions shall apply:

- (A)  $CP_2$  shall mean the Conversion Price in effect immediately after such issue of Additional Shares of Common Stock;
- (B)  $CP_1$  shall mean the Conversion Price in effect immediately prior to such issue of Additional Shares of Common Stock;

(C) "A" shall mean the number of shares of Common Stock outstanding and deemed outstanding immediately prior to such issue of Additional Shares of Common Stock (treating for this purpose as outstanding all shares of Common Stock issuable upon exercise of Options outstanding immediately prior to such issue or upon conversion of Convertible Securities (including the Preferred Stock) outstanding immediately prior to such issue);

(D) "B" shall mean the number of shares of Common Stock that would have been issued if such Additional Shares of Common Stock had been issued at a price per share equal to  $CP_1$  (determined by dividing the aggregate consideration received by the Corporation in respect of such issue by  $CP_1$ ); and

(E) "C" shall mean the number of such Additional Shares of Common Stock issued in such transaction.

(v) Determination of Consideration. For purposes of this Subsection 4(d), the consideration received by the Corporation for the issue of any Additional Shares of Common Stock shall be computed as follows:

(A) Cash and Property: Such consideration shall:

- (I) insofar as it consists of cash, be computed at the aggregate amount of cash received by the Corporation, excluding amounts paid or payable for accrued interest;
- (II) insofar as it consists of property other than cash, be computed at the fair market value thereof at the time of such issue, as determined in good faith by the Board of Directors of the Corporation; and
- (III) in the event Additional Shares of Common Stock are issued together with other shares or securities or other assets of the Corporation for consideration which covers both, be the proportion of such consideration so received, computed as provided in clauses (I) and (II) above, as determined in good faith by the Board of Directors of the Corporation.

(B) Options and Convertible Securities. The consideration per share received by the Corporation for Additional Shares of Common Stock deemed to have been issued pursuant to Subsection 4(d)(iii), relating to Options and Convertible Securities, shall be determined by dividing

25

- (I) the total amount, if any, received or receivable by the Corporation as consideration for the issue of such Options or Convertible Securities, plus the minimum aggregate amount of additional consideration (as set forth in the instruments relating thereto, without regard to any provision contained therein for a subsequent adjustment of such consideration) payable to the Corporation upon the exercise of such Options or the conversion or exchange of such Convertible Securities, or in the case of Options for Convertible Securities, the exercise of such Options for Convertible Securities and the conversion or exchange of such Convertible Securities, by
- (II) the maximum number of shares of Common Stock (as set forth in the instruments relating thereto, without regard to any provision contained therein for a subsequent adjustment of such number) issuable upon the exercise of such Options or the conversion or exchange of such Convertible Securities.

(vi) Multiple Closing Dates. In the event the Corporation shall issue on more than one date Additional Shares of Common Stock that are a part of one transaction or a series of related transactions and that would result in an adjustment to the applicable Conversion Price pursuant to the terms of Subsection 4(d)(iv) above, and such issuance dates occur within a period of no more than ninety (90) days from the first such issuance to the final such issuance, then, upon the final such issuance, the applicable Conversion Price shall be readjusted to give effect to all such issuances as if they occurred on the date of the first such issuance (and without giving additional effect to any adjustments as a result of any subsequent issuances within such period).

(e) Adjustment for Stock Splits and Combinations. If the Corporation shall at any time or from time to time after the Series E Original Issue Date effect a subdivision of the outstanding Common Stock without a comparable subdivision of the Preferred Stock or combine the outstanding shares of Preferred Stock without a comparable combination of the Common Stock, the applicable Conversion Price in effect immediately before that subdivision or combination shall be proportionately decreased so that the number of shares of Common Stock issuable on conversion of each share of such series shall be increased in proportion to such increase in the aggregate number of shares of Common Stock outstanding. If the Corporation shall at any time or from time to time after the Series E Original Issue Date combine the outstanding shares of Common Stock without a comparable combination of the Preferred Stock or effect a subdivision of the outstanding shares of Preferred Stock without a comparable

26

subdivision of the Common Stock, the applicable Conversion Price in effect immediately before the combination or subdivision shall be proportionately increased so that the number of shares of Common Stock issuable on conversion of each share of such series shall be decreased in proportion to such decrease in the aggregate number of shares of Common Stock outstanding. Any adjustment under this subsection shall become effective at the close of business on the date the subdivision or combination becomes effective.

(f) Adjustment for Certain Dividends and Distributions. In the event the Corporation at any time or from time to time after the Series E Original Issue Date shall make or issue, or fix a record date for the determination of holders of Common Stock entitled to receive, a dividend or other distribution payable on the Common Stock in additional shares of Common Stock, then and in each such event the applicable Conversion Price in effect immediately before such event shall be decreased as of the time of such issuance or, in the event such a record date shall have been fixed, as of the close of business on such record date, by multiplying such Conversion Price then in effect by a fraction:

- (1) the numerator of which shall be the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date, and
- (2) the denominator of which shall be the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date plus the number of shares of Common Stock issuable in payment of such dividend or distribution;

provided, however, that if such record date shall have been fixed and such dividend is not fully paid or if such distribution is not fully made on the date fixed therefor, the applicable Conversion Price shall be recomputed accordingly as of the close of business on such record date and thereafter such Conversion Price shall be adjusted pursuant to this subsection as of the time of actual payment of such dividends or distributions; and provided further, however, that no such adjustment shall be made if the holders of Preferred Stock simultaneously receive (i) a dividend or other distribution of shares of Common Stock in a number equal to the number of shares of Common Stock as they would have received if all outstanding shares of Preferred Stock had been converted into Common Stock on the date of such event or (ii) a dividend or other distribution of shares of Preferred Stock which are convertible, as of the date of such event, into such number of shares of Common Stock as is equal to the number of additional shares of Common Stock being issued with respect to each share of Common Stock in such dividend or distribution.

(g) Adjustments for Other Dividends and Distributions. In the event the Corporation at any time or from time to time after the Series E Original Issue Date shall make or issue, or fix a record date for the determination of holders of capital stock of the Corporation entitled to receive a dividend or other distribution payable in securities of the Corporation (other

27

than a distribution of shares of Common Stock in respect of outstanding shares of Common Stock) or in other property and the provisions of Section 1 do not apply to such dividend or distribution, then and in each such event the holders of Preferred Stock shall receive, simultaneously with the distribution to the holders of such capital stock, a dividend or other distribution of such securities or other property in an amount equal to the amount of such securities or other property as they would have received if all outstanding shares of Preferred Stock had been converted into Common Stock on the date of such event.

(h) Adjustment for Merger or Reorganization, etc. Subject to the provisions of Subsection 2(f), if there shall occur any reorganization, recapitalization, reclassification, consolidation or merger involving the Corporation in which the Common Stock (but not the Preferred Stock) is converted into or exchanged for securities, cash or other property (other than a transaction covered by Subsections (e), (f) or (g) of this Section 4), then, following any such reorganization, recapitalization, reclassification, consolidation or merger, each share of Preferred Stock shall thereafter be convertible in lieu of the Common Stock into which it was convertible prior to such event into the kind and amount of securities, cash or other property which a holder of the number of shares of Common Stock of the Corporation issuable upon conversion of one share of Preferred Stock immediately prior to such reorganization, recapitalization, reclassification, consolidation or merger would have been entitled to receive pursuant to such transaction; and, in such case, appropriate adjustment (as determined in good faith by the Board of Directors of the Corporation) shall be made in the application of the provisions in this Section 4 with respect to the rights and interests thereafter of the holders of the Preferred Stock, to the end that the provisions set forth in this Section 4 (including provisions with respect to changes in and other adjustments of the applicable Conversion Price) shall thereafter be applicable, as nearly as reasonably may be, in relation to any securities or other property thereafter deliverable upon the conversion of the Preferred Stock.

(i) Certificate as to Adjustments. Upon the occurrence of each adjustment or readjustment of the applicable Conversion Price pursuant to this Section 4, the Corporation at its expense shall, as promptly as reasonably practicable but in any event not later than ten (10) days thereafter, compute such adjustment or readjustment in accordance with the terms hereof and furnish to each holder of Preferred Stock effected by such adjustment or readjustment a certificate setting forth such adjustment or readjustment (including the kind and amount of securities, cash or other property into which the Preferred Stock is convertible) and showing in detail the facts upon which such adjustment or readjustment is based. The Corporation shall, as promptly as reasonably practicable after the written request at any time of any holder of Preferred Stock (but in any event not later than ten (10) days thereafter), furnish or cause to be furnished to such holder a certificate setting forth (i) the applicable Conversion Price then in effect, and (ii) the number of shares of Common Stock and the amount, if any, of other securities, cash or property which then would be received upon the conversion of Preferred Stock.

28

(j) Notice of Record Date. In the event:



(i) the Corporation shall take a record of the holders of its Common Stock (or other stock or securities at the time issuable upon conversion of the Preferred Stock) for the purpose of entitling or enabling them to receive any dividend or other distribution, or to receive any right to subscribe for or purchase any shares of stock of any class or any other securities, or to receive any other right; or

(ii) of any capital reorganization of the Corporation, any reclassification of the Common Stock of the Corporation, or any Deemed Liquidation Event; or

(iii) of the voluntary or involuntary dissolution, liquidation or winding-up of the Corporation, then, and in each such case, the Corporation will send or cause to be sent to the holders of the Preferred Stock a notice specifying, as the case may be, (i) the record date for such dividend, distribution or right, and the amount and character of such dividend, distribution or right, or (ii) the effective date on which such reorganization, reclassification, consolidation, merger, transfer, dissolution, liquidation or winding-up is proposed to take place, and the time, if any is to be fixed, as of which the holders of record of Common Stock (or such other stock or securities at the time issuable upon the conversion of the Preferred Stock) shall be entitled to exchange their shares of Common Stock (or such other stock or securities) for securities or other property deliverable upon such reorganization, reclassification, consolidation, merger, transfer, dissolution, liquidation or winding-up, and the amount per share and character of such exchange applicable to the Preferred Stock and the Common Stock. Such notice shall be sent at least ten (10) days prior to the record date or effective date for the event specified in such notice. Any notice required by the provisions hereof to be given to a holder of shares of Preferred Stock shall be deemed sent to such holder if deposited in the United States mail, postage prepaid, and addressed to such holder at his, her or its address appearing on the books of the Corporation.

#### 5. Mandatory Conversion.

(a) Upon the earlier of (A) the closing of the sale of shares of Common Stock to the public, in a firm-commitment underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended, resulting in at least \$40 million of gross proceeds to the Corporation at a price per share of Common Stock of at least \$12.4211 (a “Qualified IPO”) or (B) a date specified by vote or written consent of the holders of a majority of the Preferred Stock then outstanding (the “Mandatory Conversion Date”), voting together as a single class, (i) all outstanding shares of Preferred Stock shall automatically be converted into shares of Common Stock, at the then effective conversion rate and (ii) such shares may not be reissued by the Corporation as shares of such series.

(b) All holders of record of shares of Preferred Stock shall be given written notice of the Mandatory Conversion Date and the place designated for mandatory conversion of all such shares of Preferred Stock pursuant to this Section 5. Such notice need not be given in advance of the occurrence of the Mandatory Conversion Date. Such notice shall be sent by first

29

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class or registered mail, postage prepaid, or given by electronic communication in compliance with the provisions of the General Corporation Law of the State of Delaware, to each record holder of Preferred Stock. Upon receipt of such notice, each holder of shares of Preferred Stock shall surrender his, her or its certificate or certificates for all such shares to the Corporation 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 5. On the Mandatory Conversion Date, all outstanding shares of Preferred Stock shall be deemed to have been converted into shares of Common Stock, which shall be deemed to be outstanding of record, and all rights with respect to the Preferred Stock so converted, 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, to receive certificates for the number of shares of Common Stock into which such Preferred Stock has been converted, and payment of any declared but unpaid dividends thereon. If so required by the Corporation, certificates surrendered for conversion shall be endorsed or accompanied by written instrument or instruments of transfer, in form satisfactory to the Corporation, duly executed by the registered holder or by his, her or its attorney duly authorized in writing. As soon as practicable after the Mandatory Conversion Date and the surrender of the certificate or certificates for Preferred Stock, the Corporation shall cause to be issued and delivered to such holder, or on his, her or its written order, a certificate or certificates for the number of full shares of Common Stock issuable on such conversion in accordance with the provisions hereof and cash as provided in Subsection 4(b) in respect of any fraction of a share of Common Stock otherwise issuable upon such conversion.

(c) All certificates evidencing shares of Preferred Stock which are required to be surrendered for conversion in accordance with the provisions hereof shall, from and after the Mandatory Conversion Date, be deemed to have been retired and cancelled and the shares of Preferred Stock represented thereby converted into Common Stock for all purposes, notwithstanding the failure of the holder or holders thereof to surrender such certificates on or prior to such date. Such converted Preferred Stock may not be reissued as shares of such Series, and the Corporation may thereafter take such appropriate action (without the need for stockholder action) as may be necessary to reduce the authorized number of shares of Preferred Stock accordingly.

#### 6. Redemption.

(a) Redemption. Shares of Preferred Stock shall be redeemed by the Corporation out of funds lawfully available therefor at a price equal to the Preferred Stock Original Issue Price per share, plus all accrued but unpaid dividends thereon, whether or not declared, together with any other dividends declared but unpaid thereon (the “Redemption Price”), in three annual installments commencing sixty (60) days after receipt by the Corporation at any time on or after March 22, 2018, from the holders of at least a majority of the Preferred Stock then outstanding, voting together as a class, of written notice requesting redemption of all shares of Preferred Stock (the date of each such installment being referred to as a “Redemption Date”). On each Redemption Date, the Corporation shall redeem, on a *pro rata* basis in

30

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accordance with the number of shares of Preferred Stock owned by each holder, that number of outstanding shares of Preferred Stock determined by dividing (i) the total number of shares of Preferred Stock outstanding immediately prior to such Redemption Date by (ii) the number of remaining Redemption Dates (including the Redemption Date to which such calculation applies); provided, however, that Excluded Shares (as such term is defined in subsection (b) of this Section 6) shall not be redeemed and shall be excluded from the calculations set forth in this sentence. If the Corporation does not have sufficient funds legally available to redeem on any Redemption Date all shares of Preferred Stock and of any other class or series of stock to be redeemed on such Redemption Date, the Corporation shall redeem a *pro rata* portion of each holder’s redeemable shares of such stock out of funds legally available therefor, based on the respective amounts which would otherwise be payable in respect of the shares to be redeemed if the legally available funds were sufficient to redeem all such shares, and shall redeem the remaining shares to have been redeemed as soon as practicable after the Corporation has funds legally available therefor.

(b) Redemption Notice. Written notice of the mandatory redemption (the “Redemption Notice”) shall be mailed, postage prepaid, to each holder of record of Preferred Stock, at its post office address last shown on the records of the Corporation, or given by electronic communication in compliance with the provisions of the General Corporation Law of the State of Delaware, not less than forty (40) days prior to each Redemption Date. Each Redemption Notice shall state:

- (I) the number of shares of Preferred Stock held by the holder that the Corporation shall redeem on the Redemption Date specified in the Redemption Notice;
- (II) the Redemption Date and the Redemption Price;
- (III) the date upon which the holder’s right to convert such shares terminates (as determined in accordance with Section 4(a)); and
- (IV) that the holder is to surrender to the Corporation, in the manner and at the place designated, his, her or its certificate or certificates representing the shares of Preferred Stock to be redeemed.

If the Corporation receives, on or prior to the 20th day after the date of delivery of the Redemption Notice to a holder of Preferred Stock, written notice from such holder that such holder elects to be excluded from the redemption provided in this Section 6, then the shares of Preferred Stock registered on the books of the Corporation in the name of such holder at the time of the Corporation’s receipt of such notice shall thereafter be “Excluded Shares”.

31

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(c) Surrender of Certificates; Payment. On or before the applicable Redemption Date, each holder of shares of Preferred Stock to be redeemed on such Redemption Date, unless such holder has exercised his, her or its right to convert such shares as provided in Section 4 hereof, shall surrender the certificate or certificates representing such shares to the Corporation, in the manner and at the place designated in the Redemption Notice, and thereupon the Redemption Price for such shares shall be payable to the order of the person whose name appears on such

certificate or certificates as the owner thereof, and each surrendered certificate shall be canceled and retired. In the event less than all of the shares of Preferred Stock represented by a certificate are redeemed, a new certificate representing the unredeemed shares of Preferred Stock shall promptly be issued to such holder.

(d) Rights Subsequent to Redemption. If the Redemption Notice shall have been duly given, and if on the applicable Redemption Date the Redemption Price payable upon redemption of the shares of Preferred Stock to be redeemed on such Redemption Date is paid or tendered for payment or deposited with an independent payment agent so as to be available therefor, then notwithstanding that the certificates evidencing any of the shares of Preferred Stock so called for redemption shall not have been surrendered, dividends with respect to such shares of Preferred Stock shall cease to accrue after such Redemption Date and all rights with respect to such shares shall forthwith after the Redemption Date terminate, except only the right of the holders to receive the Redemption Price without interest upon surrender of their certificate or certificates therefor.

(e) Redeemed or Otherwise Acquired Shares. Any shares of Preferred Stock which are redeemed or otherwise acquired by the Corporation or any of its subsidiaries shall be automatically and immediately canceled and shall not be reissued, sold or transferred. Neither the Corporation nor any of its subsidiaries may exercise any voting or other rights granted to the holders of Preferred Stock following redemption.

7. Renunciation of Business Opportunities Doctrine. To the maximum extent permitted from time to time under the General Corporation Law of the State of Delaware, the Corporation renounces any interest or expectancy of the Corporation in, or in being offered an opportunity to participate in, business opportunities that are from time to time presented to its officers, directors or stockholders, other than those officers, directors or stockholders who are employees of the Corporation. No amendment or repeal of this Section 7 shall apply to or have any effect on the liability or alleged liability of any officer, director or stockholder of the Corporation for or with respect to any opportunities of which such officer, director or stockholder becomes aware prior to such amendment or repeal. To the fullest extent permitted by law, any person purchasing or otherwise acquiring any interest in any shares of capital stock of the Corporation shall be deemed to have notice of and to have consented to the provisions of this Section 7. As used in this Section 7, "person" shall mean any individual, corporation, general or limited partnership, limited liability company, joint venture, trust association or any other entity.

*FIFTH:* The Corporation is to have perpetual existence.

32

*SIXTH:* For the management of the business and for the conduct of the affairs of the Corporation, and in further definition and not in limitation of the powers of the Corporation and of its directors and of its stockholders or any class thereof, as the case may be, conferred by the State of Delaware, it is further provided that:

a) The management of the business and the conduct of the affairs of the Corporation shall be vested in its Board of Directors. The number of directors which shall constitute the whole Board of Directors shall be fixed by, or in the manner provided in, the By-Laws. The phrase "whole Board" and the phrase "total number of directors" shall be deemed to have the same meaning, to wit, the total number of directors which the Corporation would have if there were no vacancies. No election of directors need be by written ballot.

b) After the original or other By-Laws of the Corporation have been adopted, amended or repealed, as the case may be, in accordance with the provisions of Section 109 of the General Corporation Law of the State of Delaware, and, after the Corporation has received any payment for any of its stock, the power to adopt, amend, or repeal the By-Laws of the Corporation may be exercised by the Board of Directors of the Corporation.

c) The books of the Corporation may be kept at such place within or without the State of Delaware as the By-Laws of the Corporation may provide or as may be designated from time to time by the Board of Directors of the Corporation.

*SEVENTH:* The Corporation shall, to the fullest extent permitted by Section 145 of the General Corporation Law of the State of Delaware, as the same may be amended and supplemented from time to time, indemnify and advance expenses to, (i) its directors and officers, and (ii) any person who at the request of the Corporation is or was serving as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, from and against any and all of the expenses, liabilities, or other matters referred to in or covered by said section as amended or supplemented (or any successor), provided, however, that except with respect to proceedings to enforce rights to indemnification, the By-Laws of the Corporation may provide that the Corporation shall indemnify any director, officer or such person in connection with a proceeding (or part thereof) initiated by such director, officer or such person only if such proceeding (or part thereof) was authorized by the Board of Directors of the Corporation. The Corporation, by action of its Board of Directors, may provide indemnification or advance expenses to employees and agents of the Corporation or other persons only on such terms and conditions and to the extent determined by the Board of Directors in its sole and absolute discretion. The indemnification provided for herein shall not be deemed exclusive of any other rights to which those indemnified may be entitled under any By-Law, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in their official capacity and as to action in another capacity while holding such office, and shall continue as to a person who has ceased to be a director, officer, employee, or agent and shall inure to the benefit of the heirs, executors and administrators of such a person.

33

*EIGHT:* No director of this Corporation shall be personally liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a director except to the extent that exemption from liability or limitation thereof is not permitted under the General Corporation Law of the State of Delaware as in effect at the time such liability or limitation thereof is determined. No amendment, modification or repeal of this Article shall apply to or have any effect on the liability or alleged liability of any director of the Corporation for or with respect to any acts or omissions of such director occurring prior to such amendment, modification or repeal. If the General Corporation Law of the State of Delaware is amended after approval by the stockholders of this Article to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director of the Corporation shall be eliminated or limited to the fullest extent permitted by the General Corporation Law of the State of Delaware, as so amended.

*NINETH:* Whenever a compromise or arrangement is proposed between this Corporation and its creditors or any class of them and/or between this Corporation and its stockholders or any class of them, any court of equitable jurisdiction within the State of Delaware may, on the application in a summary way of this Corporation or of any creditor or stockholder thereof or on the application of any receiver or receivers appointed for this Corporation under the provisions of Section 291 of Title 8 of the Delaware Code or on the application of trustees in dissolution or of any receiver or receivers appointed for this Corporation under the provisions of Section 279 of Title 8 of the Delaware Code, order a meeting of the creditors or class of creditors, and/or of the stockholders or class of stockholders of this Corporation, as the case may be, to be summoned in such manner as the said court directs. If a majority in number representing three-fourths (3/4) in value of the creditors or class of creditors, and/or of the stockholders or class of stockholders of this Corporation, as the case may be, agree to any compromise or arrangement and to any reorganization of this Corporation as consequence of such compromise or arrangement, the said compromise or arrangement and the said reorganization shall, if sanctioned by the court to which the said application has been made, be binding on all the creditors or class of creditors, and/or on all the stockholders or class of stockholders, of this Corporation, as the case may be, and also on this Corporation.

*TENTH:* From time to time any of the provisions of this Restated Certificate of Incorporation may be amended, altered or repealed, and other provisions authorized by the laws of the State of Delaware at the time in force may be added or inserted in the manner and at the time prescribed by said laws, and all rights at any time conferred upon the stockholders of the Corporation by this Restated Certificate of Incorporation are granted subject to the provisions of this Article.

*[The remainder of this page is intentionally left blank.]*

34

IN WITNESS WHEREOF, the Corporation has caused this Restated Certificate of Incorporation to be signed by its duly authorized officer this 22<sup>nd</sup> day of March, 2013.

T2 BIOSYSTEMS, INC.

By: /s/ John McDonough  
Name: John McDonough  
Title: President and Chief Executive Officer

**CERTIFICATE OF AMENDMENT  
TO THE  
RESTATED CERTIFICATE OF INCORPORATION  
OF  
T2 BIOSYSTEMS, INC.**

T2 Biosystems, Inc. (the "**Corporation**"), a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware, (the "**General Corporation Law**"),

DOES HEREBY CERTIFY AS FOLLOWS:

1. The name of the Corporation is T2 Biosystems, Inc. The original Certificate of Incorporation of the Corporation was filed with the Secretary of State of Delaware on April 27, 2006 under the name Bioplex Systems, Inc.
2. The Certificate of Incorporation of the Corporation was amended and restated, and a Restated Certificate of Incorporation was filed, on March 22, 2013 (the "**Restated Certificate of Incorporation**").
3. This Certificate of Amendment to the Restated Certificate of Incorporation was duly adopted by the Board of Directors and stockholders of the Corporation in accordance with the applicable provisions of Sections 141, 228 and 242 of the General Corporation Law of the State of Delaware.
4. The Restated Certificate of Incorporation is hereby amended by deleting the first paragraph of Article FOURTH in its entirety and by inserting the following in lieu thereof:

"The Corporation is authorized to issue two classes of stock to be designated, respectively, "**Common Stock**" and "**Preferred Stock**." The aggregate number of shares which the Corporation is authorized to issue is 51,491,117 shares, each with a par value of \$0.001 per share. 29,845,958 shares shall be Common Stock and 21,645,159 shares shall be Preferred Stock, each with the par value of \$0.001 per share. The Preferred Stock may be issued in one or more series, of which (i) one such series shall be designated the "**Series A-1 Convertible Preferred Stock**" and shall consist of 282,849 shares of Series A-1 Convertible Preferred Stock (the "**Series A-1 Preferred Stock**"), (ii) one such series shall be designated the "**Series A-2 Convertible Preferred Stock**" and shall consist of 1,717,728 shares of Series A-2 Convertible Preferred Stock (the "**Series A-2 Preferred Stock**," together with the Series A-1 Preferred Stock, the "**Series A Preferred Stock**"), (iii) one such series shall be designated the "**Series B Convertible Preferred Stock**" and shall consist of 3,523,765 shares of Series B Convertible Preferred Stock (the "**Series B Preferred Stock**"), (iv) one such series shall be designated the "**Series C Convertible Preferred Stock**" and shall consist of 4,085,125 shares of Series C Convertible Preferred Stock (the "**Series C Preferred Stock**"), (v) one such series shall be designated the "**Series D Convertible Preferred Stock**" and shall consist of 5,074,725 shares of Series D Convertible Preferred Stock (the "**Series D Preferred Stock**"), and (vi) one such series shall be designated the "**Series E Convertible Preferred Stock**" and shall consist of 6,960,967 shares of Series E Convertible Preferred Stock (the "**Series E Preferred Stock**"). The Board of Directors is authorized, subject to any limitations prescribed by law, to provide for the issuance of shares of Preferred Stock in series, and by filing a certificate pursuant to the applicable law of the State of Delaware (such certificate being hereafter referred to as a "**Preferred Stock Designation**"), to establish from time to time the number of shares to be included in each

such series, and to fix the designation, powers, preferences and rights of the shares of each such series and any qualifications, limitations or restrictions thereof. The number of authorized shares of Common Stock may be increased or decreased (but not below the number of shares of Common Stock then outstanding) by the affirmative vote of the holders of a majority of the capital stock of the Corporation entitled to vote (voting together as a single class on an as-if-converted basis), irrespective of the provisions of 242(b)(2) of the General Corporation Law of the State of Delaware. The holders of Common Stock are not entitled to vote separately as a class to increase or decrease the number of authorized shares of Common Stock."

[Remainder of Page Intentionally Left Blank]

IN WITNESS WHEREOF, the Corporation has caused this Certificate of Amendment to the Restated Certificate of Incorporation to be signed by its duly authorized officer this 1st day of July, 2014.

By: /s/ John McDonough  
Name: John McDonough  
Title: President and Chief Executive Officer

## BIOPLEX SYSTEMS, INC.

## BY-LAWS

## ARTICLE I - STOCKHOLDERS

*Section 1. Annual Meeting.*

An annual meeting of the stockholders, for the election of directors to succeed those whose terms expire and for the transaction of such other business as may properly come before the meeting, shall be held at ten o'clock a.m. or such other time as is determined by the Board of Directors, on such date (other than a Saturday, Sunday or legal holiday) as is determined by the Board of Directors, which date shall be within thirteen (13) months subsequent to the later of the date of incorporation or the last annual meeting of stockholders, and at such place as the Board of Directors shall each year fix.

*Section 2. Special Meetings.*

Subject to the rights of the holders of any class or series of preferred stock of the Corporation, special meetings of stockholders of the Corporation may be called only by the Board of Directors pursuant to a resolution adopted by a majority of the total number of directors authorized. Special meetings of the stockholders may be held at such place within or without the State of Delaware as may be stated in such resolution.

*Section 3. Notice of Meetings.*

Written notice of the place, date, and time of all meetings of the stockholders shall be given, not less than ten (10) nor more than sixty (60) days before the date on which the meeting is to be held, to each stockholder entitled to vote at such meeting, except as otherwise provided herein or required by law (meaning, here and hereinafter, as required from time to time by the Delaware General Corporation Law or the Certificate of Incorporation of the Corporation).

When a meeting is adjourned to another place, date or time, written notice need not be given of the adjourned meeting if the place, date and time thereof are announced at the meeting at which the adjournment is taken; provided, however, that if the date of any adjourned meeting is more than thirty (30) days after the date for which the meeting was originally noticed, or if a new record date is fixed for the adjourned meeting, written notice of the place, date, and time of the adjourned meeting shall be given in conformity herewith. At any adjourned meeting, any business may be transacted which might have been transacted at the original meeting.

1

*Section 4. Quorum.*

At any meeting of the stockholders, the holders of a majority of all of the shares of the stock entitled to vote at the meeting, present in person or by proxy, shall constitute a quorum for all purposes, unless or except to the extent that the presence of a larger number may be required by law. Where a separate vote by a class or classes is required, a majority of the shares of such class or classes present in person or represented by proxy shall constitute a quorum entitled to take action with respect to that vote on that matter.

If a quorum shall fail to attend any meeting, the chairman of the meeting or the holders of a majority of the shares of stock entitled to vote who are present, in person or by proxy, may adjourn the meeting to another place, date, or time.

*Section 5. Organization.*

The Chairman of the Board of Directors or, in his or her absence, such person as the Board of Directors may have designated or, in his or her absence, the chief executive officer 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 the meeting. In the absence of the Secretary of the Corporation, the secretary of the meeting shall be such person as the chairman of the meeting appoints.

*Section 6. Conduct of Business.*

The Chairman of the Board of Directors or his or her designee or, if neither the Chairman of the Board nor his or her designee is present at the meeting, then a person appointed by a majority of the Board of Directors, shall preside at, and act as chairman of, any meeting of the stockholders. The chairman of any meeting of stockholders shall determine the order of business and the procedures at the meeting, including such regulation of the manner of voting and the conduct of discussion as he or she deems to be appropriate.

*Section 7. Proxies and Voting.*

At any meeting of the stockholders, every stockholder entitled to vote may vote in person or by proxy authorized by an instrument in writing filed in accordance with the procedure established for the meeting.

Each stockholder shall have one (1) vote for every share of stock entitled to vote which is registered in his or her name on the record date for the meeting, except as otherwise provided herein or required by law.

2

All voting, including on the election of directors but excepting where otherwise required by law, may be by a voice vote; provided, however, that upon demand therefor by a stockholder entitled to vote or his or her proxy, a vote by ballot shall be taken.

Except as otherwise provided in the terms of any class or series of preferred stock of the Corporation, all elections shall be determined by a plurality of the votes cast, and except as otherwise required by law, all other matters shall be determined by a majority of the votes cast.

*Section 8. Action Without Meeting.*

Any action required to be taken at any annual or special meeting of stockholders, 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 (1) signed and dated 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 and (2) delivered to the Corporation within sixty (60) days of the earliest dated consent by delivery to its registered office in the State of Delaware (in which case delivery shall be by hand or by certified or registered mail, return receipt requested), its principal place of business, or an officer or agent of the Corporation having custody of the book in which proceedings of meetings of stockholders are recorded. Prompt notice of the taking of the corporate action without a meeting by less than unanimous written consent shall be given to those stockholders who have not consented in writing.

*Section 9. Stock List.*

A complete list of stockholders entitled to vote at any meeting of stockholders, arranged in alphabetical order for each class of stock and showing the address of each such stockholder and the number of shares registered in his or her name, shall be open to the examination of any such 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 stock list shall also be kept at the place of the meeting during the whole time thereof and shall be open to the examination of any such stockholder who is present. Such list shall presumptively determine the identity of the stockholders entitled to vote at the meeting and the number of shares held by each of them.

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ARTICLE II - BOARD OF DIRECTORS

*Section 1. Number, Election, Tenure and Qualification.*

Except as otherwise specified in the Certificate of Incorporation of the Corporation, the number of directors which shall constitute the whole board shall be determined by resolution of the Board of Directors or by the stockholders at the annual meeting or at any special meeting of stockholders. The directors shall be elected at the annual meeting or at any special meeting of the stockholders, except as provided in Section 2 of this Article, and each director elected shall hold office until his or her successor is elected and qualified, unless sooner displaced. Directors need not be stockholders.

*Section 2. Vacancies and Newly Created Directorships.*

Subject to the rights of the holders of any class or series of preferred stock of the Corporation to elect directors, newly created directorships resulting from any increase in the authorized number of directors or any vacancies in the Board of Directors resulting from death, resignation, retirement, disqualification, removal from office or other cause may be filled only by a majority vote of the directors then in office, though less than a quorum, or the sole remaining director. No decrease in the number of authorized directors constituting the Board of Directors shall shorten the term of any incumbent director.

*Section 3. Resignation and Removal.*

Any director may resign at any time upon written notice to the Corporation at its principal place of business or to the chief executive officer or secretary. Such resignation shall be effective upon receipt unless it is specified to be effective at some other time or upon the happening of some other event. Any 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, unless otherwise specified by law or the Certificate of Incorporation.

*Section 4. Regular Meetings.*

Regular meetings of the Board of Directors shall be held at such place or places, on such date or dates, and at such time or times as shall have been established by the Board of Directors and publicized among all directors. A written notice of each regular meeting shall not be required.

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*Section 5. Special Meetings.*

Special meetings of the Board of Directors may be called by the Chairman of the Board of Directors, if any, the President, the Treasurer, the Secretary or one or more of the directors then in office and shall be held at such place, on such date, and at such time as they or he or she shall fix. Notice of the place, date, and time of each such special meeting shall be given each director by whom it is not waived by mailing written notice not less than three (3) days before the meeting or orally, by telegraph, telex, cable or telecopy given not less than twenty-four (24) hours before the meeting. Unless otherwise indicated in the notice thereof, any and all business may be transacted at a special meeting.

*Section 6. Quorum.*

At any meeting of the Board of Directors, a majority of the total number of members of the Board of Directors shall constitute a quorum for all purposes. If a quorum shall fail to attend any meeting, a majority of those present may adjourn the meeting to another place, date, or time, without further notice or waiver thereof.

*Section 7. Action by Consent.*

Unless otherwise restricted by the Certificate of Incorporation or these By-Laws, 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 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 or committee.

*Section 8. Participation in Meetings By Conference Telephone.*

Members of the Board of Directors, or of any committee thereof, may participate in a meeting of such Board or committee by means of conference telephone or similar communications equipment by means of which all persons participating in the meeting can hear each other and such participation shall constitute presence in person at such meeting.

*Section 9. Conduct of Business.*

At any meeting of the Board of Directors, business shall be transacted in such order and manner as the Board may from time to time determine, and all matters shall be determined by the vote of a majority of the directors present, except as otherwise provided herein or required by law.

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*Section 10. Powers.*

The Board of Directors may, except as otherwise required by law, exercise all such powers and do all such acts and things as may be exercised or done by the Corporation, including, without limiting the generality of the foregoing, the unqualified power:

- (1) To declare dividends from time to time in accordance with law;
- (2) To purchase or otherwise acquire any property, rights or privileges on such terms as it shall determine;
- (3) To authorize the creation, making and issuance, in such form as it may determine, of written obligations of every kind, negotiable or non-negotiable, secured or unsecured, to borrow funds and guarantee obligations, and to do all things necessary in connection therewith;
- (4) To remove any officer of the Corporation with or without cause, and from time to time to devolve the powers and duties of any officer upon any other person for the time being;
- (5) To confer upon any officer of the Corporation the power to appoint, remove and suspend subordinate officers, employees and agents;
- (6) To adopt from time to time such stock, option, stock purchase, bonus or other compensation plans for directors, officers, employees and agents of the Corporation and its subsidiaries as it may determine;
- (7) To adopt from time to time such insurance, retirement, and other benefit plans for directors, officers, employees and agents of the Corporation and its subsidiaries as it may determine; and,

(8) To adopt from time to time regulations, not inconsistent with these By-Laws, for the management of the Corporation's business and affairs.

*Section 11. Compensation of Directors.*

Directors, as such, may receive, pursuant to a resolution of the Board of Directors, fixed fees and other compensation for their services as directors, including, without limitation, their services as members of committees of the Board of Directors.

6

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*ARTICLE III - COMMITTEES*

*Section 1. Committees of the Board of Directors.*

The Board of Directors, by a vote of a majority of the Board of Directors, may from time to time designate committees of the Board, with such lawfully delegable powers and duties as it thereby confers, to serve at the pleasure of the Board and shall, for those committees and any others provided for herein, elect a director or directors to serve as the member or members, designating, if it desires, other directors as alternate members who may replace any absent or disqualified member at any meeting of the committee. 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 By-Laws of the Corporation. Any committee so designated may exercise the power and authority of the Board of Directors 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 if the resolution which designates the committee or a supplemental resolution of the Board of Directors shall so provide. In the absence or disqualification of any member of any committee and any alternate member in his or her place, the member or members of the committee present at the meeting and not disqualified from voting, whether or not he or she or they constitute a quorum, may by unanimous vote appoint another member of the Board of Directors to act at the meeting in the place of the absent or disqualified member.

*Section 2. Conduct of Business.*

Each committee may determine the procedural rules for meeting and conducting its business and shall act in accordance therewith, except as otherwise provided herein or required by law. Adequate provision shall be made for notice to members of all meetings; one-third (1/3) of the members shall constitute a quorum; and all matters shall be determined by a majority vote of the members present. Action may be taken by any committee without a meeting if all members thereof consent thereto in writing, and the writing or writings are filed with the minutes of the proceedings of such committee.

7

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*ARTICLE IV - OFFICERS*

*Section 1. Enumeration.*

The officers of the Corporation shall be the President, the Treasurer, the Secretary and such other officers as the Board of Directors or the Chairman of the Board may determine, including, but not limited to, the Chairman of the Board of Directors, one or more Vice Presidents, Assistant Treasurers and Assistant Secretaries.

*Section 2. Election.*

The Chairman of the Board, if any, the President, the Treasurer and the Secretary shall be elected annually by the Board of Directors at their first meeting following the annual meeting of the stockholders. The Board of Directors or such officer of the Corporation as it may designate, if any, may, from time to time, elect or appoint such other officers as it or he or she may determine, including, but not limited to, one or more Vice Presidents, Assistant Treasurers and Assistant Secretaries.

*Section 3. Qualification.*

No officer need be a stockholder. The Chairman of the Board, if any, and any Vice Chairman appointed to act in the absence of the Chairman, if any, shall be elected by and from the Board of Directors, but no other officer need be a director. Two or more offices may be held by any one person. If required by vote of the Board of Directors, an officer shall give bond to the Corporation for the faithful performance of his or her duties, in such form and amount and with such sureties as the Board of Directors may determine. The premiums for such bonds shall be paid by the Corporation.

*Section 4. Tenure and Removal.*

Each officer elected or appointed by the Board of Directors shall hold office until the first meeting of the Board of Directors following the next annual meeting of the stockholders and until his or her successor is elected or appointed and qualified, or until he or she dies, resigns, is removed or becomes disqualified, unless a shorter term is specified in the vote electing or appointing said officer. Each officer appointed by an officer designated by the Board of Directors to elect or appoint such officer, if any, shall hold office until his or her successor is elected or appointed and qualified, or until he or she dies, resigns, is removed or becomes disqualified, unless a shorter term is specified by any agreement or other instrument appointing such officer. Any officer may resign by giving written notice of his or her resignation to the Chairman of the Board, if any, the President, or the Secretary, or to the Board of Directors at a meeting of the Board, and such resignation shall become effective at the time specified therein. Any officer may be removed from office with or without cause by vote of a majority of the directors. Any officer appointed by an officer designated by the Board of Directors to elect or appoint such officer, if any, may be removed with or without cause by such officer.

8

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*Section 5. Chairman of the Board.*

The Chairman of the Board, if any, shall preside at all meetings of the Board of Directors and stockholders at which he or she is present and shall have such authority and perform such duties as may be prescribed by these By-Laws or from time to time be determined by the Board of Directors.

*Section 6. President.*

The President shall, subject to the control and direction of the Board of Directors, have and perform such powers and duties as may be prescribed by these By-Laws or from time to time be determined by the Board of Directors.

*Section 7. Vice Presidents.*

The Vice Presidents, if any, in the order of their election, or in such other order as the Board of Directors may determine, shall have and perform the powers and duties of the President (or such of the powers and duties as the Board of Directors may determine) whenever the President is absent or unable to act. The Vice Presidents, if any, shall also have such other powers and duties as may from time to time be determined by the Board of Directors.

*Section 8. Treasurer and Assistant Treasurers.*

The Treasurer shall, subject to the control and direction of the Board of Directors, have and perform such powers and duties as may be prescribed in these By-Laws or be determined from time to time by the Board of Directors. All property of the Corporation in the custody of the Treasurer shall be subject at all times to the inspection and control of the Board of Directors. Unless

otherwise voted by the Board of Directors, each Assistant Treasurer, if any, shall have and perform the powers and duties of the Treasurer whenever the Treasurer is absent or unable to act, and may at any time exercise such of the powers of the Treasurer, and such other powers and duties, as may from time to time be determined by the Board of Directors.

*Section 9. Secretary and Assistant Secretaries.*

The Board of Directors shall appoint a Secretary and, in his or her absence, an Assistant Secretary. The Secretary or, in his or her absence, any Assistant Secretary, shall attend all meetings of the directors and shall record all votes of the Board of Directors and minutes of the proceedings at such meetings. The Secretary or, in his or her absence, any Assistant Secretary, shall notify the directors of their meetings, and shall have and perform such other powers and duties as may from time to time be determined by the Board of Directors. If the Secretary or an Assistant Secretary is elected but is absent from any meeting of directors, a temporary secretary may be appointed by the directors at the meeting.

9

*Section 10. Bond.*

If required by the Board of Directors, any officer shall give the Corporation a bond in such sum and with such surety or sureties and upon such terms and conditions as shall be satisfactory to the Board of Directors, including without limitation a bond for the faithful performance of the duties of his office and for the restoration to the Corporation of all books, papers, vouchers, money and other property of whatever kind in his or her possession or under his control and belonging to the Corporation.

*Section 11. Action with Respect to Securities of Other Corporations.*

Unless otherwise directed by the Board of Directors, the President, the Treasurer or any officer of the Corporation authorized by the President shall have power to vote and otherwise act on behalf of the Corporation, in person or by proxy, at any meeting of stockholders of or with respect to any action of stockholders of any other corporation in which this Corporation may hold securities and otherwise to exercise any and all rights and powers which this Corporation may possess by reason of its ownership of securities in such other corporation.

*ARTICLE V - STOCK*

*Section 1. Certificates of Stock.*

Each stockholder shall be entitled to a certificate signed by, or in the name of the Corporation by the Chairman of the Board of Directors, or the President or a Vice President, and by the Treasurer or an Assistant Treasurer, or the Secretary or an Assistant Secretary, certifying the number of shares owned by him or her. Any or all of the signatures on the certificate may be by facsimile.

*Section 2. Transfers of Stock.*

Transfers of stock shall be made only upon the transfer books of the Corporation kept at an office of the Corporation or by transfer agents designated to transfer shares of the stock of the Corporation. Except where a certificate is issued in accordance with Section 4 of this Article of these By-Laws, an outstanding certificate for the number of shares involved shall be surrendered for cancellation before a new certificate is issued therefor.

10

*Section 3. Record Date.*

In order that the Corporation may determine the stockholders entitled to notice of or to vote at any meeting of stockholders, or to receive payment of any dividend or other distribution or allotment of any rights or to exercise any rights in respect of any change, conversion or exchange of stock or for the purpose of any other lawful action, the Board of Directors may fix a record date, which record date shall not precede the date on which the resolution fixing the record date is adopted and which record date shall not be more than sixty (60) nor less than ten (10) days before the date of any meeting of stockholders, nor more than sixty (60) days prior to the time for such other action as hereinbefore described; provided, however, that 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, and, for determining stockholders entitled to receive payment of any dividend or other distribution or allotment of rights or to exercise any rights of change, conversion or exchange of stock or for any other purpose, the record date shall be at the close of business on the day on which the Board of Directors adopts a resolution relating thereto.

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.

*Section 4. Lost, Stolen or Destroyed Certificates.*

In the event of the loss, theft or destruction of any certificate of stock, another may be issued in its place pursuant to such regulations as the Board of Directors may establish concerning proof of such loss, theft or destruction and concerning the giving of a satisfactory bond or bonds of indemnity.

*Section 5. Regulations.*

The issue, transfer, conversion and registration of certificates of stock shall be governed by such other regulations as the Board of Directors may establish.

*Section 6. Interpretation.*

The Board of Directors shall have the power to interpret all of the terms and provisions of these By-Laws, which interpretation shall be conclusive.

11

*ARTICLE VI - NOTICES*

*Section 1. Notices.*

Except as otherwise specifically provided herein or required by law, all notices required to be given to any stockholder, director, officer, employee or agent shall be in writing and may in every instance be effectively given by hand delivery to the recipient thereof, by depositing such notice in the mail, postage paid, or by sending such notice by courier service, prepaid telegram or mailgram, or telecopy, cable, or telex. Any such notice shall be addressed to such stockholder, director, officer, employee or agent at his or her last known address as the same appears on the books of the Corporation. The time when such notice is received, if hand delivered, or dispatched, if delivered through the mail or by courier, telegram, mailgram, telecopy, cable, or telex shall be the time of the giving of the notice.

*Section 2. Waiver of Notice.*

A written waiver of any notice, signed by a stockholder, director, officer, employee or agent, whether before or after the time of the event for which notice is to be given, shall be deemed equivalent to the notice required to be given to such stockholder, director, officer, employee or agent. Neither the business nor the purpose of any meeting need be specified in such a waiver. Attendance of a director or stockholder at a meeting without protesting prior thereto or at its commencement the lack of notice shall also constitute a waiver of notice by such director or stockholder.

*ARTICLE VII - INDEMNIFICATION*

*Section 1. Actions other than by or in the Right of the Corporation.*

The Corporation shall indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the Corporation) by reason of the fact that he or she is or was a director, officer, employee or agent of the Corporation, or is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by him or her in connection with such action, suit or proceeding if he or she acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the Corporation, and, with respect to any criminal action or proceedings, had no reasonable cause to believe his or her conduct was unlawful. The termination of any action, suit or proceeding by judgment, order, settlement, conviction, or upon a plea of *nolo contendere* or its equivalent, shall not, of itself, create a presumption that the person did not act in good faith and in a manner which he or she reasonably believed to be in or not opposed to the best interests of the Corporation, and,

12

with respect to any criminal action or proceeding, had reasonable cause to believe that his or her conduct was unlawful.

*Section 2. Actions by or in the Right of the Corporation.*

The Corporation shall indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the Corporation to procure a judgment in its favor by reason of the fact that he or she is or was a director, officer, employee or agent of the Corporation, or is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust, or other enterprise against expenses (including attorneys' fees) actually and reasonably incurred by him or her in connection with the defense or settlement of such action or suit if he acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the Corporation and except that no indemnification shall be made in respect of any claim, issue or matter as to which such person shall have been adjudged to be liable to the Corporation unless and only to the extent that the Court of Chancery of the State of Delaware or the court in which such action or suit was brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery of the State of Delaware or such other court shall deem proper.

*Section 3. Success on the Merits.*

To the extent that any person described in Section 1 or Section 2 of this Article has been successful on the merits or otherwise in defense of any action, suit or proceeding referred to in said Sections, or in defense of any claim, issue or matter therein, he or she shall be indemnified against expenses (including attorneys' fees) actually and reasonably incurred by him or her in connection therewith.

*Section 4. Specific Authorization.*

Any indemnification under Section 1 or Section 2 of this Article (unless ordered by a court) shall be made by the Corporation only as authorized in the specific case upon a determination that indemnification of any person described in said Sections is proper in the circumstances because he or she has met the applicable standard of conduct set forth in said Sections. Such determination shall be made (1) by the Board of Directors by a majority vote of a quorum consisting of directors who were not parties to such action, suit or proceeding, or (2) if such a quorum is not obtainable, or, even if obtainable, a quorum of disinterested directors so directs, by independent legal counsel in a written opinion, or (3) by the stockholders of the Corporation.

13

*Section 5. Advance Payment.*

Expenses incurred in defending any civil, criminal, administrative, or investigative action, suit or proceeding may be paid by the Corporation in advance of the final disposition of such action, suit or proceeding upon receipt of an undertaking by or on behalf of any person described in said Section to repay such amount if it shall ultimately be determined that he or she is not entitled to indemnification by the Corporation as authorized in this Article.

*Section 6. Non-Exclusivity.*

The indemnification and advancement of expenses provided by, or granted pursuant to, the other Sections of this Article shall not be deemed exclusive of any other rights to which those provided indemnification or advancement of expenses may be entitled under any bylaw, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in such person's official capacity and as to action in another capacity while holding such office.

*Section 7. Insurance.*

The Board of Directors may authorize, by a vote of the majority of the full board, the Corporation to purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the Corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against any liability asserted against him or her and incurred by him or her in any such capacity, or arising out of his or her status as such, whether or not the corporation would have the power to indemnify him or her against such liability under the provisions of this Article.

*Section 8. Continuation of Indemnification and Advancement of Expenses.*

The indemnification and advancement of expenses provided by, or granted pursuant to, this Article shall continue as to a person who has ceased to be a director, officer, employee or agent and shall inure to the benefit of the heirs, executors and administrators of such a person.

*Section 9. Severability.*

If any word, clause or provision of this Article or any award made hereunder shall for any reason be determined to be invalid, the provisions hereof shall not otherwise be affected thereby but shall remain in full force and effect.

14

*Section 10. Intent of Article.*

The intent of this Article is to provide for indemnification and advancement of expenses to the fullest extent permitted by Section 145 of the General Corporation Law of Delaware. To the extent that such Section or any successor section may be amended or supplemented from time to time, this Article shall be amended automatically and construed so as to permit indemnification and advancement of expenses to the fullest extent from time to time permitted by law.

*ARTICLE VIII - CERTAIN TRANSACTIONS*

*Section 1. Transactions with Interested Parties.*

No contract or transaction between the Corporation and one or more of its directors or officers, or between the Corporation and any other corporation, partnership, association, or other organization in which one or more of its directors or officers are directors or officers, or have a financial interest, shall be void or voidable solely for this reason, or solely because the director or officer is present at or participates in the meeting of the Board or committee thereof which authorizes the contract or transaction or solely because the votes of such director or officer are counted for such purpose, if:



(a) The material facts as to his or her relationship or interest and as to the contract or transaction are disclosed or are known to the Board of Directors or the committee, and the Board or committee in good faith authorizes the contract or transaction by the affirmative votes of a majority of the disinterested directors, even though the disinterested directors be less than a quorum; or

(b) The material facts as to his or her relationship or interest and as to the contract or transaction are disclosed or are known to the stockholders entitled to vote thereon, and the contract or transaction is specifically approved in good faith by vote of the stockholders; or

(c) The contract or transaction is fair as to the Corporation as of the time it is authorized, approved or ratified, by the Board of Directors, a committee thereof, or the stockholders.

*Section 2. Quorum.*

Common or interested directors may be counted in determining the presence of a quorum at a meeting of the Board of Directors or of a committee which authorizes the contract or transaction.

15

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*ARTICLE IX - MISCELLANEOUS*

*Section 1. Facsimile Signatures.*

In addition to the provisions for use of facsimile signatures elsewhere specifically authorized in these By-Laws, facsimile signatures of any officer or officers of the Corporation may be used whenever and as authorized by the Board of Directors or a committee thereof.

*Section 2. Corporate Seal.*

The Board of Directors may provide a suitable seal, containing the name of the Corporation, which seal shall be in the charge of the Secretary. If and when so directed by the Board of Directors or a committee thereof, duplicates of the seal may be kept and used by the Treasurer or by an Assistant Secretary or Assistant Treasurer.

*Section 3. Reliance upon Books, Reports and Records.*

Each director, each member of any committee designated by the Board of Directors, and each officer of the Corporation shall, in the performance of his or her duties, be fully protected in relying in good faith upon the books of account or other records of the Corporation and upon such information, opinions, reports or statements presented to the Corporation by any of its officers or employees, or committees of the Board of Directors so designated, or by any other person as to matters which such director or committee member reasonably believes are within such other person's professional or expert competence and who has been selected with reasonable care by or on behalf of the Corporation.

*Section 4. Fiscal Year.*

Except as otherwise determined by the Board of Directors from time to time, the fiscal year of the Corporation shall end on the last day of December of each year.

*Section 5. Time Periods.*

In applying any provision of these By-Laws which requires that an act be done or not be done a specified number of days prior to an event or that an act be done during a period of a specified number of days prior to an event, calendar days shall be used, the day of the doing of the act shall be excluded, and the day of the event shall be included.

16

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*ARTICLE X - AMENDMENTS*

These By-Laws may be amended, added to, rescinded or repealed 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 meeting of the stockholders or of the Board of Directors, provided notice of the proposed change was given in the notice of the meeting or, in the case of a meeting of the Board of Directors, in a notice given not less than two (2) days prior to the meeting.

17

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## T2 BIOSYSTEMS, INC.

## FOURTH AMENDED AND RESTATED INVESTORS' RIGHTS AGREEMENT

March 22, 2013

## TABLE OF CONTENTS

	Page
<b>Section 1.</b>	<b>1</b>
<b>Definitions</b>	
1.1	1
<b>Section 2</b>	<b>4</b>
<b>Registration Rights</b>	
2.1	4
2.2	6
2.3	8
2.4	8
2.5	9
2.6	11
2.7	13
2.8	13
2.9	15
2.10	16
2.11	16
2.12	16
2.13	17
2.14	17
<b>Section 3</b>	<b>17</b>
<b>Covenants of the Company</b>	
3.1	17
3.2	18
3.3	18
3.4	19
3.5	19
3.6	19
3.7	20
3.8	20
3.9	20
3.10	20
3.11	20
3.12	21
3.13	21
<b>Section 4</b>	<b>21</b>
<b>Right of First Refusal</b>	
4.1	21
<b>Section 5</b>	<b>22</b>
<b>Miscellaneous</b>	
5.1	22
5.2	23
5.3	23
5.4	23
5.5	23
5.6	24
5.7	24
5.8	24
5.9	24
5.10	24
5.11	24
5.12	25
5.12	25

i

## T2 BIOSYSTEMS, INC.

## FOURTH AMENDED AND RESTATED INVESTORS' RIGHTS AGREEMENT

This Fourth Amended and Restated Investors' Rights Agreement (this "**Agreement**") is made as of March 22, 2013, by and among T2 Biosystems, Inc., a Delaware corporation (the "**Company**"), and the persons and entities listed on Exhibit A hereto (each, an "**Investor**" or a "**Preferred Holder**" and collectively, the "**Investors**" or the "**Preferred Holders**"). Unless otherwise defined herein, capitalized terms used in this Agreement have the meanings ascribed to them in Section 1.

## RECITALS

**WHEREAS**, certain of the Investors are parties to the Series E Convertible Preferred Stock Purchase Agreement of even date herewith, among the Company and the Investors listed on the Schedule of Investors thereto (the "**Purchase Agreement**"), and it is a condition to the closing of the sale of the Series E Preferred Stock to such Investors (the "**Series E Investors**") that the parties to the Purchase Agreement execute and deliver this Agreement;

**WHEREAS**, the Company and certain of the Investors are parties to the Third Amended and Restated Investors' Rights Agreement dated as of August 3, 2011 (the "**Investors' Rights Agreement**"), which can be amended with the written consent of the Company and Holders (as defined therein) of at least a majority of the Registrable Securities (as defined therein); and

**WHEREAS**, the Company and the undersigned Investors comprising of Holders of at least a majority of the Registrable Securities now desire to amend and restate the Investors' Rights Agreement to facilitate the sale of shares of Series E Preferred Stock to the Series E Investors.

**NOW, THEREFORE:** In consideration of the mutual promises and covenants set forth herein, and other consideration, the receipt of and adequacy of which is hereby acknowledged, the parties hereto further agree as follows:

**Section 1**  
**Definitions.**

1.1 *Certain Definitions.* As used in this Agreement, the following terms shall have the meanings set forth below:

- (a) **"Closing"** shall mean the date of the sale of shares of the Company's Series E Preferred Stock pursuant to the Purchase Agreement.
- (b) **"Commission"** shall mean the Securities and Exchange Commission or any other federal agency at the time administering the Securities Act.
- (c) **"Common Stock"** shall mean the Common Stock, par value \$0.001 per share of the Company.

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(d) **"Exchange Act"** shall mean 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.

(e) **"Founder"** shall mean any of Michael Cima, Tyler Jacks, Lee Josephson, Robert Langer, W. David Lee or Ralph Weissleder.

(f) **"Holder"** shall mean (i) any Investor that holds Registrable Securities and (ii) any holder of Registrable Securities to whom the registration rights conferred by this Agreement have been duly and validly transferred in accordance with Section 2.12 of this Agreement; provided, however, that for purposes of this Agreement, a record holder of shares of Preferred Stock convertible into such Registrable Securities shall be deemed to be the Holder of such Registrable Securities; provided, further, that the Company shall in no event be obligated to register shares of Preferred Stock, and that Holders of Registrable Securities will not be required to convert their shares of Preferred Stock into Common Stock in order to exercise the registration rights granted hereunder, until immediately before the closing of the offering to which the registration relates.

(g) **"Indemnified Party"** shall have the meaning set forth in Section 2.6(c) hereof.

(h) **"Indemnifying Party"** shall have the meaning set forth in Section 2.6(c) hereof.

(i) **"Initial Public Offering"** shall mean the closing of the Company's first firm commitment underwritten public offering of the Company's Common Stock registered under the Securities Act.

(j) **"Initiating Holders"** shall mean, collectively, Holders who properly initiate a registration request under this Agreement.

(k) **"Investors"** shall mean the persons and entities listed on Exhibit A hereto.

(l) **"Management Rights Letter"** shall mean that certain Management Rights Letter by and among the Company and Broad Street Principal Investments, L.L.C., Bridge Street 2013 Holdings, L.P. and MBD 2013 Holdings, L.P. of even date herewith and the Management Rights Letters between the Company and each of (i) Aisling Capital III, LP, (ii) Flagship Ventures Fund 2004, L.P. and Flagship Ventures Fund IV, L.P., (iii) Flybridge Capital Partners I, L.P. and Flybridge Capital Partners II, L.P., (iv) Physic Ventures, L.P. and (v) Polaris Venture Partners V, L.P., Polaris Venture Partners Entrepreneurs' Fund V, L.P., Polaris Venture Partners Founders' Fund V, L.P. and Polaris Venture Partners Special Founders' Fund V, L.P., dated August 3, 2011.

(m) **"New Securities"** shall have the meaning set forth in Section 4.1(a) hereof.

(n) **"Preferred Conversion Stock"** shall mean the shares of Common Stock issued upon conversion of the Preferred Stock.

(o) **"Preferred Holders"** shall have the meaning set forth in the Preamble hereto.

2

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(p) **"Preferred Stock"** shall mean the Company's Series A-1 Convertible Preferred Stock, par value \$0.001 per share, the Company's Series A-2 Convertible Preferred Stock, \$0.001 par value per share, the Company's Series B Convertible Preferred Stock, par value \$0.001 per share, the Company's Series C Convertible Preferred Stock, par value \$0.001 per share, the Company's Series D Convertible Preferred Stock, par value \$0.001 per share and the Series E Preferred Stock, par value \$0.001 per share.

(q) **"Purchase Agreement"** shall have the meaning set forth in the Recitals hereto.

(r) **"Registrable Securities"** shall mean (i) shares of Common Stock issuable or issued pursuant to the conversion of the Shares, (ii) shares of Common Stock issued or issuable upon conversion of any capital stock of the Company acquired by the Investors after the date hereof and (iii) any Common Stock issued as a dividend or other distribution with respect to or in exchange for or in replacement of the shares referenced in (i) or (ii) above; provided, however, that Registrable Securities shall not include any shares of Common Stock described in clause (i) or (ii) above which have previously been registered or which have been sold to the public through a registration statement or could be sold pursuant to Rule 144, or which have been sold in a private transaction in which the transferor's rights under this Agreement are not validly assigned in accordance with this Agreement.

(s) The terms **"register," "registered"** and **"registration"** shall refer to a registration effected by preparing and filing a registration statement in compliance with the Securities Act and applicable rules and regulations thereunder, and the declaration or ordering of the effectiveness of such registration statement.

(t) **"Registration Expenses"** shall mean all expenses incurred by the Company in effecting any registration pursuant to this Agreement, including, without limitation, all registration, qualification, and filing fees, printing expenses, accounting fees, escrow fees, fees and disbursements of counsel for the Company, fees and disbursements of one special counsel for the Holders (selected by a majority-in-interest of the Holders) not to exceed \$50,000, blue sky fees and expenses, and expenses of any regular or special audits incident to or required by any such registration, but shall not include Selling Expenses, fees and disbursements of other counsel for the Holders and the compensation of regular employees of the Company, which shall be paid in any event by the Company.

(u) **"Requisite Share Amount"** shall have the meaning set forth in Section 3.1 hereof.

(v) **"Restated Certificate of Incorporation"** shall mean the Company's Restated Certificate of Incorporation, as may be amended and/or restated from time to time.

(w) **"Restricted Securities"** shall mean any Registrable Securities required to bear the first legend set forth in Section 2.8(b) hereof.

3

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(x) **"Rule 144"** shall mean 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.

(y) “**Rule 145**” shall mean 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.

(z) “**Securities Act**” shall mean the Securities Act of 1933, 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.

(aa) “**Selling Expenses**” shall mean all underwriting discounts, selling commissions and stock transfer taxes applicable to the sale of Registrable Securities and fees and disbursements of counsel for any Holder (other than the fees and disbursements of one special counsel to the Holders not to exceed \$50,000 included in Registration Expenses).

(bb) “**Series E Preferred Stock**” shall mean shares of the Company’s Series E Convertible Preferred Stock, par value \$0.001 per share.

(cc) “**Shares**” shall mean (i) Preferred Stock issued to the Investors by the Company, and (ii) any securities issued with respect to the foregoing upon any stock split, stock dividend, recapitalization, or similar event or upon any conversion.

(dd) “**Transaction Documents**” shall mean (i) the Purchase Agreement, (ii) that certain Fourth Amended and Restated Stockholders’ Voting Agreement by and among the Company, the Investors and certain other stockholders named therein of even date herewith and (iii) that certain Fourth Amended and Restated Right of First Refusal and Co-Sale Agreement by and among the Company, the Investors and certain other stockholders named therein of even date herewith.

## **Section 2** **Registration Rights**

### **2.1 Requested Registration.**

(a) Request for Registration. Subject to the conditions set forth in this Section 2.1, if the Company shall receive from Initiating Holders a written request signed by such Initiating Holders that the Company effect any registration with respect to at least thirty percent (30%) of the Registrable Securities (or a lesser amount if such offering shall have an aggregate offering price to the public of not less than Ten Million Dollars (\$10,000,000) net of underwriting discounts and commissions) (such request shall state the number of shares of Registrable Securities to be disposed of by such Initiating Holders), the Company will:

(i) promptly give written notice of the proposed registration to all other Holders; and

4

(ii) as soon as practicable, file and use its commercially reasonable efforts to effect such registration (including, without limitation, filing post-effective amendments, appropriate qualifications under applicable blue sky or other state securities laws, and appropriate compliance with the Securities Act) and to 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 received by the Company within ten (10) days after such written notice from the Company is mailed or delivered; provided that, unless a registration pursuant to this Section 2.1 is the Initial Public Offering, the Company also shall use its reasonable best efforts to file the registration statement within sixty (60) days of the receipt of the request from the Initiating Holders.

(b) Limitations on Requested Registration. The Company shall not be obligated to effect, or to take any action to effect, any such registration pursuant to this Section 2.1:

(i) Prior to the earlier of (A) March 22, 2015 or (B) six (6) months following the effective date of the Initial Public Offering;

(ii) 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;

(iii) After the Company has initiated two (2) such registrations pursuant to this Section 2.1 (counting for these purposes only registrations which have been declared or ordered effective and pursuant to which securities have been sold); or

(iv) During the period starting with the date sixty (60) days prior to the Company’s good faith estimate of the date of filing of, and ending on a date one hundred eighty (180) days after the effective date of, a Company-initiated registration; provided that the Company is actively employing, in good faith, commercially reasonable efforts to cause such registration statement to become effective.

(c) Deferral. If (i) in the good faith judgment of the Board of Directors of the Company (the “**Board**”), the filing of a registration statement covering the Registrable Securities would be materially detrimental to the Company and the Board concludes, as a result, that it is in the best interests of the Company to defer the filing of such registration statement at such time, and (ii) the Company shall furnish to such Holders a certificate signed by the President of the Company stating that in the good faith judgment of the Board, it would be materially detrimental to the Company for such registration statement to be filed in the near future and that it is, therefore, in the best interests of the Company to defer the filing of such registration statement, then (in addition to the limitations set forth in Section 2.1(b)(iv) above) the Company shall have the right to defer such filing for a period of not more than sixty (60) days after receipt of the request of the Initiating Holders, and, provided further, that the Company shall not defer its obligation in this manner more than once in any twelve-month period.

5

(d) Underwriting. If the Initiating Holders intend to distribute the Registrable Securities covered by their request by means of an underwriting, they shall so advise the Company as a part of their request made pursuant to this Section 2.1 and the Company shall include such information in the written notice referred to in Section 2.1(a)(i). In such event, the right of any Holder to include all or any portion of its Registrable Securities in a registration pursuant to this Section 2.1 shall be conditioned upon such Holder’s participation in such underwriting and the inclusion of such Holder’s Registrable Securities to the extent provided herein. If the Company shall request inclusion in any registration pursuant to Section 2.1 of securities being sold for its own account, or if other persons shall request inclusion in any registration pursuant to Section 2.1, the Initiating Holders shall, on behalf of all Holders, offer to include such securities in the underwriting and such offer shall be conditioned upon the participation of the Company or such other persons in such underwriting and the inclusion of the Company’s and such person’s other securities of the Company and their acceptance of the further applicable provisions of this Section 2 (including Section 2.10). The Company shall (together with all Holders proposing to distribute their securities through such underwriting) enter into an underwriting agreement in customary form with the representative of the underwriter or underwriters selected for such underwriting by the Company and approved by Holders of at least a majority of the Registrable Securities.

Notwithstanding any other provision of this Section 2.1, if the underwriters advise the Initiating Holders in writing that marketing factors require a limitation on the number of shares to be underwritten, the number of Registrable Securities that may be so included shall be apportioned pro rata among the selling Holders based on the number of Registrable Securities held by all selling Holders or in such other proportions as shall mutually be agreed to by all such selling Holders. In no event shall Registrable Securities be excluded from such registration unless all other stockholders’ securities (including securities for the account of the Company) have been first excluded.

If a person who has requested inclusion in such registration as provided above does not agree to the terms of any such underwriting, such person shall be excluded therefrom by written notice from the Company, the underwriter or the Initiating Holders. The securities so excluded shall also be withdrawn from registration. Any Registrable Securities or other securities excluded or withdrawn from such underwriting shall also be withdrawn from such registration. If shares are so withdrawn from the registration and if the number of shares to be included in such registration was previously reduced as a result of marketing factors pursuant to this Section 2.1(d), then the Company shall then offer to all Holders who have retained rights to include securities in the registration the right to include additional Registrable Securities in the registration in an aggregate amount equal to the number of shares so withdrawn, with such shares to be allocated among such Holders requesting additional inclusion, as set forth above.

### **2.2 Company Registration.**

(a) Company 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 registration pursuant to Sections 2.1 or 2.3, a registration relating solely to employee benefit plans, a registration relating to the offer and sale of debt securities, a registration relating to a corporate reorganization or other Rule 145 transaction, or a registration on any registration form that does not permit secondary sales, the Company will:

(i) promptly give written notice of the proposed registration to all Holders; and

(ii) include in such registration (and any related qualification under blue sky laws or other compliance), except as set forth in Section 2.2(b) below, and in any underwriting involved therein, all of such Registrable Securities as are specified in a written request or requests made by any Holder or Holders received by the Company within twenty (20) days after such written notice from the Company is mailed or delivered. Such written request may specify all or a part of a Holder's Registrable Securities. If a Holder decides not to include all of its Registrable Securities in any registration statement thereafter filed by the Company, such Holder shall nevertheless continue to have the right to include any Registrable Securities in any subsequent registration statement or registration statements as may be filed by the Company with respect to offerings of its securities, all upon the terms and conditions set forth herein.

(b) Underwriting. 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 2.2(a)(i). In such event, the right of any Holder to registration pursuant to this Section 2.2 shall be conditioned upon such Holder's participation in such underwriting and the inclusion of such Holder's Registrable Securities in the underwriting to the extent provided herein. All Holders proposing to distribute their securities through such underwriting shall (together with the Company and the other holders of securities of the Company with registration rights to participate therein distributing their securities through such underwriting) enter into an underwriting agreement in customary form with the representative of the underwriter or underwriters selected by the Company.

Notwithstanding any other provision of this Section 2.2, if the underwriters advise the Company in writing that marketing factors require a limitation on the number of shares to be underwritten, the underwriters may (subject to the limitations set forth below) limit the number of Registrable Securities to be included in the registration and underwriting. In no event shall any Registrable Securities be excluded from such registration and underwriting unless all other stockholders' securities have been first excluded. In the event that the underwriters determine that less than all of the Registrable Securities requested to be registered can be included in such registration and underwriting, then the Registrable Securities that are included in such registration and underwriting shall be apportioned pro rata among the selling Holders based on the number of Registrable Securities held by all selling Holders or in such other proportions as shall mutually be agreed to by all such selling Holders. Notwithstanding the foregoing, in no event shall the amount of securities of the selling Holders included in the registration and underwriting be reduced below thirty percent (30%) of the total amount of securities included in such registration and underwriting, unless such registration is the Initial Public Offering, in which case the selling Holders may be excluded if the underwriters make the determination described above.

If a person who has requested inclusion in such registration as provided above does not agree to the terms of any such underwriting, such person shall also be excluded therefrom by written notice from the Company or the underwriter. The securities so excluded shall also be withdrawn from such registration. Any Registrable Securities or other securities excluded or withdrawn from such underwriting shall be withdrawn from such registration.

(c) Right to Terminate Registration. The Company shall have the right to terminate or withdraw any registration initiated by it under this Section 2.2 prior to the effectiveness of such registration whether or not any Holder has elected to include securities in such registration.

### 2.3 Registration on Form S-3.

(a) Request for Form S-3 Registration. If the Company is then qualified for the use of Form S-3, in addition to the rights contained in the foregoing provisions of this Section 2 and subject to the conditions set forth in this Section 2.3, if the Company shall receive from Initiating Holders a written request signed by such Initiating Holders that the Company effect any registration on Form S-3 or any similar short form registration statement with respect to all or part of the Registrable Securities (such request shall state the number of shares of Registrable Securities to be disposed of and the intended methods of disposition of such shares by such Holder or Holders), the Company will take all such action with respect to such Registrable Securities as required by Sections 2.1(a)(i) and 2.1(a)(ii); provided, that in the case of a registration pursuant to this Section 2.3, the Company also shall use its reasonable best efforts to file the registration statement within sixty (60) days of the receipt of the request from the Initiating Holders.

(b) Limitations on Form S-3 Registration. The Company shall not be obligated to effect, or take any action to effect, any such registration pursuant to this Section 2.3:

(i) In the circumstances described in either Sections 2.1(b)(ii) or 2.1(b)(iv);

(ii) If the Initiating Holders, together with the holders of any other securities of the Company entitled to inclusion in such registration, propose to sell Registrable Securities and such other securities (if any) on Form S-3 at an aggregate price to the public (net of any underwriters' discounts and commissions) of less than Three Million Dollars (\$3,000,000); or

(iii) If, in a given six-month period, the Company has effected one (1) such registration in such period.

(c) Deferral. The provisions of Section 2.1(c) shall apply to any registration pursuant to this Section 2.3.

(d) Underwriting. If the Initiating Holders requesting registration under this Section 2.3 intend to distribute the Registrable Securities covered by their request by means of an underwriting, the provisions of Section 2.1(d) shall apply to such registration. Notwithstanding anything contained herein to the contrary, registrations effected pursuant to this Section 2.3 shall not be counted as requests for registration or registrations effected pursuant to Section 2.1.

2.4 Expenses of Registration. All Registration Expenses incurred in connection with registrations pursuant to Sections 2.1, 2.2 and 2.3 hereof shall be borne by the Company; provided, however, that the Company shall not be required to pay for any expenses of any registration proceeding begun pursuant to Sections 2.1 and 2.3 if the registration request is subsequently withdrawn at the request of the Holders of a majority of the Registrable Securities to be registered or because a sufficient number of Holders shall have withdrawn so that the minimum offering

conditions set forth in Sections 2.1 and 2.3 are no longer satisfied (in which case all participating Holders shall bear such expenses pro rata among each other based on the number of Registrable Securities requested to be so registered), unless the Holders of a majority of the Registrable Securities agree to forfeit their right to one demand registration pursuant to Section 2.1(a); and provided further, however, that if at the time of such withdrawal, the Holders have learned of a material adverse change in the condition, business, or prospects of the Company from that known to the Holders at the time of their request and have withdrawn the request with reasonable promptness following disclosure by the Company of such material adverse change, then the Holders shall not be required to pay any of such expenses and shall retain their rights pursuant to Section 2.1 or 2.3. All Selling Expenses shall be borne pro rata by the selling Holders based on the number of Registrable Securities requested to be so registered.

2.5 Registration Procedures. In the case of each registration effected by the Company pursuant to Section 2, the Company will keep each Holder advised in writing as to the initiation of each registration and as to the completion thereof. At its expense, the Company will use its commercially reasonable efforts to:

(a) Keep such registration effective for a period of ending on the earlier of the date which is one hundred twenty (120) days from the effective date of the registration statement or such time as the Holder or Holders have completed the distribution described in the registration statement relating thereto; provided, however, that (i) such one hundred twenty (120) day period shall be extended for a period of time equal to the period the Holder refrains, at the request of an underwriter of Common Stock (or other securities) of the Company, from selling any securities included in such registration, and (ii) in the case of any registration of Registrable Securities on Form S-3 that are intended to be offered on a continuous or delayed basis, subject to compliance with applicable Commission rules, such one hundred twenty (120) day period shall be extended for up to 12 months, if necessary, to keep the registration statement effective until all such Registrable Securities are sold;

(b) Prepare and file with the Commission such amendments and supplements to such registration statement and the prospectus used in connection with such registration statement as may be necessary to comply with the provisions of the Securities Act with respect to the disposition of all securities covered by such registration statement for the period set forth in subsection (a) above; provided further that in connection with any registration on Form S-3 pursuant to Section 2.3 above, the Company agrees to timely file all reports required under the Exchange Act in order to maintain the right to continue to use such Form S-3 and to maintain such registration in effect;

(c) Furnish such number of prospectuses, including any preliminary prospectuses, and other documents incident thereto, including any amendment of or supplement to the prospectus, and such other documents as the Holders may reasonably request in order to facilitate their disposition of their Registrable Securities;

(d) Use its reasonable best efforts to register and qualify the securities covered by such registration statement under such other securities or Blue Sky laws of such jurisdiction 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

9

service of process in any such states or jurisdictions unless the Company is already subject to service in such jurisdiction and except as may be required by the Securities Act;

(e) 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 light of the circumstances then existing, and following such notification promptly prepare and furnish to such Holder 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 purchasers 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 light of the circumstances then existing;

(f) Provide a transfer agent and registrar for all Registrable Securities registered pursuant to such registration statement and a CUSIP number for all such Registrable Securities, in each case not later than the effective date of such registration;

(g) Cause all such Registrable Securities registered pursuant hereunder to be listed on each securities exchange on which similar securities issued by the Company are then listed;

(h) Otherwise use its commercially reasonable efforts to comply with all applicable rules and regulations of the Commission;

(i) In connection with any underwritten offering pursuant to a registration statement filed pursuant to Section 2.1 hereof, enter into an underwriting agreement in form reasonably necessary to effect the offer and sale of Common Stock, provided such underwriting agreement contains reasonable and customary provisions, and provided further, that each Holder participating in such underwriting shall also enter into and perform its obligations under such an agreement; and

(j) Use its reasonable best efforts to furnish, at the request of any Holder requesting registration of Registrable Securities pursuant to this Section 2, on the date that such Registrable Securities are delivered to the underwriters for sale in connection with a registration pursuant to this Section 2, if such securities are being sold through underwriters, (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 and reasonably satisfactory to a majority in interest of Holders requesting registration, 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 and reasonably satisfactory to a majority in interest of the Holders requesting registration, addressed to the underwriters, if any, and to the Holders requesting registration of Registrable Securities.

10

(k) Promptly make available for inspection by the selling Holders, any underwriter participating in any disposition pursuant to such registration statement, and any attorney or accountant or other agent retained by any such underwriter or selected by the selling Holders, all financial and other records, pertinent corporate documents, and properties of the Company, and cause the Company's officers, directors, employees, and independent accountants to supply all information reasonably requested by any such seller, underwriter, attorney, accountant, or agent in connection with any such registration statement.

## 2.6 Indemnification.

(a) To the extent permitted by law, the Company will indemnify and hold harmless each Holder, each of its officers, directors, stockholders, members and 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 2, and each underwriter, if any, and each person who controls within the meaning of Section 15 of the Securities Act any underwriter, against all expenses, claims, losses, damages, and liabilities (or actions, proceedings, or settlements in respect thereof) arising out of or based on: (i) any untrue statement (or alleged untrue statement) of a material fact contained or incorporated by reference in any prospectus, offering circular, or other document (including any related registration statement, notification, or the like) incident to any such registration, qualification, or compliance; (ii) 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; or (iii) any violation (or alleged violation) by the Company of the Securities Act, the Exchange Act, any state securities laws or any rule or regulation thereunder applicable to the Company and relating to action or inaction required of the Company in connection with any offering covered by such registration, qualification, or compliance, and the Company will reimburse each such Holder, each of its officers, directors, stockholders, members, 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 and defending or settling any such claim, loss, damage, liability, or action as they 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 action arises out of or is based on any untrue statement or omission based upon written information furnished to the Company and stated to be specifically for use therein by such Holder, any of such Holder's officers, directors, partners, legal counsel or accountants, any person controlling such Holder, such underwriter or any person who controls any such underwriter; and provided further that, the indemnity agreement contained in this Section 2.6(a) 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 or delayed).

(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 and hold harmless the Company, each of its directors, officers, 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, each other such Holder, and each of their officers, directors, stockholders, members and partners, and each person controlling such Holder, against all

11

claims, losses, damages and liabilities (or actions in respect thereof) arising out of or based on: (i) any untrue statement (or alleged untrue statement) of a material fact contained or incorporated by reference in any such registration statement, prospectus, offering circular, or other document, or (ii) 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, directors, officers, stockholders, members, 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 they 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 in no event shall any indemnity under this Section 2.6 exceed the net proceeds from the offering received by such Holder.

(c) Each party entitled to indemnification under this Section 2.6 (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 such claim or any litigation resulting therefrom; provided that counsel for the Indemnifying Party, who shall conduct the defense of such claim or any litigation resulting therefrom, shall be approved by the Indemnified Party (whose approval shall not be unreasonably withheld), and the Indemnified Party may participate in such defense at such party's expense; provided, further, however, that an Indemnified Party (together with all other Indemnified Parties that may be represented without conflict by one counsel) shall have the right to retain one separate counsel, with the fees and expenses to be paid by the Indemnifying Party, if representation of such Indemnified Party by the counsel retained by the Indemnifying Party would be inappropriate due to actual or potential differing interests between such Indemnified Party and any other party represented by such counsel in such proceeding; 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 2.6, to the extent such failure is not materially prejudicial to the 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 that 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 defense of such claim and litigation resulting therefrom.

(d) If the indemnification provided for in this Section 2.6 is held by a court of competent jurisdiction to be unavailable to an Indemnified Party with respect to any loss, liability, claim, damage, or expense referred to herein, then the Indemnifying Party, in lieu of indemnifying such Indemnified Party hereunder, shall contribute to the amount paid or payable by such

12

Indemnified Party as a result of such loss, liability, claim, damage, or expense in such proportion as is appropriate to reflect the relative fault of the Indemnifying Party on the one hand and of the Indemnified Party on the other in connection with the statements or omissions that resulted in such loss, liability, claim, damage, or expense as well as any other relevant equitable considerations; provided, however, that no contribution by any Holder, when combined with any amounts paid by such Holder pursuant to Section 2.6(b), shall exceed the net proceeds from the offering received by such Holder. 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 relates to information supplied by the Indemnifying Party or by the Indemnified Party and the parties' relative intent, knowledge, access to information, and opportunity to correct or prevent such statement or omission.

(e) Notwithstanding the foregoing, to the extent that the provisions on indemnification and contribution contained in the underwriting agreement entered into in connection with the underwritten public offering are in conflict with the foregoing provisions, the provisions in the underwriting agreement shall control.

(f) The obligations of the Company and Holders under this Section 2.6 shall survive the completion of any offering of Registrable Securities in a registration statement, and otherwise.

2.7 *Information by Holder*: Each Holder of Registrable Securities shall furnish to the Company such information regarding such Holder and the distribution proposed by such Holder as the Company may reasonably request in writing and as shall be reasonably required in connection with any registration, qualification, or compliance referred to in this Section 2.

2.8 *Restrictions on Transfer*: The Holder of each certificate representing Registrable Securities by acceptance thereof agrees to comply in all respects with the provisions of this Section 2.8.

(a) Subject to Section 2.10, each Holder agrees not to make any sale, assignment, transfer, pledge or other disposition of all or any portion of the Restricted Securities, or any beneficial interest therein, unless and until (x) the transferee thereof has agreed in writing for the benefit of the Company to take and hold such Restricted Securities subject to, and to be bound by, the terms and conditions set forth in this Agreement, including, without limitation, these Sections 2.8 and 2.10, and (y):

(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 given prior written notice to the Company of such Holder's intention to make such disposition and shall have furnished the Company with a detailed description of the manner and circumstances of the proposed disposition, and, if requested by the Company, such Holder shall have furnished the Company, at such Holder's expense, with (A) an opinion of counsel, reasonably satisfactory to the Company, to the effect that such disposition will not require registration of such Restricted Securities under the Securities Act or (B) a "no

13

action" letter from the Commission to the effect that the transfer of such securities without registration will not result in a recommendation by the staff of the Commission that action be taken with respect thereto, whereupon the holder of such Restricted Securities shall be entitled to transfer such Restricted Securities in accordance with the terms of the notice delivered by the Holder to the Company. It is agreed that the Company will not require opinions of counsel or "no action" letters for transactions made pursuant to Rule 144, except in unusual circumstances.

(iii) Notwithstanding the provisions of subsections (a)(y)(i) and (a)(y)(ii) above, no such registration statement or opinion of counsel or "no action" letter shall be necessary for: (A) a transfer by a Holder to any of its affiliates (including an affiliated fund now or hereafter existing that is managed by the same manager or managing member or general partner or management company or by an entity controlling, controlled by, or under common control with such manager or managing member or general partner or management company, each an "Affiliated Fund"); (B) a transfer by a Holder that is a partnership, limited liability company or corporation to a partner, limited partner, retired partner, member, retired member or stockholder of a Holder; (C) a transfer by gift, will or intestate succession of any partner to his or her spouse or to the siblings, lineal descendants or ancestors of such partner or his or her spouse; or (D) the transfer by a Holder exercising its co-sale rights under the Fourth Amended and Restated Right of First Refusal and Co-Sale Agreement by and among the Company and the Investors and certain other stockholders named therein of even date herewith, as amended, as the same may be amended and/or restated from time to time, if in each transfer under clauses (A), (B) or (C) the prospective transferee agrees in all such instances in writing to be subject to the terms hereof to the same extent as if he or she were an original Holder hereunder.

(b) Each certificate representing Registrable Securities shall (unless otherwise permitted by the provisions of this Agreement) be stamped or otherwise imprinted with a legend substantially similar to the following (in addition to any legend required under applicable state securities laws):

THE SECURITIES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "ACT"), OR UNDER THE SECURITIES LAWS OF CERTAIN STATES. THESE SECURITIES MAY NOT BE OFFERED, SOLD OR OTHERWISE TRANSFERRED, PLEDGED OR HYPOTHECATED EXCEPT AS PERMITTED UNDER THE ACT AND APPLICABLE STATE SECURITIES LAWS PURSUANT TO REGISTRATION OR AN EXEMPTION THEREFROM. THE ISSUER OF THESE SECURITIES MAY REQUIRE AN OPINION OF COUNSEL SATISFACTORY TO THE ISSUER THAT SUCH OFFER, SALE OR TRANSFER, PLEDGE OR HYPOTHECATION OTHERWISE COMPLIES WITH THE ACT AND ANY APPLICABLE STATE SECURITIES LAWS.

THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO (1) RESTRICTIONS ON TRANSFERABILITY AND RESALE, INCLUDING A LOCK-UP PERIOD OF UP TO 180 DAYS IN

14

THE EVENT OF A PUBLIC OFFERING, AS SET FORTH IN AN INVESTOR RIGHTS AGREEMENT, AND (2) VOTING RESTRICTIONS AS SET FORTH IN A VOTING AGREEMENT AMONG THE COMPANY AND THE ORIGINAL HOLDERS OF THESE SHARES, COPIES OF WHICH MAY BE OBTAINED AT THE PRINCIPAL OFFICE OF THE COMPANY.

The Holders consent 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 2.8.

(c) The first legend referring to federal and state securities laws identified in Section 2.8(b) hereof stamped on a certificate evidencing the Restricted Securities and the stock transfer instructions and record notations with respect to such Restricted Securities shall be removed and the Company shall issue a certificate without such legend to the holder of such Restricted Securities if (i) such securities are registered under the Securities Act; or (ii) such holder provides the Company with an opinion of counsel reasonably acceptable to the Company to the effect that a public sale or transfer of such securities may be made without registration under the Securities Act; or (iii) such holder provides the Company with reasonable assurances, which may, at the option of the Company, include an opinion of counsel reasonably satisfactory to the Company, that such securities can be sold without restriction pursuant to Rule 144 under the Securities Act.

2.9 *Rule 144 Reporting*: With a view to making available the benefits of certain rules and regulations of the Commission that may permit the sale of the Restricted Securities to the public without registration, the Company agrees to use its commercially reasonable efforts to:

(a) Make and keep public information regarding the Company available as those terms are understood and defined in Rule 144 under the Securities Act, at all times from and after the effective date of the first registration under the Securities Act filed by the Company for an offering of its securities to the general public;

(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; and

(c) So long as a Holder owns any Restricted Securities, furnish to the Holder forthwith upon written request a written statement by the Company as to its compliance with the reporting requirements of Rule 144 (at any time from and after ninety (90) days following the effective date of the first registration statement filed by the Company for an offering of its securities to the general public), and 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 so filed 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.

15

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**2.10 Market Stand-Off Agreement.** If requested by the Company and an underwriter of Common Stock (or other securities) of the Company, each Holder hereby agrees that such Holder shall not sell or otherwise transfer, make any short sale of, grant any option for the purchase of, or enter into any hedging or similar transaction with the same economic effect as a sale, of any Common Stock (or other securities) of the Company held by such Holder (other than those included in the registration) during one hundred and eighty (180) day period or, if required by such underwriter, such longer period of time as is necessary to enable such underwriter to issue a research report or make a public appearance that relates to an earnings release or announcement by the Company within eighteen (18) days before or after the date that is one hundred eighty (180) days after the effective date of the registration statement on Form S-1 or Form S-3 relating to such offering, but in any event not to exceed two hundred ten (210) days following the effective date of the registration statement relating to the Initial Public Offering. The foregoing provisions of this Section 2.10 shall be applicable to the Holders only if all officers, directors, and stockholders individually owning more than one percent (1%) of the Company's outstanding Common Stock are subject to the same restrictions. The obligations described in this Section 2.10 shall not apply to a registration relating solely to employee benefit plans on Form S-1 or Form S-8 or similar forms that may be promulgated in the future, or a registration relating solely to a transaction on Form S-4 or similar forms that may be promulgated in the future. The Company may impose stop-transfer instructions and may stamp each such certificate with the second legend set forth in Section 2.8(b) hereof with respect to the shares of Common Stock (or other securities) subject to the foregoing restriction until the end of such one hundred eighty (180) day period. Each Holder agrees to execute a market standoff agreement with said underwriters in customary form consistent with the provisions of this Section 2.10. Any discretionary waiver or release of such agreement by the Company or the underwriters shall apply pro rata to all Holders subject to such agreements, based on the number of shares subject to such agreements. Notwithstanding anything to the contrary in the foregoing, the restrictions contained in this Section 2.10 shall not apply to any shares of Common Stock (or any securities convertible into or exercisable or exchangeable for Common Stock) acquired by any Holder following the effective date of the Initial Public Offering.

**2.11 Delay of Registration.** No Holder shall have any right to take any action to restrain, enjoin, or otherwise delay any registration as the result of any controversy that might arise with respect to the interpretation or implementation of this Section 2.

**2.12 Transfer or Assignment of Registration Rights.** The rights to cause the Company to register securities granted to a Holder by the Company under this Section 2 may be transferred or assigned by a Holder only to: (a) a transferee or assignee who acquires at least five percent (5%) of the Investor's shares of Registrable Securities (as presently constituted and subject to subsequent adjustments for stock splits, stock dividends, reverse stock splits, and the like); (b) an affiliate of a Holder (including an Affiliated Fund) or a subsidiary, parent, partner, limited partner, retired partner, member, retired member or stockholder of a Holder; or (c) a Holder's family member or trust for the benefit of an individual Holder or Holder's family member; provided that (i) any such transfer or assignment of Registrable Securities is effected in accordance with the terms of Section 2.8 hereof, and applicable securities laws; (ii) the Company is given written notice prior to said transfer or assignment, stating the name and address of the transferee or assignee and identifying the securities with respect to which such registration rights are intended to be transferred or assigned; (iii) the transferee or assignee of such rights assumes in writing the obligations of such Holder under this

16

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Agreement, including without limitation the obligations set forth in Section 2.10; and (iv) any such transferee is not engaged in competition with the Company as reasonably determined by the Board.

**2.13 Limitations on Subsequent Registration Rights.** From and after the date of this Agreement, the Company shall not, without the prior written consent of the Holders holding at least a majority of the Registrable Securities, enter into any agreement with any holder or prospective holder of any securities of the Company giving such holder or prospective holder any registration rights the terms of which are *pari passu* with or senior to the registration rights granted to the Holders hereunder.

**2.14 Termination of Registration Rights.** The right of any Holder to request registration or inclusion in any registration pursuant to Section 2.1, 2.2 or 2.3 shall terminate on the earlier of (i) such date, on or after the closing of the Initial Public Offering, on which all shares of Registrable Securities held or entitled to be held upon conversion by such Holder may immediately be sold under Rule 144 during any ninety (90)-day period; and (ii) five (5) years after the closing of the Initial Public Offering.

### **Section 3 Covenants of the Company**

The Company hereby covenants and agrees, as follows:

**3.1 Basic Financial Information.** Provided that twenty percent (20%) of the Preferred Stock originally issued by the Company (subject to appropriate adjustment for stock splits, stock dividends, combinations, and other recapitalizations) or the equivalent in Registrable Securities remain outstanding, the Company shall deliver to each Investor who holds at least twenty percent (20%) of the Shares originally purchased by such Investor (the "**Requisite Share Amount**") the following financial information:

(a) as soon as practicable, but in any event within 150 days after the end of each fiscal year of the Company, which such time period may be waived by the Holders holding at least a majority of the Registrable Securities (excluding any of such shares that have been sold to the public or pursuant to Rule 144), an income statement for such fiscal year, a balance sheet of the Company and statement of stockholder's equity as of the end of such year, and a statement of cash flows for such year, such year-end financial reports to be in reasonable detail, prepared in accordance with generally accepted accounting principles ("**GAAP**"), and audited and certified by an independent public accounting firm of nationally recognized standing selected by the Company;

(b) as soon as practicable, but in any event within 45 days after the end of each of the first three quarters of each fiscal year of the Company, an unaudited profit or loss statement, a statement of cash flows for such fiscal quarter and an unaudited balance sheet as of the end of such fiscal quarter prepared in accordance with GAAP consistently applied with prior practice for earlier periods (with the exception of footnotes that may be required by GAAP) and fairly present the financial condition of the Company and its results of operation for the period specified, subject to year-end audit adjustment;

17

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(c) as soon as practicable, but in any event within thirty (30) days of the end of each month, an unaudited income statement and statement of cash flows for such month, and an unaudited balance sheet and statement of stockholders' equity as of the end of such month, all prepared in accordance with GAAP and fairly present the financial condition of the Company and its results of operation for the period specified, subject to year-end audit adjustment and

(d) as soon as practicable, but in any event within 30 days prior to the commencement of each new fiscal year of the Company, an annual budget and operating plan for such fiscal year.

(d) the rights granted to each Investor pursuant to this Section 3.1 shall terminate on the date of the closing of the Initial Public Offering.

**3.2 Inspection Rights.** Provided that twenty percent (20%) of the Preferred Stock originally issued by the by the Company (subject to appropriate adjustment for stock splits, stock dividends, combinations, and other recapitalizations) or the equivalent in Registrable Securities remain outstanding, the Company will afford to each Investor who continues to hold such



Investor's Requisite Share Amount reasonable access during normal business hours to all of the Company's properties, books and records. Investors may exercise their rights under this [Section 3.2](#) only for purposes reasonably related to their interests as a stockholder. The rights granted pursuant to [Section 3.1](#) and this [Section 3.2](#) may be assigned or otherwise conveyed by any Investor to any person that such Investor transfers shares of Shares representing such Investor's Requisite Share Amount or by any subsequent transferee of any such rights to any transferee, and such transferees shall be deemed to be an Investor for purposes of [Sections 3.1](#) and [3.2](#) hereof, unless such transferee is reasonably deemed by the Company to be a competitor of the Company. The rights granted to each Investor pursuant to this [Section 3.2](#) shall terminate on the date of the closing of the Initial Public Offering.

3.3 *Confidentiality.* Anything in this Agreement to the contrary notwithstanding, no Holder by reason of this Agreement shall have access to any trade secrets of the Company. The Company shall not be required to comply with any inspection rights of [Section 3](#) in respect of any Holder whom the Company reasonably determines to be a competitor or an officer, employee, director or holder of more than ten percent (10%) of a competitor, nor shall the Company be obligated to disclose any information which the Board determines in good faith is attorney-client privileged and should not, therefore, be disclosed. Each Holder agrees that it will not use any information received by it pursuant to this Agreement in violation of the Exchange Act or reproduce, disclose or disseminate such information to any other person other than its employees, agents or partners having a need to know the contents of such information, and its attorneys, consultants, and other professionals to the extent necessary to obtain their services in connection with monitoring its investment in the Company; and to any prospective purchaser of any Registrable Securities from such Holder, if such prospective purchaser agrees to be bound by the provisions of this [Section 3.3](#) or as may otherwise be required by law, provided that the Holder promptly notifies the Company of such disclosure and takes reasonable steps to minimize the extent of any such required disclosure unless such information (a) is known or becomes known to the public in general (other than as a result of a breach of this [Section 3.3](#) by such Holder), (b) is or has been independently developed or conceived by the Holder without use of the Company's confidential information, or (c) is or has

18

been made known or disclosed to the Holder by a third party without a breach of any obligation of confidentiality such third party may have to the Company. The Company acknowledges that certain of the Investors are in the business of venture capital investing and therefore review the business plans and related proprietary information of many enterprises, including enterprises that may have products or services that compete directly or indirectly with those of the Company. Nothing in this Agreement shall preclude or in any way restrict the Investors from investing or participating in any particular enterprise, regardless of whether such enterprise has products or services that compete with those of the Company.

3.4 *Stock Option Vesting.* Unless otherwise decided by the Board and each of the Preferred Stock Directors (as defined in the Fourth Amended and Restated Stockholders' Voting Agreement dated as of the date hereof, as the same may be amended and/or restated from time to time), all option grants to employees and consultants of the Company made after the date of this Agreement shall vest over a four (4) year period with twenty-five percent (25%) of the shares subject to each option vesting a year after the vesting commencement date and the remainder of the shares vesting in equal amounts on a monthly, quarterly or annual basis thereafter. Vesting shall be accelerated by one (1) year if within one (1) year after a change in control the option holder, if such option holder is an employee, is discharged without cause or is "constructively discharged" (e.g. by a reduction in compensation).

3.5 *Termination of Covenants.* The covenants set forth in this [Section 3](#) shall terminate and be of no further force and effect after the closing of the Initial Public Offering or upon the closing of a Deemed Liquidation Event (as defined in the Restated Certificate of Incorporation), provided that in the case of a sale of substantially all assets, such termination shall occur only upon completion of the distribution of all proceeds of such sale to the stockholders of the Company in accordance with the Restated Certificate of Incorporation.

3.6 *Founder Board Observer Rights.* From and after the date of this Agreement and until consummation of the Initial Public Offering, the Founders shall have the right to appoint four (4) designees ("**Founder Board Observers**"), provided that such Founder Board Observer is also a Founder. Founder Board Observers shall be permitted to attend each meeting of the Board and to participate in all discussions during each meeting. The Company shall send to each such Founder Board Observer the notice of the time and place of any such meeting in the same manner and at the same time as it shall send such notice to its directors or committee members, as the case may be. The Company shall also provide to each such Founder Board Observer copies of all notices, reports, minutes and consents at the time and in the manner as they are provided to the Board or committee, unless the information is reasonably designated as proprietary information by the Board, the Company receives advice from legal counsel that there is a substantial risk that discussing a specified matter in the presence of, or providing specific document to, a person who is not a member of the Board, would result in the Company's loss of attorney-client privilege with respect to a specified matter, or if the Company reasonably believes that such specified matter relates directly and substantially to any matter in which such Founder Board Observer has a material business or financial interest (other than by reason of its interests as a stockholder of the Company), or if the Board in good faith wishes to discuss confidential matters related to the business of the Company, the Company may exclude a Founder Board Observer from that portion of the meeting addressing such specified matter or not provide such specific document to the Founder Board Observer.

19

### 3.7 No Restrictions on Business Activities.

(a) The Company agrees not to require any Investor to (i) limit or restrict any of its business activities (including, without limitation, business activities of such Investor in the same line of business as the Company or investments by such Investor in any entity engaged in the same line of business of the Company), (ii) send any business opportunities to the Company or (iii) violate any duty or client confidence. Notwithstanding anything to the contrary in this Agreement or in any of the Transaction Documents, the Company agrees that any of the Investors may disclose any confidential information of the Company that such Investor receives if such disclosure is requested or required by law, regulation or any regulatory or governmental authority, provided that such disclosing Investor gives the Company, to the extent reasonably practicable and legally permitted, prior written notice of such requirement and an opportunity to seek a protective order with respect thereto.

(b) Notwithstanding anything to the contrary in this Agreement or in any of the Transaction Documents, none of the provisions herein or therein shall in any way limit any Investor from engaging in any brokerage, investment advisory, financial advisory, anti-raid advisory, principaling, merger advisory, financing, asset management, trading, market making, arbitrage, investment activity or other similar activities conducted in the ordinary course of its business. The Company acknowledges that the restrictions contained in Section 2.10 of this Agreement shall not apply to any shares of Common Stock (or any securities convertible into or exercisable or exchangeable for Common Stock) acquired by the Investors following the effective date of the first registration statement of the Company covering Common Stock or other securities to be sold on behalf of the Company in an underwritten public offering.

3.8 *Restrictive Covenants.* The Company agrees that it will not enter into any agreement that contains a non-competition or non-solicitation covenant that binds any of the Investors.

3.9 *No Other Arrangements.* The Company hereby agrees, represents and warrants to each of the Investors that, except for the Transaction Documents and the Management Rights Letters, the Company is not a party to any agreements, arrangements or understandings, whether written or oral, with any Series E Investors with respect to the rights, privileges or restrictions of the Series E Preferred Stock.

3.10 *General Regulatory.* The Company shall keep the Investors informed, on a current basis, of any events, discussions, notices or changes with respect to any tax (other than ordinary course communications which could not reasonably be expected to be material to the Company), criminal or regulatory investigation or action involving the Company or any of its subsidiaries, and shall reasonably cooperate with the Investors and their respective affiliates in an effort to avoid or mitigate any cost or regulatory consequences to them that might arise from such investigation or action (including by reviewing written submissions in advance, attending meetings with authorities and coordinating and providing assistance in meeting with regulators).

3.11 *Non-Promotion.* The Company agrees that it will not, without the prior written consent of each Investor or its affiliate, as applicable, in each instance, (i) use in advertising, publicity, or otherwise the name of such Investor or its affiliate, or any partner or employee of an

20

affiliate of such Investor, nor any trade name, trademark, trade device, service mark, symbol or any abbreviation, contraction or simulation thereof owned by such Investor or its affiliates, or (ii) represent, directly or indirectly, that any product or any service provided by the Company has been approved or endorsed by such Investor or its affiliate.

3.12 *Company Logos.* The Company grants each of the Investors permission to use the Company's name and logo in the marketing materials of such Investor or its affiliates. Each of the Investors or their affiliates, as applicable, shall include a trademark attribution notice giving notice of the Company's ownership of its trademarks in the marketing materials of such Investor in which the Company's name and logo appear.

3.13 *Insurance.* The Company shall maintain Director and Officer liability insurance of no less than Three Million Dollars (\$3,000,000) and product liability insurance.

**Section 4**  
**Right of First Refusal**

4.1 *Right of First Refusal to Preferred Holders.* Provided that fifteen percent (15%) or more of the Preferred Stock originally issued by the Company (subject to appropriate adjustment for stock splits, stock dividends, combinations, and other recapitalizations) remains outstanding, the Company hereby grants to each Preferred Holder the right of first refusal to purchase its pro rata share (based on ownership of Preferred Stock) of New Securities (as defined in Section 4.1(a)), which the Company may, from time to time, propose to sell and issue after the date of this Agreement. A Preferred Holder's pro rata share, for purposes of this right of first refusal, is equal to the ratio of (a) the number of shares of Common Stock then owned by such Preferred Holder (assuming full conversion of the Shares and exercise of all outstanding convertible securities, rights, options and warrants, directly or indirectly, into Common Stock held by such Preferred Holder) to (b) the total number of shares of Common Stock then owned by all Preferred Holders (assuming full conversion of the Shares and exercise of all outstanding convertible securities, rights, options and warrants, directly or indirectly, into Common Stock held by all the Preferred Holders). For purposes of this Section 4.1, a Preferred Holder includes any general partner, managing member and affiliates (including Affiliated Funds) of a Preferred Holder. A Preferred Holder who chooses to exercise the right of first refusal may designate as purchasers under such right itself and/or its partners or affiliates (including Affiliated Funds), in such proportions as it deems appropriate.

(a) "**New Securities**" shall mean any capital stock (including Common Stock and/or Preferred Stock) of the Company whether now authorized or not, and rights, convertible securities, options or warrants to purchase such capital stock, and securities of any type whatsoever that are, or may become, exercisable or convertible into capital stock; provided that the term "**New Securities**" does not include:

(i) the Shares and the Preferred Conversion Stock; or

(ii) securities excluded from the definition of Additional Shares of Common Stock pursuant to Article FOURTH Section B.4(d)(i)(D)(I)-(V) of the Restated Certificate of Incorporation, as such provision is amended, modified, supplemented or replaced.

21

(b) In the event the Company proposes to undertake an issuance of New Securities, it shall give each Preferred Holder written notice of its intention, describing the type of New Securities, and their price and the general terms upon which the Company proposes to issue the same. Each Preferred Holder shall have twenty (20) days after any such notice is mailed or delivered to agree to purchase such Holder's pro rata share of such New Securities for the price and upon the terms specified in the notice by giving written notice to the Company and stating therein the quantity of New Securities to be purchased. If any Preferred Holder fails to so agree in writing within such twenty (20) day period to purchase such Holder's full pro rata share of an offering of New Securities (a "**Nonpurchasing Holder**"), then such Nonpurchasing Holder shall forfeit the right hereunder to purchase that part of such Nonpurchasing Holder's pro rata share of such New Securities that such Nonpurchasing Holder did not so agree to purchase. The Company shall promptly give each Preferred Holder who has timely agreed to purchase such Holder's full pro rata share of such offering of New Securities (a "**Purchasing Holder**") written notice of the failure of any Nonpurchasing Holder to purchase such Nonpurchasing Holder's full pro rata share of such offering of New Securities (the "**Overallotment Notice**"). Each Purchasing Holder shall have a right of overallotment such that such Purchasing Holder may agree to purchase a portion of the Nonpurchasing Holders' unpurchased pro rata shares of such offering on a pro rata basis according to the relative pro rata shares of the Purchasing Holders, at any time within five (5) days after receiving the Overallotment Notice.

(c) In the event the Preferred Holders fail to exercise fully the right of first refusal within said twenty (20) day period plus five (5) days (the "**Election Period**"), the Company shall have ninety (90) days thereafter to sell or enter into an agreement (pursuant to which the sale of New Securities covered thereby shall be closed, if at all, within ninety (90) days from the date of said agreement) to sell that portion of the New Securities with respect to which the Preferred Holders' right of first refusal option set forth in this Section 4.1 was not exercised, at a price and upon terms no more favorable to the purchasers thereof than specified in the Company's notice to Preferred Holders delivered pursuant to Section 4.1(b). In the event the Company has not sold within such ninety (90) day period following the Election Period, or such ninety (90) day period following the date of said agreement, the Company shall not thereafter issue or sell any New Securities without first again offering such securities to the Preferred Holders in the manner provided in this Section 4.1.

(d) The right of first refusal granted under this Agreement shall expire upon, and shall not be applicable to, (i) the Initial Public Offering or (ii) on the first date upon which no Shares are outstanding with respect to the Preferred Holders.

**Section 5**  
**Miscellaneous**

5.1 *Amendment.* Except as expressly provided herein, neither this Agreement nor any term hereof may be amended, waived, discharged or terminated other than by a written instrument referencing this Agreement and signed by the Company and the Holders holding at least a majority of the Registrable Securities (excluding any of such shares that have been sold to the public or pursuant to Rule 144). Any such amendment, waiver, discharge or termination effected in

22

accordance with this paragraph shall be binding upon each Holder and each future holder of all such securities of Holder. Each Holder acknowledges that by the operation of this paragraph, the Holders of a majority of the Registrable Securities (excluding any of such shares that have been sold to the public or pursuant to Rule 144) will have the right and power to diminish or eliminate all rights of such Holder under this Agreement.

5.2 *Notices.* All notices and other communications required or permitted hereunder shall be in writing and shall be mailed by registered or certified mail, postage prepaid, sent by facsimile or electronic mail or otherwise delivered by hand or by messenger addressed:

(a) if to an Investor, at the Investor's address, facsimile number or electronic mail address as shown in the Company's records, as may be updated in accordance with the provisions hereof and required copies (which shall not constitute notice) shall be sent to Todd Finger, McDermott, Will & Emery, 340 Madison Avenue, New York, NY 10173-1922 and Richard Birns, Boies, Schiller & Flexner LLP, 575 Lexington Avenue, 7th Floor, New York, NY 10022 (facsimile: 212-446-2350; electronic mail address: rbirns@bsflp.com);

(b) if to any Holder, at such address, facsimile number or electronic mail address as shown in the Company's records, or, until any such holder so furnishes an address, facsimile number or electronic mail address to the Company, then to and at the address of the last holder of such shares for which the Company has contact information in its records; or

(c) if to the Company, one copy should be sent to T2 Biosystems, 101 Hartwell Avenue, Lexington, MA 02421, Attn: Chief Executive Officer, or at such other address as the Company shall have furnished to the Investors, with a required copy (which shall not constitute notice) to Mark J. Macenka, Esq., Goodwin Procter, LLP, Exchange Place, Boston, MA 02109.

Each such notice or other communication shall for all purposes of this Agreement be treated as effective or having been given when delivered if delivered personally, or, if sent by mail, at the earlier of its receipt or 72 hours after the same has been deposited in a regularly maintained receptacle for the deposit of the United States mail, addressed and mailed as aforesaid or, if sent by facsimile, upon confirmation of facsimile transfer or, if sent by electronic mail, upon confirmation of delivery when directed to the electronic mail address set forth on the Schedule of Investors.

5.3 *Governing Law.* This Agreement shall be governed by and construed in accordance with the General Corporation Law of the State of Delaware as to matters within the scope thereof, and as to all other matters shall be governed by and construed in accordance with the internal laws of the Commonwealth of Massachusetts, without regard to its principles of conflicts of laws.

5.4 *Successors and Assigns.* Except as otherwise provided herein, the provisions of this Agreement shall inure to the benefit of, and be binding upon, the successors, assigns, heirs, executors and administrators of the parties hereto.

5.5 *Entire Agreement.* This Agreement and the exhibits hereto constitute the full and entire understanding and agreement between the parties with regard to the subjects hereof and supercedes all prior written or oral agreements and understandings relating to such subject matter.

23

No party hereto shall be liable or bound to any other party in any manner with regard to the subjects hereof or thereof by any warranties, representations or covenants except as specifically set forth herein.

5.6 *Delays or Omissions.* Except as expressly provided herein, no delay or omission to exercise any right, power or remedy accruing to any party to this Agreement upon any breach or default of any other party under this Agreement shall impair any such right, power or remedy of such non-defaulting 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. All remedies, either under this Agreement or by law or otherwise afforded to any party to this Agreement, shall be cumulative and not alternative.

5.7 *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 such court will replace such illegal, void or unenforceable provision of this Agreement with a valid and enforceable provision that will achieve, to the extent possible, the same economic, business and other purposes of the illegal, void or unenforceable provision. The balance of this Agreement shall be enforceable in accordance with its terms.

5.8 *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. All references in this Agreement to sections, paragraphs and exhibits shall, unless otherwise provided, refer to sections and paragraphs hereof and exhibits attached hereto.

5.9 *Counterparts.* This Agreement may be executed in any number of counterparts, each of which shall be enforceable against the parties that execute such counterparts, and all of which together shall constitute one instrument.

5.10 *Teletype Execution and Delivery.* A facsimile, teletype or other reproduction of this Agreement may be executed by one or more parties hereto and delivered by such party by facsimile or any similar electronic transmission device pursuant to which the signature of or on behalf of such party can be seen. Such execution and delivery shall be considered valid, binding and effective for all purposes. At the request of any party hereto, all parties hereto agree to execute and deliver an original of this Agreement as well as any facsimile, teletype or other reproduction hereof.

5.11 *Further Assurances.* Each party hereto agrees to execute and deliver, by the proper exercise of its corporate, limited liability company, partnership or other powers, all such other and additional instruments and documents and do all such other acts and things as may be necessary to more fully effectuate this Agreement.

24

5.12 *Aggregation of Stock.* All shares of Common Stock and Preferred Stock held or acquired by affiliated entities or persons or entities under common investment management or control shall be aggregated together for the purpose of determining the availability of any rights or obligations under this Agreement.

5.13 *Termination of Investors' Rights Agreement.* By execution of this Agreement, the Company and the other parties to the Investors' Rights Agreement that are parties to this Agreement hereby acknowledge and agree that, effective as of the date hereof, the Investors' Rights Agreement is hereby terminated and shall be of no further force of effect.

5.14 *Additional Parties.* Additional Investors (as defined in the Purchase Agreement) who purchase shares of Preferred Stock from the Company pursuant to the terms of the Purchase Agreement after the effective date of this Agreement, as a condition to such purchase, shall become a party to this Agreement by executing a signature page to this Agreement, and no consent or waiver of any other party hereto, other than the Company, shall be required to add any such additional party.

*[Remainder of Page Intentionally Left Blank]*

25

IN WITNESS WHEREOF, the parties hereto have executed this **Fourth Amended and Restated Investors' Rights Agreement** effective as of the day and year first above written.

**T2 BIOSYSTEMS, INC.**  
a Delaware corporation

By: /s/ John McDonough  
Name: John McDonough  
Title: President and Chief Executive Officer

\*\*\*T2 Biosystems, Inc. — Fourth Amended and Restated Investors' Rights Agreement\*\*\*

IN WITNESS WHEREOF, the parties hereto have executed this **Fourth Amended and Restated Investors' Rights Agreement** effective as of the day and year first above written.

**INVESTORS:**

**FLAGSHIP VENTURES FUND 2004, L.P.**

By: Flagship Ventures General Partner LLC,  
Its General Partner

By: /s/ Noubar Afeyan  
Name: Noubar Afeyan  
Title: Manager

Address: Flagship Ventures  
One Memorial Drive, 7<sup>th</sup> Floor  
Cambridge, MA 02142

**FLAGSHIP VENTURES FUND IV, L.P.**

By its General Partner  
Flagship Ventures Fund IV General Partner LLC

By: /s/ Noubar B. Afeyan  
Name: Noubar B. Afeyan  
Title: Manager

Address: Flagship Ventures  
One Memorial Drive, 7<sup>th</sup> Floor  
Cambridge, MA 02142

**POLARIS VENTURE PARTNERS V, L.P.**  
By: Polaris Venture Management Co. V, L.L.C.  
Its General Partner

By: /s/ William E. Bilodeau  
William E. Bilodeau  
Attorney-in-fact

Address: Polaris Venture Partners  
1000 Winter Street, Suite 3350  
Waltham, MA 02451

**POLARIS VENTURE PARTNERS  
ENTREPRENEURS' FUND V, L.P.**  
By: Polaris Venture Management Co. V, L.L.C.  
Its General Partner

By: /s/ William E. Bilodeau  
William E. Bilodeau  
Attorney-in-fact

Address: Polaris Venture Partners  
1000 Winter Street, Suite 3350  
Waltham, MA 02451

**POLARIS VENTURE PARTNERS  
FOUNDERS' FUND V, L.P.**  
By: Polaris Venture Management Co. V, L.L.C.  
Its General Partner

By: /s/ William E. Bilodeau  
William E. Bilodeau  
Attorney-in-fact

Address: Polaris Venture Partners  
1000 Winter Street, Suite 3350  
Waltham, MA 02451

**POLARIS VENTURE PARTNERS SPECIAL  
FOUNDERS' FUND V, L.P.**  
By: Polaris Venture Management Co. V, L.L.C.  
Its General Partner

By: /s/ William E. Bilodeau  
William E. Bilodeau  
Attorney-in-fact

Address: Polaris Venture Partners  
1000 Winter Street, Suite 3350  
Waltham, MA 02451

**FLYBRIDGE CAPITAL PARTNERS I, L.P.**  
By: Flybridge Capital Partners G.P. I, L.L.C.  
Its General Partner

By: /s/ Michael A. Greeley  
Name: Michael A. Greeley  
Title: Member and Manager

Address: Flybridge Capital Partners  
500 Boylston Street, 18<sup>th</sup> Floor  
Boston, MA 02116

**FLYBRIDGE CAPITAL PARTNERS II, L.P.**  
By: Flybridge Capital Partners G.P. II, L.L.C.  
Its General Partner

By: /s/ Michael A. Greeley  
Name: Michael A. Greeley  
Title: Member and Manager

Address: Flybridge Capital Partners  
500 Boylston Street, 18<sup>th</sup> Floor  
Boston, MA 02116

**PARTNERS HEALTHCARE SYSTEM  
POOLED INVESTMENT ACCOUNTS**

By: Partners Healthcare  
Its: Managing General Partner

By: /s/ John Barker  
Name: John Barker  
Title: Chief Investment Officer

Address: 101 Merrimac St., 4th Fl.  
Boston, MA 02114  
Attn: Jennifer Schmelter

**PHYSIC VENTURES, L.P.**  
By: Physic Ventures Management, L.L.C.,  
Its General Partner

By: /s/ William Rosenzweig  
Name: William Rosenzweig  
Title: Managing Partner

Address: Phisic Ventures, L.P.  
200 California Street, 5<sup>th</sup> Floor  
San Francisco, CA 94111

\*\*\*T2 Biosystems, Inc. — Fourth Amended and Restated Investors' Rights Agreement\*\*\*

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**ARCUS VENTURES FUND, L.P.**

By: /s/ James B. Dougherty  
Name: JAMES B. DOUGHERTY  
Title: GENERAL PARTNER

Address: 55 Broad Street, Suite 1840  
New York, NY 10004

\*\*\*T2 Biosystems, Inc. — Fourth Amended and Restated Investors' Rights Agreement\*\*\*

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**CAMROS CAPITAL, LLC**

By: /s/ Parviz Tayebati  
Name: Parviz Tayebati  
Title: CEO

Address: 134 Farm Road  
Sherborn, MA 01770

\*\*\*T2 Biosystems, Inc. — Fourth Amended and Restated Investors' Rights Agreement\*\*\*

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**WS INVESTMENT COMPANY, LLC (2010A)**

By: /s/ [ILLEGIBLE]  
Name:  
Title:

Address: 650 Page Mill Road  
Palo Alto, CA 94304

**WS INVESTMENT COMPANY, LLC (2011A)**

By: /s/ [ILLEGIBLE]  
Name:  
Title:

Address: 650 Page Mill Road  
Palo Alto, CA 94304

**WS INVESTMENT COMPANY, LLC (2013A)**

By: /s/ [ILLEGIBLE]  
Name:  
Title:

Address: 650 Page Mill Road  
Palo Alto, CA 94304

\*\*\*T2 Biosystems, Inc. — Fourth Amended and Restated Investors' Rights Agreement\*\*\*

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**AISLING CAPITAL III, LP**

/s/ [ILLEGIBLE]  
Name: ILLEGIBLE  
Title: CFO

Aisling Capital III, L.P.  
888 Seventh Avenue, 30th Floor

New York, NY 10106  
Attn: Chief Financial Officer  
Fax: 212 651 6379

With a required copy to:

McDermott Will & Emery LLP  
340 Madison Avenue  
New York, NY 10173-1922  
Attn: Todd Finger  
Fax: 212 547 5444

\*\*\*T2 Biosystems, Inc. — Fourth Amended and Restated Investors' Rights Agreement\*\*\*

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**BROAD STREET PRINCIPAL INVESTMENTS,  
L.L.C.**

By: /s/ [ILLEGIBLE]  
Name: [ILLEGIBLE]  
Title: Vice President

**BRIDGE STREET 2013 HOLDINGS, L.P.**

By: Bridge Street Opportunity Advisors, L.L.C.,  
its General Partner

By: /s/ [ILLEGIBLE]  
Name: [ILLEGIBLE]  
Title: Vice President

**MBD 2013 HOLDINGS, L.P.**

By: MBD Advisors, L.L.C.,  
its General Partner

By: /s/ [ILLEGIBLE]  
Name: [ILLEGIBLE]  
Title: Vice President

Address: 200 West Street  
New York, NY 10282  
Attn: TJ Carella

With a required copy to:

Boies, Schiller & Flexner LLP  
575 Lexington Avenue, 7th Floor  
New York, NY 10022  
Attn: Richard Birms  
Fax: 212-446-2350  
Email: rbirms@bsflp.com

\*\*\*T2 Biosystems, Inc. — Fourth Amended and Restated Investors' Rights Agreement\*\*\*

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**MICHAEL CIMA**

/s/ Michael Cima  
Name: Michael Cima

\*\*\*T2 Biosystems, Inc. — Fourth Amended and Restated Investors' Rights Agreement\*\*\*

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EXHIBIT A

INVESTORS

Flagship Ventures Fund 2004, L.P.  
Flagship Ventures Fund IV, 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.  
Flybridge Capital Partners I, L.P.  
Flybridge Capital Partners II, L.P.  
Partners Healthcare System Pooled Investment Accounts  
In-Q-Tel, Inc.  
Physic Ventures, L.P.  
Arcus Ventures Fund, L.P.  
RA Capital Healthcare Fund, LP  
Blackwell Partners, LLC  
Camros Capital, LLC  
WS Investment Company, LLC (2010A)

WS Investment Company, LLC (2011A)  
WS Investment Company, LLC (2013A)  
Aisling Capital III, LP  
Broad Street Principal Investments, L.L.C.  
Bridge Street 2013 Holdings, L.P.  
MBD 2013 Holdings, L.P.  
Michael Cima

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## T2 BIOSYSTEMS, INC.

AMENDED AND RESTATED  
2006 EMPLOYEE, DIRECTOR AND CONSULTANT STOCK PLAN

(as amended July 1, 2014)

1. DEFINITIONS.

Unless otherwise specified or unless the context otherwise requires, the following terms, as used in this T2 Biosystems, Inc. Amended and Restated 2006 Employee, Director and Consultant Stock Plan, have the following meanings:

Administrator means the Board of Directors, unless it has delegated power to act on its behalf to the Committee, in which case the Administrator means the Committee.

Affiliate means a corporation which, for purposes of Section 424 of the Code, is a parent or subsidiary of the Company, direct or indirect.

Agreement means an agreement between the Company and a Participant delivered pursuant to the Plan, in such form as the Administrator shall approve.

Board of Directors means the Board of Directors of the Company.

Change of Control means the occurrence of any of the following events:

- (i) Ownership. Any "Person" (as such term is used in Sections 13(d) and 14(d) of the Securities Exchange Act of 1934, as amended) becomes the "Beneficial Owner" (as defined in Rule 13d-3 under said Act), directly or indirectly, of securities of the Company representing 50% or more of the total voting power represented by the Company's then outstanding voting securities (excluding for this purpose the Company or its Affiliates or any employee benefit plan of the Company) pursuant to a transaction or a series of related transactions which the Board of Directors does not approve; or
- (ii) Merger/Sale of Assets. A merger or consolidation of the Company' whether or not approved by the Board of Directors, other than a merger or consolidation which would result in the voting securities of the Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity or the parent of such corporation) at least 50% of the total voting power represented by the voting securities of the Company or such surviving entity or parent of such corporation outstanding immediately after such merger or consolidation, or the

shareholders of the Company approve an agreement for the sale or disposition by the Company of all or substantially all of the Company's assets.

Code means the United States Internal Revenue Code of 1986, as amended.

Committee means the committee of the Board of Directors to which the Board of Directors has delegated power to act under or pursuant to the provisions of the Plan.

Common Stock means shares of the Company's common stock, \$0.001 par value per share.

Company means T2 Biosystems, Inc., a Delaware corporation.

Disability or Disabled means permanent and total disability as defined in Section 22(e)(3) of the Code.

Employee means any employee of the Company or of an Affiliate (including, without limitation, an employee who is also serving as an officer or director of the Company or of an Affiliate), designated by the Administrator to be eligible to be granted one or more Stock Rights under the Plan.

Fair Market Value of a Share of Common Stock means:

- (i) If the Common Stock is listed on a national securities exchange or traded in the over-the-counter market and sales prices are regularly reported for the Common Stock, the closing or last price of the Common Stock on the composite tape or other comparable reporting system for the trading day immediately preceding the applicable date;
- (ii) If the Common Stock is not traded on a national securities exchange but is traded on the over-the-counter market, if sales prices are not regularly reported for the Common Stock for the trading day referred to in clause (i), and if bid and asked prices for the Common Stock are regularly reported, the mean between the bid and the asked price for the Common Stock at the close of trading in the over-the-counter market for the trading day on which Common Stock was traded immediately preceding the applicable date; and
- (iii) If the Common Stock is neither listed on a national securities exchange nor traded in the over-the-counter market, such value as the Administrator, in good faith, shall determine.

ISO means an option meant to qualify as an incentive stock option under Section 422 of the Code.

2

Non-Qualified Option means an option which is not intended to qualify as an ISO.

Option means an ISO or Non-Qualified Option granted under the Plan.

Participant means an Employee, director or consultant of the Company or an Affiliate to whom one or more Stock Rights are granted under the Plan. As used herein, "Participant" shall include "Participant's Survivors" where the context requires.

Plan means this T2 Biosystems, Inc. Amended and Restated 2006 Employee, Director and Consultant Stock Plan.

Shares means shares of the Common Stock as to which Stock Rights have been or may be granted under the Plan or any shares of capital stock into which the Shares are changed or for which they are exchanged within the provisions of Paragraph 3 of the Plan. The Shares issued under the Plan may be authorized and unissued shares or shares held by the Company in its treasury, or both.

Stock-Based Award means a grant by the Company under the Plan of an equity award or an equity based award which is not an Option or a Stock Grant.

Stock Grant means a grant by the Company of Shares under the Plan.

Stock Right means a right to Shares or the value of Shares of the Company granted pursuant to the Plan - an ISO, a Non-Qualified Option, a Stock Grant or a Stock-Based Award.



Survivor means a deceased Participant's legal representatives and/or any person or persons who acquired the Participant's rights to a Stock Right by will or by the laws of descent and distribution.

2. PURPOSES OF THE PLAN.

The Plan is intended to encourage ownership of Shares by Employees and directors of and certain consultants to the Company in order to attract and retain such people, to induce them to work for the benefit of the Company or of an Affiliate and to provide additional incentive for them to promote the success of the Company or of an Affiliate. The Plan provides for the granting of ISOs, Non-Qualified Options, Stock Grants and Stock-Based Awards.

3. SHARES SUBJECT TO THE PLAN.

- (a) The number of Shares which may be issued from time to time pursuant to this Plan shall be Six Million, Three Hundred Thirty Two Thousand, Eight Hundred Eighty Two (6,332,882), or the equivalent of such number of Shares after the Administrator, in its sole discretion, has interpreted the effect of any stock split, stock dividend, combination, recapitalization or similar transaction in accordance with Paragraph 24 of the Plan.

3

- (b) If an Option ceases to be "outstanding," in whole or in part (other than by exercise), or if the Company shall reacquire (at not more than its original issuance price) any Shares issued pursuant to a Stock Grant or Stock-Based Award, or if any Stock Right expires or is forfeited, cancelled, or otherwise terminated or results in any Shares not being issued, the unissued Shares which were subject to such Stock Right shall again be available for issuance from time to time pursuant to this Plan.

4. ADMINISTRATION OF THE PLAN.

The Administrator of the Plan will be the Board of Directors, except to the extent the Board of Directors delegates its authority to the Committee, in which case the Committee shall be the Administrator. Subject to the provisions of the Plan, the Administrator is authorized to:

- (a) Interpret the provisions of the Plan and all Stock Rights and to make all rules and determinations which it deems necessary or advisable for the administration of the Plan;
- (b) determine the number of Shares for which a Stock Right or Stock Rights shall be granted;
- (c) Determine which Employees, directors and consultants shall be granted Stock Rights;
- (d) Specify the terms and conditions upon which a Stock Right or Stock Rights may be granted; and
- (e) Make changes to any outstanding Stock Right, including, without limitation, to reduce or increase the exercise price or purchase price, accelerate the vesting schedule or extend the expiration date, provided that no such change shall impair the rights of a Participant under any grant previously made without such Participant's consent;
- (f) Buy out for a payment in cash or Shares, a Stock Right previously granted and/or cancel any such Stock Right and grant in substitution therefor other Stock Rights, covering the same or a different number of Shares and having an exercise price or purchase price per share which may be lower or higher than the exercise price or purchase price of the cancelled Stock Right, based on such terms and conditions as the Administrator shall establish and the Participant shall accept; and
- (g) Adopt any sub-plans applicable to residents of any specified jurisdiction as it deems necessary or appropriate in order to comply with or take advantage of any tax or other laws applicable to the Company or to Plan Participants or to otherwise facilitate the administration of the Plan, which sub-plans may include additional restrictions or conditions applicable to Stock Rights or Shares issuable pursuant to a Stock Right.

4

provided, however, that all such interpretations, rules, determinations, terms and conditions shall be made and prescribed in the context of preserving the tax status under Section 422 of the Code of those Options which are designated as ISOs. Subject to the foregoing, the interpretation and construction by the Administrator of any provisions of the Plan or of any Stock Right granted under it shall be final, unless otherwise determined by the Board of Directors, if the Administrator is the Committee. In addition, if the Administrator is the Committee, the Board of Directors may take any action under the Plan that would otherwise be the responsibility of the Committee.

To the extent permitted under applicable law, the Board of Directors or the Committee may allocate all or any portion of its responsibilities and powers to any one or more of its members and may delegate all or any portion of its responsibilities and powers to any other person selected by it. The Board of Directors or the Committee may revoke any such allocation or delegation at any time.

5. ELIGIBILITY FOR PARTICIPATION.

The Administrator will, in its sole discretion, name the Participants in the Plan, provided, however, that each Participant must be an Employee, director or consultant of the Company or of an Affiliate at the time a Stock Right is granted. Notwithstanding the foregoing, the Administrator may authorize the grant of a Stock Right to a person not then an Employee, director or consultant of the Company or of an Affiliate; provided, however, that the actual grant of such Stock Right shall be conditioned upon such person becoming eligible to become a Participant at or prior to the time of the execution of the Agreement evidencing such Stock Right. ISOs may be granted only to Employees. Non-Qualified Options, Stock Grants and Stock-Based Awards may be granted to any Employee, director or consultant of the Company or an Affiliate. The granting of any Stock Right to any individual shall neither entitle that individual to, nor disqualify him or her from, participation in any other grant of Stock Rights.

6. TERMS AND CONDITIONS OF OPTIONS.

Each Option shall be set forth in writing in an Option Agreement, duly executed by the Company and, to the extent required by law or requested by the Company, by the Participant. The Administrator may provide that Options be granted subject to such terms and conditions, consistent with the terms and conditions specifically required under this Plan, as the Administrator may deem appropriate including, without limitation, subsequent approval by the shareholders of the Company of this Plan or any amendments thereto. The Option Agreements shall be subject to at least the following terms and conditions:

- (a) Non-Qualified Options. Each Option intended to be a Non-Qualified Option shall be subject to the terms and conditions which the Administrator determines to be appropriate and in the best interest of the Company, subject to the following minimum standards for any such Non-Qualified Option:
- (i) Option Price. Each Option Agreement shall state the option price (per share) of the Shares covered by each Option, which option price shall be

5

determined by the Administrator but shall not be less than the Fair Market Value per share of Common Stock.

- (ii) Number of Shares. Each Option Agreement shall state the number of Shares to which it pertains.
- (iii) Option Periods. Each Option Agreement shall state the date or dates on which it first is exercisable and the date after which it may no longer be exercised, and may provide that the Option rights accrue or become exercisable in installments over a period of months or years, or upon the occurrence of certain conditions or the attainment of stated goals or events.

- (iv) Option Conditions. Exercise of any Option may be conditioned upon the Participant's execution of a Share purchase agreement in form satisfactory to the Administrator providing for certain protections for the Company and its other shareholders, including requirements that:
  - (A) The Participant's or the Participant's Survivors' right to sell or transfer the Shares may be restricted; and
  - (B) The Participant or the Participant's Survivors may be required to execute letters of investment intent and must also acknowledge that the Shares will bear legends noting any applicable restrictions.
- (b) ISOs. Each Option intended to be an ISO shall be issued only to an Employee and be subject to the following terms and conditions, with such additional restrictions or changes as the Administrator determines are appropriate but not in conflict with Section 422 of the Code and relevant regulations and rulings of the Internal Revenue Service:
  - (i) Minimum standards. The ISO shall meet the minimum standards required of Non-Qualified Options, as described in Paragraph 6(a) above, except clause (i) thereunder.
  - (ii) Option Price. Immediately before the ISO is granted, if the Participant owns, directly or by reason of the applicable attribution rules in Section 424(d) of the Code:
    - (A) 10% or less of the total combined voting power of all classes of stock of the Company or an Affiliate, the Option price per share of the Shares covered by each ISO shall not be less than 100% of the Fair Market Value per share of the Shares on the date of the grant of the Option; or
    - (B) More than 10% of the total combined voting power of all classes of stock of the Company or an Affiliate, the Option price per share of

6

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the Shares covered by each ISO shall not be less than 110% of the Fair Market Value on the date of grant.

- (iii) Term of Option. For Participants who own:
  - (A) 10% or less of the total combined voting power of all classes of stock of the Company or an Affiliate, each ISO shall terminate not more than ten years from the date of the grant or at such earlier time as the Option Agreement may provide; or
  - (B) More than 10% of the total combined voting power of all classes of stock of the Company or an Affiliate, each ISO shall terminate not more than five years from the date of the grant or at such earlier time as the Option Agreement may provide.
- (iv) Limitation on Yearly Exercise. The Option Agreements shall restrict the amount of ISOs which may become exercisable in any calendar year (under this or any other ISO plan of the Company or an Affiliate) so that the aggregate Fair Market Value (determined at the time each ISO is granted) of the stock with respect to which ISOs are exercisable for the first time by the Participant in any calendar year does not exceed \$100,000.

## 7. TERMS AND CONDITIONS OF STOCK GRANTS

Each offer of a Stock Grant to a Participant shall state the date prior to which the Stock Grant must be accepted by the Participant, and the principal terms of each Stock Grant shall be set forth in an Agreement, duly executed by the Company and, to the extent required by law or requested by the Company, by the Participant. The Agreement shall be in a form approved by the Administrator and shall contain terms and conditions which the Administrator determines to be appropriate and in the best interest of the Company, subject to the following minimum standards:

- (a) Each Agreement shall state the purchase price (per share), if any, of the Shares covered by each Stock Grant, which purchase price shall be determined by the Administrator but shall not be less than the minimum consideration required by the Delaware General Corporation Law on the date of the grant of the Stock Grant;
- (b) Each Agreement shall state the number of Shares to which the Stock Grant pertains; and
- (c) Each Agreement shall include the terms of any right of the Company to restrict or reacquire the Shares subject to the Stock Grant, including the time and events upon which such rights shall accrue and the purchase price therefor, if any.

7

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## 8. TERMS AND CONDITIONS OF OTHER STOCK-BASED AWARDS

The Board shall have the right to grant other Stock-Based Awards based upon the Common Stock having such terms and conditions as the Board may determine, including, without limitation, the grant of Shares based upon certain conditions, the grant of securities convertible into Shares and the grant of stock appreciation rights, phantom stock awards or stock units. The principal terms of each Stock-Based Award shall be set forth in an Agreement, duly executed by the Company and, to the extent required by law or requested by the Company, by the Participant. The Agreement shall be in a form approved by the Administrator and shall contain terms and conditions which the Administrator determines to be appropriate and in the best interest of the Company.

## 9. EXERCISE OF OPTIONS AND ISSUE OF SHARES

An Option (or any part or installment thereof) shall be exercised by giving written notice to the Company or its designee, together with provision for payment of the full purchase price in accordance with this Paragraph for the Shares as to which the Option is being exercised, and upon compliance with any other condition(s) set forth in the Option Agreement. Such notice shall be signed by the person exercising the Option, shall state the number of Shares with respect to which the Option is being exercised and shall contain any representation required by the Plan or the Option Agreement. Payment of the purchase price for the Shares as to which such Option is being exercised shall be made (a) in United States dollars in cash or by check, or (b) at the discretion of the Administrator, through delivery of shares of Common Stock having a Fair Market Value equal as of the date of the exercise to the cash exercise price of the Option and held for at least six months, or (c) at the discretion of the Administrator, by having the Company retain from the shares otherwise issuable upon exercise of the Option, a number of shares having a Fair Market Value equal as of the date of exercise to the exercise price of the Option, or (d) at the discretion of the Administrator, by delivery of the grantee's personal recourse note bearing interest payable not less than annually at no less than 100% of the applicable Federal rate, as defined in Section 1274(d) of the Code, or (e) at the discretion of the Administrator, in accordance with a cashless exercise program established with a securities brokerage firm, and approved by the Administrator, or (f) at the discretion of the Administrator, by any combination of (a), (b), (c), (d) and (e) above or (g) at the discretion of the Administrator, payment of such other lawful consideration as the Administrator may determine. Notwithstanding the foregoing, the Administrator shall accept only such payment on exercise of an ISO as is permitted by Section 422 of the Code.

The Company shall then reasonably promptly deliver the Shares as to which such Option was exercised to the Participant (or to the Participant's Survivors, as the case may be). In determining what constitutes "reasonably promptly," it is expressly understood that the issuance and delivery of the Shares may be delayed by the Company in order to comply with any law or regulation (including, without limitation, state securities or "blue sky" laws) which requires the Company to take any action with respect to the Shares prior to their issuance. The Shares shall, upon delivery, be fully paid, non-assessable Shares.

The Administrator shall have the right to accelerate the date of exercise of any installment of any Option; provided that the Administrator shall not accelerate the exercise date of any installment of any Option granted to an Employee as an ISO (and not previously converted into a Non-Qualified Option pursuant to Paragraph 27) if such acceleration would

8

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violate the annual vesting limitation contained in Section 422(d) of the Code, as described in Paragraph 6(b)(ii).

The Administrator may, in its discretion, amend any term or condition of an outstanding Option provided (i) such term or condition as amended is permitted by the Plan, (ii) any such amendment shall be made only with the consent of the Participant to whom the Option was granted, or in the event of the death of the Participant, the Participant's Survivors, if the amendment is adverse to the Participant, and (iii) any such amendment of any Option shall be made only after the Administrator determines whether such amendment would constitute a "modification" of any Option which is an ISO (as that term is defined in Section 424(h) of the Code) or would cause any adverse tax consequences for the holder of such Option.

#### 10. ACCEPTANCE OF STOCK GRANTS AND STOCK-BASED AWARDS AND ISSUE OF SHARES.

A Stock Grant or Stock-Based Award (or any part or installment thereof) shall be accepted by executing the applicable Agreement and delivering it to the Company or its designee, together with provision for payment of the full purchase price, if any, in accordance with this Paragraph for the Shares as to which such Stock Grant or Stock-Based Award is being accepted, and upon compliance with any other conditions set forth in the applicable Agreement. Payment of the purchase price for the Shares as to which such Stock Grant or Stock-Based Award is being accepted shall be made (a) in United States dollars in cash or by check, or (b) at the discretion of the Administrator, through delivery of shares of Common Stock held for at least six months and having a Fair Market Value equal as of the date of acceptance of the Stock Grant or Stock-Based Award to the purchase price of the Stock Grant or Stock-Based Award, or (c) at the discretion of the Administrator, by delivery of the grantee's personal recourse note bearing interest payable not less than annually at no less than 100% of the applicable Federal rate, as defined in Section 1274(d) of the Code, or (d) at the discretion of the Administrator, by any combination of (a), (b) and (c) above; or (e) at the discretion of the Administrator, payment of such other lawful consideration as the Administrator may determine.

The Company shall then, if required by the applicable Agreement, reasonably promptly deliver the Shares as to which such Stock Grant or Stock-Based Award was accepted to the Participant (or to the Participant's Survivors, as the case may be), subject to any escrow provision set forth in the applicable Agreement. In determining what constitutes "reasonably promptly," it is expressly understood that the issuance and delivery of the Shares may be delayed by the Company in order to comply with any law or regulation (including, without limitation, state securities or "blue sky" laws) which requires the Company to take any action with respect to the Shares prior to their issuance.

The Administrator may, in its discretion, amend any term or condition of an outstanding Stock Grant, Stock-Based Award or applicable Agreement provided (i) such term or condition as amended is permitted by the Plan, and (ii) any such amendment shall be made only with the consent of the Participant to whom the Stock Grant or Stock-Based Award was made, if the amendment is adverse to the Participant.

9

#### 11. RIGHTS AS A SHAREHOLDER.

No Participant to whom a Stock Right has been granted shall have rights as a shareholder with respect to any Shares covered by such Stock Right, except after due exercise of the Option or acceptance of the Stock Grant or as set forth in any Agreement, and tender of the full purchase price, if any, for the Shares being purchased pursuant to such exercise or acceptance and registration of the Shares in the Company's share register in the name of the Participant.

#### 12. ASSIGNABILITY AND TRANSFERABILITY OF STOCK RIGHTS.

By its terms, a Stock Right granted to a Participant shall not be transferable by the Participant other than (i) by will or by the laws of descent and distribution, or (ii) as approved by the Administrator in its discretion and set forth in the applicable Agreement. Notwithstanding the foregoing, an ISO transferred except in compliance with clause (i) above shall no longer qualify as an ISO. The designation of a beneficiary of a Stock Right by a Participant, with the prior approval of the Administrator and in such form as the Administrator shall prescribe, shall not be deemed a transfer prohibited by this Paragraph. Except as provided above, a Stock Right shall only be exercisable or may only be accepted, during the Participant's lifetime, by such Participant (or by his or her legal representative) and shall not be assigned, pledged or hypothecated in any way (whether by operation of law or otherwise) and shall not be subject to execution, attachment or similar process. Any attempted transfer, assignment, pledge, hypothecation or other disposition of any Stock Right or of any rights granted thereunder contrary to the provisions of this Plan, or the levy of any attachment or similar process upon a Stock Right, shall be null and void.

#### 13. EFFECT ON OPTIONS OF TERMINATION OF SERVICE OTHER THAN "FOR CAUSE" OR DEATH OR DISABILITY.

Except as otherwise provided in a Participant's Option Agreement, in the event of a termination of service (whether as an employee, director or consultant) with the Company or an Affiliate before the Participant has exercised an Option, the following rules apply:

- (a) A Participant who ceases to be an employee, director or consultant of the Company or of an Affiliate (for any reason other than termination "for cause," Disability, or death for which events there are special rules in Paragraphs 14, 15, and 16, respectively), may exercise any Option granted to him or her to the extent that the Option is exercisable on the date of such termination of service, but only within such term as the Administrator has designated in a Participant's Option Agreement.
- (b) Except as provided in Subparagraph (c) below, or Paragraph 15 or 16, in no event may an Option intended to be an ISO, be exercised later than three months after the Participant's termination of employment.

10

- (c) The provisions of this Paragraph, and not the provisions of Paragraph 15 or 16, shall apply to a Participant who subsequently becomes Disabled or dies after the termination of employment, director status or consultancy; provided, however, in the case of a Participant's Disability or death within three months after the termination of employment, director status or consultancy, the Participant or the Participant's Survivors may exercise the Option within one year after the date of the Participant's termination of service, but in no event after the date of expiration of the term of the Option.
- (d) Notwithstanding anything herein to the contrary, if subsequent to a Participant's termination of employment, termination of director status or termination of consultancy, but prior to the exercise of an Option, the Board of Directors determines that, either prior or subsequent to the Participant's termination, the Participant engaged in conduct which would constitute "cause," then such Participant shall forthwith cease to have any right to exercise any Option.
- (e) A Participant to whom an Option has been granted under the Plan who is absent from the Company or an Affiliate because of temporary disability (any disability other than a Disability as defined in Paragraph 1 hereof), or who is on leave of absence for any purpose, shall not, during the period of any such absence, be deemed, by virtue of such absence alone, to have terminated such Participant's employment, director status or consultancy with the Company or with an Affiliate, except as the Administrator may otherwise expressly provide.
- (f) Except as required by law or as set forth in a Participant's Option Agreement, Options granted under the Plan shall not be affected by any change of a Participant's status within or among the Company and any Affiliates, so long as the Participant continues to be an employee, director or consultant of the Company or any Affiliate.

#### 14. EFFECT ON OPTIONS OF TERMINATION OF SERVICE "FOR CAUSE".

Except as otherwise provided in a Participant's Option Agreement, the following rules apply if the Participant's service (whether as an employee, director or consultant) with the Company or an Affiliate is terminated "for cause" prior to the time that all his or her outstanding Options have been exercised:

- (a) All outstanding and unexercised Options as of the time the Participant is notified his or her service is terminated "for cause" will immediately be forfeited.

11

- (b) For purposes of this Plan, "cause" shall include (and is not limited to) dishonesty with respect to the Company or any Affiliate, insubordination, substantial malfeasance or non-feasance of duty, unauthorized disclosure of confidential information, breach by the Participant of any provision of any employment, consulting, advisory, nondisclosure, non-competition or similar agreement between the Participant and the Company, and conduct substantially prejudicial to the business of the Company or any Affiliate. The determination of the Administrator as to the existence of "cause" will be conclusive on the Participant and the Company.

- (c) "Cause" is not limited to events which have occurred prior to a Participant's termination of service, nor is it necessary that the Administrator's finding of "cause" occur prior to termination. If the Administrator determines, subsequent to a Participant's termination of service but prior to the exercise of an Option, that either prior or subsequent to the Participant's termination the Participant engaged in conduct which would constitute "cause," then the right to exercise any Option is forfeited.
- (d) Any provision in an agreement between the Participant and the Company or an Affiliate, which contains a conflicting definition of "cause" for termination and which is in effect at the time of such termination, shall supersede the definition in this Plan with respect to that Participant.

15. EFFECT ON OPTIONS OF TERMINATION OF SERVICE FOR DISABILITY.

Except as otherwise provided in a Participant's Option Agreement:

- (a) A Participant who ceases to be an employee, director or consultant of the Company or of an Affiliate by reason of Disability may exercise any Option granted to such Participant:
  - (i) To the extent that the Option has become exercisable but has not been exercised on the date of Disability; and
  - (ii) In the event rights to exercise the Option accrue periodically, to the extent of a pro rata portion through the date of Disability of any additional vesting rights that would have accrued on the next vesting date had the Participant not become Disabled. The proration shall be based upon the number of days accrued in the current vesting period prior to the date of Disability.
- (b) A Disabled Participant may exercise such rights only within the period ending one year after the date of the Participant's Disability, notwithstanding that the Participant might have been able to exercise the Option as to some or all of the Shares on a later date if the Participant had not become Disabled and had continued to be an employee, director or consultant or, if earlier, within the originally prescribed term of the Option.

12

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- (c) The Administrator shall make the determination both of whether Disability has occurred and the date of its occurrence (unless a procedure for such determination is set forth in another agreement between the Company and such Participant, in which case such procedure shall be used for such determination). If requested, the Participant shall be examined by a physician selected or approved by the Administrator, the cost of which examination shall be paid for by the Company.

16. EFFECT ON OPTIONS OF DEATH WHILE AN EMPLOYEE, DIRECTOR OR CONSULTANT.

Except as otherwise provided in a Participant's Option Agreement:

- (a) In the event of the death of a Participant while the Participant is an employee, director or consultant of the Company or of an Affiliate, such Option may be exercised by the Participant's Survivors:
  - (i) To the extent that the Option has become exercisable but has not been exercised on the date of death; and
  - (ii) In the event rights to exercise the Option accrue periodically, to the extent of a pro rata portion through the date of death of any additional vesting rights that would have accrued on the next vesting date had the Participant not died. The proration shall be based upon the number of days accrued in the current vesting period prior to the Participant's date of death.
- (b) If the Participant's Survivors wish to exercise the Option, they must take all necessary steps to exercise the Option within one year after the date of death of such Participant, notwithstanding that the decedent might have been able to exercise the Option as to some or all of the Shares on a later date if he or she had not died and had continued to be an employee, director or consultant or, if earlier, within the originally prescribed term of the Option.

17. EFFECT OF TERMINATION OF SERVICE ON UNACCEPTED STOCK GRANTS.

In the event of a termination of service (whether as an employee, director or consultant) with the Company or an Affiliate for any reason before the Participant has accepted a Stock Grant, such offer shall terminate.

For purposes of this Paragraph 17 and Paragraph 18 below, a Participant to whom a Stock Grant has been offered and accepted under the Plan who is absent from work with the Company or with an Affiliate because of temporary disability (any disability other than a Disability as defined in Paragraph 1 hereof), or who is on leave of absence for any purpose, shall not, during the period of any such absence, be deemed, by virtue of such absence alone, to have terminated such Participant's employment, director status or consultancy with the Company or with an Affiliate, except as the Administrator may otherwise expressly provide.

In addition, for purposes of this Paragraph 17 and Paragraph 18 below, any change of employment or other service within or among the Company and any Affiliates shall not be

13

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treated as a termination of employment, director status or consultancy so long as the Participant continues to be an employee, director or consultant of the Company or any Affiliate.

18. EFFECT ON STOCK GRANTS OF TERMINATION OF SERVICE OTHER THAN "FOR CAUSE" OR DEATH OR DISABILITY.

Except as otherwise provided in a Participant's Stock Grant Agreement, in the event of a termination of service (whether as an employee, director or consultant), other than termination "for cause," Disability, or death for which events there are special rules in Paragraphs 19, 20, and 21, respectively, before all Company rights of repurchase shall have lapsed, then the Company shall have the right to repurchase that number of Shares subject to a Stock Grant as to which the Company's repurchase rights have not lapsed.

19. EFFECT ON STOCK GRANTS OF TERMINATION OF SERVICE "FOR CAUSE".

Except as otherwise provided in a Participant's Stock Grant Agreement, the following rules apply if the Participant's service (whether as an employee, director or consultant) with the Company or an Affiliate is terminated "for cause":

- (a) All Shares subject to any Stock Grant shall be immediately subject to repurchase by the Company at \$.01 per share.
- (b) For purposes of this Plan, "cause" shall include (and is not limited to) dishonesty with respect to the employer, insubordination, substantial malfeasance or non-feasance of duty, unauthorized disclosure of confidential information, breach by the Participant of any provision of any employment, consulting, advisory, nondisclosure, non-competition or similar agreement between the Participant and the Company, and conduct substantially prejudicial to the business of the Company or any Affiliate. The determination of the Administrator as to the existence of "cause" will be conclusive on the Participant and the Company.
- (c) "Cause" is not limited to events which have occurred prior to a Participant's termination of service, nor is it necessary that the Administrator's finding of "cause" occur prior to termination. If the Administrator determines, subsequent to a Participant's termination of service, that either prior or subsequent to the Participant's termination the Participant engaged in conduct which would constitute "cause," then the Company's right to repurchase all of such Participant's Shares shall apply.
- (d) Any provision in an agreement between the Participant and the Company or an Affiliate, which contains a conflicting definition of "cause" for termination and which is in effect at the time of such termination, shall supersede the definition in this Plan with respect to that Participant.

14

20. EFFECT ON STOCK GRANTS OF TERMINATION OF SERVICE FOR DISABILITY.

Except as otherwise provided in a Participant's Stock Grant Agreement, the following rules apply if a Participant ceases to be an employee, director or consultant of the Company or of an Affiliate by reason of Disability: to the extent the Company's rights of repurchase have not lapsed on the date of Disability, they shall be exercisable; provided, however, that in the event such rights of repurchase lapse periodically, such rights shall lapse to the extent of a pro rata portion of the Shares subject to such Stock Grant through the date of Disability as would have lapsed had the Participant not become Disabled. The proration shall be based upon the number of days accrued prior to the date of Disability.

The Administrator shall make the determination both of whether Disability has occurred and the date of its occurrence (unless a procedure for such determination is set forth in another agreement between the Company and such Participant, in which case such procedure shall be used for such determination). If requested, the Participant shall be examined by a physician selected or approved by the Administrator, the cost of which examination shall be paid for by the Company.

21. EFFECT ON STOCK GRANTS OF DEATH WHILE AN EMPLOYEE, DIRECTOR OR CONSULTANT.

Except as otherwise provided in a Participant's Stock Grant Agreement, the following rules apply in the event of the death of a Participant while the Participant is an employee, director or consultant of the Company or of an Affiliate: to the extent the Company's rights of repurchase have not lapsed on the date of death, they shall be exercisable; provided, however, that in the event such rights of repurchase lapse periodically, such rights shall lapse to the extent of a pro rata portion of the Shares subject to such Stock Grant through the date of death as would have lapsed had the Participant not died. The proration shall be based upon the number of days accrued prior to the Participant's death.

22. PURCHASE FOR INVESTMENT.

Unless the offering and sale of the Shares to be issued upon the particular exercise or acceptance of a Stock Right shall have been effectively registered under the Securities Act of 1933, as now in force or hereafter amended (the "1933 Act"), the Company shall be under no obligation to issue the Shares covered by such exercise unless and until the following conditions have been fulfilled:

- (a) The person(s) who exercise(s) or accept(s) such Stock Right shall warrant to the Company, prior to the receipt of such Shares, that such person(s) are acquiring such Shares for their own respective accounts, for investment, and not with a view to, or for sale in connection with, the distribution of any such Shares, in which event the person(s) acquiring such Shares shall be bound by the provisions of the following legend which shall be endorsed upon the certificate(s) evidencing their Shares issued pursuant to such exercise or such grant:

"The shares represented by this certificate have been taken for investment and they may not be sold or otherwise transferred by any person, including a pledgee, unless (1) either (a) a Registration

15

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Statement with respect to such shares shall be effective under the Securities Act of 1933, as amended, or (b) the Company shall have received an opinion of counsel satisfactory to it that an exemption from registration under such Act is then available, and (2) there shall have been compliance with all applicable state securities laws."

- (b) At the discretion of the Administrator, the Company shall have received an opinion of its counsel that the Shares may be issued upon such particular exercise or acceptance in compliance with the 1933 Act without registration thereunder.

23. DISSOLUTION OR LIQUIDATION OF THE COMPANY.

Upon the dissolution or liquidation of the Company, all Options granted under this Plan which as of such date shall not have been exercised and all Stock Grants and Stock-Based Awards which have not been accepted will terminate and become null and void; provided, however, that if the rights of a Participant or a Participant's Survivors have not otherwise terminated and expired, the Participant or the Participant's Survivors will have the right immediately prior to such dissolution or liquidation to exercise or accept any Stock Right to the extent that the Stock Right is exercisable or subject to acceptance as of the date immediately prior to such dissolution or liquidation. Upon the dissolution or liquidation of the Company, any outstanding Stock-Based Awards shall immediately terminate unless otherwise determined by the Administrator or specifically provided in the applicable Agreement.

24. ADJUSTMENTS.

Upon the occurrence of any of the following events, a Participant's rights with respect to any Stock Right granted to him or her hereunder shall be adjusted as hereinafter provided, unless otherwise specifically provided in a Participant's Agreement:

- (a) Stock Dividends and Stock Splits. If (i) the shares of Common Stock shall be subdivided or combined into a greater or smaller number of shares or if the Company shall issue any shares of Common Stock as a stock dividend on its outstanding Common Stock, or
- (i) additional shares or new or different shares or other securities of the Company or other non-cash assets are distributed with respect to such shares of Common Stock, the number of shares of Common Stock deliverable upon the exercise of an Option or acceptance of a Stock Grant may be appropriately increased or decreased proportionately, and appropriate adjustments may be made including, in the purchase price per share, to reflect such events.
- (b) Corporate Transactions. If the Company is to be consolidated with or acquired by another entity in a merger, sale of all or substantially all of the Company's assets other than a transaction to merely change the state of incorporation (a "Corporate Transaction"), the Administrator or the board of directors of any entity assuming the obligations of the Company hereunder (the "Successor Board"), shall, as to

16

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outstanding Options, either (i) make appropriate provision for the continuation of such Options by substituting on an equitable basis for the Shares then subject to such Options either the consideration payable with respect to the outstanding shares of Common Stock in connection with the Corporate Transaction or securities of any successor or acquiring entity; or (ii) upon written notice to the Participants, provide that all Options must be exercised (either (A) to the extent then exercisable or, (B) at the discretion of the Administrator, all Options being made fully exercisable for purposes of this Subparagraph), within a specified number of days of the date of such notice, at the end of which period the Options shall terminate; or (iii) terminate all Options in exchange for a cash payment equal to the excess of the Fair Market Value of the Shares subject to such Options (either (A) to the extent then exercisable or, (B) at the discretion of the Administrator, all Options being made fully exercisable for purposes of this Subparagraph) over the exercise price thereof.

With respect to outstanding Stock Grants, the Administrator or the Successor Board, shall either (i) make appropriate provisions for the continuation of such Stock Grants on the same terms and conditions by substituting on an equitable basis for the Shares then subject to such Stock Grants either the consideration payable with respect to the outstanding Shares of Common Stock in connection with the Corporate Transaction or securities of any successor or acquiring entity; or (ii) terminate all Stock Grants in exchange for a cash payment equal to the excess of the Fair Market Value of the Shares subject to such Stock Grants over the purchase price thereof, if any. In addition, in the event of a Corporate Transaction, the Administrator may waive any or all Company repurchase rights with respect to outstanding Stock Grants.

- (c) Recapitalization or Reorganization. In the event of a recapitalization or reorganization of the Company other than a Corporate Transaction pursuant to which securities of the Company or of another corporation are issued with respect to the outstanding shares of Common Stock, a Participant upon exercising an Option or accepting a Stock Grant after the recapitalization or reorganization shall be entitled to receive for the purchase price paid upon such exercise or acceptance of the number of replacement securities which would have been received if such Option had been exercised or Stock Grant accepted prior to such recapitalization or reorganization.
- (d) Adjustments to Stock-Based Awards. Upon the happening of any of the events described in Subparagraphs A, B or C above, any outstanding Stock-Based Award shall be appropriately adjusted to reflect the events described in such Subparagraphs. The Administrator or the Successor Board shall determine the specific adjustments to be made

- (e) Modification of ISOs. Notwithstanding the foregoing, any adjustments made pursuant to Subparagraph a, b or c above with respect to ISOs shall be made only after the Administrator determines whether such adjustments would constitute a "modification" of such ISOs (as that term is defined in Section 424(h) of the Code) or would cause any adverse tax consequences for the holders of such ISOs. If the Administrator determines that such adjustments made with respect to ISOs would constitute a modification of such ISOs, it may refrain from making such adjustments, unless the holder of an ISO specifically requests in writing that such adjustment be made and such writing indicates that the holder has full knowledge of the consequences of such "modification" on his or her income tax treatment with respect to the ISO.

25. ISSUANCES OF SECURITIES.

Except as expressly provided herein, no issuance by the Company of shares of stock of any class, or securities convertible into shares of stock of any class, shall affect, and no adjustment by reason thereof shall be made with respect to, the number or price of shares subject to Stock Rights. Except as expressly provided herein, no adjustments shall be made for dividends paid in cash or in property (including without limitation, securities) of the Company prior to any issuance of Shares pursuant to a Stock Right.

26. FRACTIONAL SHARES.

No fractional shares shall be issued under the Plan and the person exercising a Stock Right shall receive from the Company cash in lieu of such fractional shares equal to the Fair Market Value thereof.

27. CONVERSION OF ISOs INTO NON-QUALIFIED OPTIONS; TERMINATION OF ISOs.

The Administrator, at the written request of any Participant, may in its discretion take such actions as may be necessary to convert such Participant's ISOs (or any portions thereof) that have not been exercised on the date of conversion into Non-Qualified Options at any time prior to the expiration of such ISOs, regardless of whether the Participant is an employee of the Company or an Affiliate at the time of such conversion. At the time of such conversion, the Administrator (with the consent of the Participant) may impose such conditions on the exercise of the resulting Non-Qualified Options as the Administrator in its discretion may determine, provided that such conditions shall not be inconsistent with this Plan. Nothing in the Plan shall be deemed to give any Participant the right to have such Participant's ISOs converted into Non-Qualified Options, and no such conversion shall occur until and unless the Administrator takes appropriate action. The Administrator, with the consent of the Participant, may also terminate any portion of any ISO that has not been exercised at the time of such conversion.

28. WITHHOLDING.

In the event that any federal, state, or local income taxes, employment taxes, Federal Insurance Contributions Act ("F.I.C.A.") withholdings or other amounts are required by applicable law or governmental regulation to be withheld from the Participant's salary, wages or

other remuneration in connection with the exercise or acceptance of a Stock Right or in connection with a Disqualifying Disposition (as defined in Paragraph 29) or upon the lapsing of any right of repurchase, the Company may withhold from the Participant's compensation, if any, or may require that the Participant advance in cash to the Company, or to any Affiliate of the Company which employs or employed the Participant, the statutory minimum amount of such withholdings unless a different withholding arrangement, including the use of shares of the Company's Common Stock or a promissory note, is authorized by the Administrator (and permitted by law). For purposes hereof, the fair market value of the shares withheld for purposes of payroll withholding shall be determined in the manner provided in Paragraph 1 above, as of the most recent practicable date prior to the date of exercise. If the fair market value of the shares withheld is less than the amount of payroll withholdings required, the Participant may be required to advance the difference in cash to the Company or the Affiliate employer. The Administrator in its discretion may condition the exercise of an Option for less than the then Fair Market Value on the Participant's payment of such additional withholding.

29. NOTICE TO COMPANY OF DISQUALIFYING DISPOSITION.

Each Employee who receives an ISO must agree to notify the Company in writing immediately after the Employee makes a Disqualifying Disposition of any shares acquired pursuant to the exercise of an ISO. A Disqualifying Disposition is defined in Section 424(c) of the Code and includes any disposition (including any sale or gift) of such shares before the later of (a) two years after the date the Employee was granted the ISO, or (b) one year after the date the Employee acquired Shares by exercising the ISO, except as otherwise provided in Section 424(c) of the Code. If the Employee has died before such stock is sold, these holding period requirements do not apply and no Disqualifying Disposition can occur thereafter.

30. TERMINATION OF THE PLAN.

The Plan will terminate on July 20, 2016, the date which is ten years from the earlier of the date of its adoption by the Board of Directors and the date of its approval by the shareholders of the Company. The Plan may be terminated at an earlier date by vote of the shareholders or the Board of Directors of the Company; provided, however, that any such earlier termination shall not affect any Agreements executed prior to the effective date of such termination.

31. AMENDMENT OF THE PLAN AND AGREEMENTS.

The Plan may be amended by the shareholders of the Company. The Plan may also be amended by the Administrator, including, without limitation, to the extent necessary to qualify any or all outstanding Stock Rights granted under the Plan or Stock Rights to be granted under the Plan for favorable federal income tax treatment (including deferral of taxation upon exercise) as may be afforded incentive stock options under Section 422 of the Code, and to the extent necessary to qualify the shares issuable upon exercise or acceptance of any outstanding Stock Rights granted, or Stock Rights to be granted, under the Plan for listing on any national securities exchange or quotation in any national automated quotation system of securities dealers. Any amendment approved by the Administrator which the Administrator determines is of a scope that requires shareholder approval shall be subject to obtaining such shareholder approval. Any modification or amendment of the Plan shall not, without the consent of a Participant, adversely

affect his or her rights under a Stock Right previously granted to him or her. With the consent of the Participant affected, the Administrator may amend outstanding Agreements in a manner which may be adverse to the Participant but which is not inconsistent with the Plan. In the discretion of the Administrator, outstanding Agreements may be amended by the Administrator in a manner which is not adverse to the Participant.

32. EMPLOYMENT OR OTHER RELATIONSHIP.

Nothing in this Plan or any Agreement shall be deemed to prevent the Company or an Affiliate from terminating the employment, consultancy or director status of a Participant, nor to prevent a Participant from terminating his or her own employment, consultancy or director status or to give any Participant a right to be retained in employment or other service by the Company or any Affiliate for any period of time.

33. GOVERNING LAW.

This Plan shall be construed and enforced in accordance with the law of the State of Delaware.

Approved by the Board: March 22, 2013

Approved by the Shareholders: March 21, 2013





March 14, 2008

John McDonough  
41 Hopestill Brown Road  
Sudbury, MA 01776

Re: Employment Agreement

Dear John:

This letter is to confirm our understanding with respect to (i) your employment by T2 Biosystems, Inc., (the "Company") and (ii) your agreement not to compete with: (A) the Company, or (B) any present or future parent or subsidiary of the Company or wholly-owned affiliate thereof over which you have control, of which you have knowledge of Confidential Information (defined below), or through which you have developed goodwill (each a "Company Affiliate" and collectively, together with the Company, the "Company Group"), (the terms and conditions agreed to in this letter are hereinafter referred to as the "Agreement"). In consideration of the mutual promises and covenants contained in this Agreement, and for other good and valuable consideration, the receipt and sufficiency of which are hereby mutually acknowledged, we have agreed as follows:

1. Employment.

(a) Subject to the terms and conditions of this Agreement, the Company will employ you, and you will be employed by the Company, as Chief Executive Officer reporting only to the Board of Directors (the "Board"). You will have the responsibilities, duty and authority commensurate with the position of Chief Executive Officer. You will also perform such other services of an executive nature for the Company as may be reasonably assigned to you from time to time by the Board and agreed to by you. The principal location at which you will perform such services will be the Company's facility located at 286 Cardinal Medeiros Avenue, Cambridge, MA, 02141. During the term of your employment hereunder, the Company will ensure that you are nominated, and will use its best efforts to cause you to be elected, to serve as a Director of the Company.

(b) Devotion to Duties. For so long as you are employed hereunder, you will devote substantially all of your business time and energies to the business and affairs of the Company, provided that nothing contained in this Section 1(b) will be deemed to prevent or limit your right to manage your personal investments on your own personal time, including, without limitation, the right to make passive investments in the securities of (i) any entity which you do not control, directly or indirectly, and which does not compete with the Company, or (ii) any publicly held entity so long as your aggregate

T2Biosystems, Inc.  
286 Cardinal Medeiros Avenue  
Cambridge, MA 02141  
t: 617 661 8282  
f: 617 876 1608

www.t2biosystems.com

direct and indirect interest does not exceed five percent of the issued and outstanding securities of any class of securities of such publicly held entity.

2. Employment At-Will. Your employment hereunder commenced on November 19, 2007 (the "Commencement Date"). Your employment hereunder is on an "at-will" basis and may be terminated by the Company or by you at any time for any reason or for no reason.

3. Definitions.

(a) Definition of Change of Control. For purposes of this Agreement, a Change of Control means that any of the following events has occurred:

(i) Any person (as such term is used in Section 13(d) of the Securities Exchange Act of 1934 (the "Exchange Act")), other than the Company, any employee benefit plan of the Company or any entity organized, appointed or established by the Company for or pursuant to the terms of any such plan, together with all "affiliates" and "associates" (as such terms are defined in Rule 12b-2 under the Exchange Act) becomes the beneficial owner or owners (as defined in Rule 13d-3 and 13d-5 promulgated under the Exchange Act), directly or indirectly (the "Control Group"), of more than 50% of the outstanding equity securities of the Company, or otherwise becomes entitled, directly or indirectly, to vote more than 50% of the voting power entitled to be cast at elections for directors ("Voting Power") of the Company, provided that a Change of Control will not have occurred if such Control Group acquired securities or Voting Power solely by purchasing securities from the Company, including, without limitation, acquisition of securities by one or more third party investors such as venture capital investor(s);

(ii) A consolidation or merger (in one transaction or a series of related transactions) of the Company pursuant to which the holders of the Company's equity securities immediately prior to such transaction or series of related transactions would not be the holders, directly or indirectly, immediately after such transaction or series of related transactions of more than 50% of the Voting Power of the entity surviving such transaction or series of related transactions;

(iii) The sale, lease, exchange or other transfer (in one transaction or a series of related transactions) of all or substantially all of the assets of the Company; or

(iv) The liquidation or dissolution of the Company or the Company ceasing to do business.

(b) Definition of "Cause". For purposes of this Agreement, "Cause" means:

(i) Your conviction of a felony, either in connection with the performance of your obligations to the Company or which otherwise materially and adversely affects your ability to perform such obligations

(ii) Your willful disloyalty to the Company or deliberate material dishonesty to the Company;

(iii) The commission by you of an act of fraud or embezzlement against the Company;

(iv) Your willful, substantial failure to perform any of your duties hereunder or your deliberate failure to follow reasonable, lawful directions of the Board, either of which failure, if capable of being cured, is not cured within 30 days after delivery to you by the Company of written notice of such failure, provided that if such failure is not capable of being cured within such 30 day period, you will have one additional 30 day period to cure such failure, but only if you promptly commence and continue in good faith efforts to cure such failure; or

(v) A material breach by you of any material provision of this Agreement which breach is not cured within 30 days after delivery to you by the Company of written notice of such breach, provided that if such breach is not capable of being cured within such 30 day period, you will have a reasonable additional period to cure such breach but only if you promptly commence and continue good faith efforts to cure such breach.



Any determination under this Section 3(b) will be made by two thirds of the Board voting on such determination. With respect to any such determination, the Board will act fairly and in utmost good faith and will give you written notice within 30 days of such alleged "Cause" and give you and your counsel an opportunity to appear and be heard at a meeting of the Board and present evidence on your behalf. No act or omission on your part will be considered "willful" or "deliberate" unless done, or admitted to be done, by you in bad faith or without your reasonable belief that such act or omission was in the best interest of the Company.

- (c) Definition of "Good Reason". For purposes of this Agreement, a "Good Reason" means one or more of the following:
- (i) A material change in the principal location at which you provide services to the Company, without your prior written consent;
  - (ii) A material and continuing diminution by the Company in the duties, authority or responsibilities of your position which causes such position to become of less responsibility or authority than immediately prior to such material and continuing diminution, provided that such change is not in connection with a termination of your employment hereunder by the Company;
  - (iii) A change in the lines of reporting such that you no longer report to Board of Directors;

3

- (iv) A material reduction in your base compensation or other benefits except if such a reduction is in connection with a general reduction in compensation or other benefits of all senior executives of the Company;
- (v) A material breach of this Agreement by the Company; or
- (vi) Failure by the Company to obtain the assumption of this Agreement by any successor to the Company.

For purposes of this Section 3(c), "Good Reason" shall only exist if you have given written notice to the Company within ninety (90) days of the initial existence of the Good Reason condition(s), and the Company has failed to cure such event(s) within thirty (30) days of its receipt of said notice.

#### 4. Compensation

(a) Base Salary. While you are employed hereunder, the Company will pay you a base salary at the annual rate of \$300,000 (the "Base Salary"). The Base Salary may be subject to an increase from time to time in the discretion of the Company. The Base Salary will be payable in substantially equal installments in accordance with the Company's payroll practices as in effect from time to time. The Company will deduct from each such installment any amounts required to be deducted or withheld under applicable law or under any employee benefit plan in which you participate.

(b) Annual Bonus. You will be eligible to receive an annual performance bonus (the "Annual Bonus") as follows:

(i) For the period beginning on the Commencement Date and including calendar year 2008 (the "Initial Annual Bonus Period"), and provided that you continue to be employed by the Company hereunder at the time of payment, and upon the achievement of specific milestones as agreed to by you and the Board of Directors, you will be eligible to receive an Annual Bonus of up to \$75,000, based on your performance and the overall performance of the Company, measured against goals that are mutually agreed upon by you and the Compensation Committee no later than March 1, 2008. You shall submit proposed performance goals for the Initial Annual Bonus Period no later than January 31, 2008, which will be reviewed and approved by the Compensation Committee of the Board in their sole discretion. The Annual Bonus for the Initial Annual Bonus Period shall be paid to you within 30 days following the one-year anniversary of the Commencement Date.

(ii) Beginning in calendar year 2009, you will be eligible to receive an Annual Bonus after the conclusion of each calendar year you are employed by the Company, in an amount which shall be determined by the Compensation Committee of the Board (or its designee), and provided that you continue to be employed by the Company hereunder at the time of payment, and upon the achievement of specific milestones as agreed to by you and the Board of Directors. The Annual Bonus shall be primarily based on your performance and

4

the overall performance of the Company, measured against goals that are mutually agreed upon by you and the Compensation Committee. You shall submit proposed performance goals no later than January 31 of the year to which the goals relate, which will be reviewed and approved by the Compensation Committee of the Board in their sole discretion, no later than March 1 of the year to which the goals relate. The Annual Bonus, other than as provided for in Section 4(b)(i), will be paid to you within 60 days following the close of the year to which it relates. In no event shall the Annual Bonus opportunity be less than \$75,000.

(c) Equity Compensation

(i) Restricted Share Grant. Subject to approval of the Board and approval of an increase in the number of shares of the Company's common stock (the "Common Stock") under the Company's 2006 Employee, Director and Consultant Stock Plan (the "Plan"), the Company will grant you restricted shares (the "Restricted Shares") in an amount equal to 289,098 shares, at a per share purchase price equal to the fair market value of a share of Common Stock on the date of grant, pursuant to a written restricted stock agreement between the Company and you in the form attached hereto as Exhibit 4(c)(i) (the "Restricted Stock Agreement").

(ii) Additional Equity Grant to Maintain Percentage Ownership. Promptly following the closing of the first issuance and sale of the Company's preferred equity securities after the Commencement Date with gross proceeds to the Company of not less than \$5,000,000 (the "First Financing"), you will be granted additional equity awards pursuant to the Plan in an amount that will maintain your aggregate percentage ownership of the Company's equity securities of at least 5% on a fully diluted basis (the "Additional Option"). The Additional Option will be in the form of either restricted shares of Common Stock or options to purchase Common Stock, as elected by you. The per share exercise price or purchase price for the Additional Option will be the fair market value per share of the Common Stock on the date the Additional Option is granted. The Additional Option (i) will be an incentive stock option to the extent it is an option and permissible under applicable law, (ii) will otherwise be on terms and conditions substantially similar to the Restricted Shares, and (iii) will be evidenced by an agreement substantially similar to the Restricted Stock Agreement or the Company's then standard form of stock option agreement. In addition to the Additional Option, you will have the right to purchase securities issued in connection with the First Financing on the same terms, conditions and price as other investors, so that your total restricted shares, stock options and any other securities of the Company equal at least 6.5% of the total number of the fully-diluted shares of the Company's Common Stock as of the closing of the First Financing.

(iii) Vesting. Restricted Shares will vest as follows: (a) 25% of the Restricted Shares will vest on the one-year anniversary of the Commencement

5

Date; and (b) the remaining 75% of the Restricted Shares will vest in equal monthly installments over the 36 months following the one-year anniversary of the Commencement Date. The Additional Option will vest as follows: (a) 25% of the Additional Option will vest on the one-year anniversary of the grant date of the Additional Option; and (b) the remaining 75% of the Additional Option will vest in equal monthly installments over the 36 months following the one-year anniversary of the grant date of the Additional Option. Upon the termination of your employment hereunder for any reason, the Company will have the option, but not the obligation, to repurchase from you at a price per share equal to the applicable purchase price or exercise price, all or any of the unvested Restricted Shares or Additional Options, in accordance with the terms of the applicable restricted stock or option agreement.

(iv) Effect of Change of Control. In the event of a (a) Change of Control (as defined in Section 3(a)) of the Company while you continue to be employed by the Company and (b) your employment with the Company is terminated by the Company without Cause (as defined in Section 3(b)), or by you for a Good Reason (as defined in

Section 3(c) within twelve (12) months after the date of the Change of Control, your unvested Restricted Shares and Additional Options will become fully vested and, if applicable, exercisable and, the Company's lapsing repurchase right, if any, will terminate with respect to those shares of Common Stock.

(d) Vacation. You will be entitled to paid vacation of not less than four (4) weeks in each calendar year and paid holidays and personal days in accordance with the Company's policies for its senior executives as in effect from time to time.

(e) Fringe Benefits. You will be entitled to participate in the same manner as other senior executives of the Company in any employee benefit plans which the Company provides or may establish for the benefit of its senior executives generally (including, without limitation, group life, disability, medical, dental and other insurance, tax benefit and planning services, 401(k), retirement, pension, profit-sharing and similar plans) (collectively, the "Fringe Benefits"), provided that the Fringe Benefits will not include any stock option or similar plans relating to the grant of equity securities of the Company.

(f) Reimbursement of Expenses. The Company will reimburse you for all ordinary and reasonable out-of-pocket business expenses that are incurred by you in furtherance of the Company's business in accordance with the Company's policies with respect thereto as in effect from time to time. All reimbursements shall be made promptly, and in any event, no later than the end of the calendar year following the calendar year in which such expense is incurred.

(g) Indemnification. The Company will defend and indemnify you, to the extent permitted by its charter and by-laws and by applicable law, against all liabilities, fines, penalties, costs, charges and expenses, including, without limitation, reasonable attorneys' fees, incurred or sustained by you in connection with any action, suit or proceeding to which

6

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you may be made a party by reason of being an officer, director or employee of the Company. In connection with the foregoing, you will be covered under any liability insurance policy that protects other employees, directors or officers of the Company.

## 5. Prohibited Competition

### (a) Certain Acknowledgements and Agreements

(i) We have discussed, and you recognize and acknowledge the competitive and proprietary aspects of the business of the Company Group as currently conducted or as contemplated to be conducted.

(ii) You acknowledge that a business will be deemed competitive with the Company Group if it performs any of the services or manufactures or sells any of the products provided, offered, produced, manufactured, distributed, sold, or under development by the Company Group during your employment hereunder.

(iii) You agree and understand that nothing in this Agreement shall confer any right with respect to continuation of service by the Company, nor shall it interfere in any way with your status as an at will employee or the Company's right to terminate its relationship with you at any time, with or without cause.

(iv) You further acknowledge that, during the course of your performing services for the Company Group, the Company Group will furnish, disclose or make available to you Confidential Information (as defined below) related to the Company Group's business and that the Company Group may provide you with unique and specialized training. You also acknowledge that such Confidential Information and such training have been developed and will be developed by the Company Group through the expenditure by the Company Group of substantial time, effort and money and that all such Confidential Information and training could be used by you to compete with the Company Group. Further, in the course of your provision of services to the Company Group, you will be introduced to customers and others with important relationships to the Company Group. You acknowledge that any and all "goodwill" created through such introductions belongs exclusively to the Company Group, including, without limitation, any goodwill created as a result of direct or indirect contacts or relationships between you and any customers of the Company Group.

(v) For purposes of this Agreement, "Confidential Information" means any technical or business information furnished by the Company to the Recipient in connection with the proposed business relationship that is not in the public forum or available to the public, regardless of whether such information is specifically designated as confidential and regardless of whether such information is in written, oral, electronic, or other form. Such Confidential Information may include, without limitation, trade secrets, know-how, inventions, technical data or specifications, testing methods, business or financial information, research and

7

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development activities, product and marketing plans, and customer and supplier information. The availability of technology for acquisition or outlicensing from various institutions with which the Company Group contemplates initiating discussions shall be deemed Confidential Information. The term "trade secrets," as used in this Agreement, will be given its broadest possible interpretation under the law of the Commonwealth of Massachusetts and will include, without limitation, anything tangible or intangible or electronically kept or stored, which constitutes, represents, evidences or records or any secret scientific, technical, merchandising, production or management information, or any design, process, procedure, formula, invention, improvement or other confidential or proprietary information or documents.

(b) Non-Competition; Non-Solicitation. During the period in which you perform services for or at the request of the Company as an employee or independent contractor and for a period of one (1) year following the termination of your provision of services to the Company as an employee or independent contractor for any reason or for no reason you will not, without the prior written consent of the Company Group:

(i) For yourself or on behalf of any other person or entity, directly or indirectly, either as principal, partner, stockholder, officer, director, member, employee, consultant, agent, representative or in any other capacity, own, manage, operate or control, or be concerned, connected or employed by, or otherwise associate in any manner with, engage in, or have a financial interest in, any business which is directly competitive with the business of the Company Group (each, a "Restricted Activity"), except that (A) nothing contained herein will preclude you from purchasing or owning securities of any such business if such securities are publicly traded, and provided that your holdings do not exceed five percent of the issued and outstanding securities of any class of securities of such business, and (B) nothing contained herein will prevent you from engaging in a Restricted Activity for or with respect to any subsidiary, division or affiliate or unit (each, a "Unit") of an entity if that Unit is not engaged in any business which is competitive with the business of the Company Group, irrespective of whether some other Unit of such entity engages in such competition (as long as you do not engage in a Restricted Activity for such other Unit); or

(ii) Either individually or on behalf of or through any third party, directly or indirectly, solicit, divert or appropriate or attempt to solicit, divert or appropriate, for the purpose of competing with the Company Group, any customers or patrons of the Company Group, or any prospective customers or patrons with respect to which the Company Group has developed or made a sales presentation (or similar offering of services); or

(iii) Either individually or on behalf of or through any third party, directly or indirectly, (A) solicit, entice or persuade or attempt to solicit, entice or persuade any other employees of or consultants to the Company Group to leave the services of the Company Group for any reason, or (B) employ, cause to be

8

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employed, or solicit the employment of any employee of or consultant to the Company Group while any such person is providing services to the Company Group or within six months after any such person ceases providing services to the Company Group; or

(iv) Either individually or on behalf of or through any third party, directly or indirectly, interfere with or attempt to interfere with, the relations between the Company Group and any vendor or supplier to the Company Group.

(c) Reasonableness of Restrictions. You further recognize and acknowledge that (i) the types of activities which are prohibited by this Section 5 are narrow and reasonable in relation to the skills which represent your principal salable asset both to the Company Group and to your other prospective employers, (ii) the restrictions are for a reasonable time

period, and (iii) the scope of the provisions of this Section 5 is reasonable, legitimate and fair to you in light of the Company Group's need to market its services and sell its products in a large geographic area in order to have a sufficient customer base to make the Company Group's business profitable and in light of the limited restrictions on the type of activities prohibited herein compared to the types of employment for which you are qualified to earn your livelihood.

(d) Survival of Acknowledgements and Agreements. Your acknowledgements and agreements set forth in this Section 5 will survive the termination of your provision of services to the Company for any reason or for no reason.

#### 6. Severance Compensation.

(a) Definition of Accrued Obligations. For purposes of this Agreement, "Accrued Obligations" means (i) the portion of your Base Salary as has accrued prior to any termination of your employment with the Company and has not yet been paid, (ii) an amount equal to the value of your accrued unused vacation days, and (iii) the amount of any expenses properly incurred by you on behalf of the Company prior to any such termination and not yet reimbursed.

(b) Termination by the Company without Cause or by you with Good Reason in Connection with a Change of Control. If your employment hereunder is terminated either by you with Good Reason, within twelve (12) months following a Change of Control, or by the Company without Cause within three (3) months preceding or within twelve (12) months following a Change of Control:

(i) The Company will pay the Accrued Obligations to you promptly (*i.e.*, within fifteen (15) days) following such termination.

(ii) The Company will pay you severance in an amount equal to twelve (12) months of your then current Base Salary, payable in equal installments over a period of twelve (12) months in accordance with the Company's payroll practice, commencing on your termination of employment.

9

(iii) The Company will pay you fifty percent (50%) of the maximum amount of the Annual Bonus which could have been earned if such termination had not occurred, payable in a single lump sum payment on March 15 of the year following the year in which your termination of employment occurred.

(c) Termination by the Company without Cause. If your employment hereunder is terminated by the Company without Cause:

(i) The Company will pay the Accrued Obligations to you promptly (*i.e.*, within fifteen (15) days) following such termination.

(ii) The Company will pay you severance in an amount equal to six (6) months of your then current Base Salary, payable in equal installments over a period of six (6) months in accordance with the Company's payroll practice, commencing on your termination of employment.

(iii) The Company will pay you fifty percent (50%) of the maximum amount of the Annual Bonus which could have been earned if such termination had not occurred, payable in a single lump sum payment on March 15 of the year following the year in which your termination of employment occurred.

(d) Termination by the Company with Cause. If your employment hereunder is terminated by the Company with Cause, the Company will pay you the Accrued Obligations promptly following such termination.

(e) No Duty to Mitigate. Notwithstanding any other provision of this Agreement, (i) you will have no obligation to mitigate your damages for any breach of this Agreement by the Company or for any termination of this Agreement, whether by seeking employment or otherwise and (ii) the amount of any benefit due to you after the date of such termination pursuant to this Agreement will not be reduced or offset by any payment or benefit that you may receive from any other source.

(f) If at the time a payment is to be made under this Agreement, it is determined that you are a "specified employee" of the Company (within the meaning of Code Section 409A, as amended, and any successor statute, regulation and guidance thereto) and further determined that such payment does not fall within an exclusion or exemption to Section 409A, then limited only to the extent necessary to comply with the requirements of Code Section 409A, any payments to which you may become entitled under this Section 6 which are subject to Code Section 409A (and not otherwise exempt from its application) will be withheld until the first (1<sup>st</sup>) business day of the seventh (7<sup>th</sup>) month following the termination of employment, at which time you shall be paid an aggregate amount equal to the accumulated, but unpaid, payments otherwise due to you under the terms of this Section 6.

7. Records. Upon termination of your employment hereunder for any reason or for no reason, you will deliver to the Company any property of the Company which may be in your possession, including products, materials, memoranda, notes, records, reports or other documents or photocopies of the same.

10

8. Insurance. The Company, in its sole discretion, may apply for and purchase key person life insurance on your life in an amount determined by the Company with the Company as beneficiary. You will submit to any medical or other examinations and to execute and deliver any applications or other instruments in writing that are reasonably necessary to effectuate such insurance.

#### 9. General.

(a) Notices. All notices, requests, consents and other communications hereunder will be in writing, will be addressed to the receiving party's address set forth above or to such other address as a party may designate by notice hereunder, and will be either (i) delivered by hand, (ii) sent by overnight courier, or (iii) sent by registered or certified mail, return receipt requested, postage prepaid. All notices, requests, consents and other communications hereunder will be deemed to have been given either (i) if by hand, at the time of the delivery thereof to the receiving party at the address of such party set forth above, (ii) if sent by overnight courier, on the next business day following the day such notice is delivered to the courier service, or (iii) if sent by registered or certified mail, on the fifth business day following the day such mailing is made.

(b) Entire Agreement. This Agreement, together with the Proprietary Information, Invention Assignment Agreement, the Restricted Stock Agreement and the other agreements specifically referred to herein, embodies the entire agreement and understanding between the parties hereto with respect to the subject matter hereof and supersedes all prior oral or written agreements and understandings relating to the subject matter hereof. No statement, representation, warranty, covenant or agreement of any kind not expressly set forth in this Agreement will affect, or be used to interpret, change or restrict, the express terms and provisions of this Agreement.

(c) Modifications and Amendments. The terms and provisions of this Agreement may be modified or amended only by written agreement executed by the parties hereto. Any such amendment shall comply with the requirements of Code Section 409A, if applicable.

The parties hereto intend that this Agreement comply with the requirements of Section 409A of the Code and related regulations and Treasury pronouncements. If any provision provided herein would result in the imposition of an additional tax under the provisions of Section 409A, you and the Company agree that any such provision will be reformed, if possible of reformation, to avoid imposition of any such additional tax in the manner that the you and the Company mutually agree is appropriate to comply with Section 409A, provided that no such amendment will cause increased liability for the Company

(d) Waivers and Consents. The terms and provisions of this Agreement may be waived, or consent for the departure therefrom granted, only by written document executed by the party entitled to the benefits of such terms or provisions. No such waiver or consent will be deemed to be or will constitute a waiver or consent with respect to any other terms or provisions of this Agreement, whether or not similar. Each such waiver or

11

consent will be effective only in the specific instance and for the purpose for which it was given, and will not constitute a continuing waiver or consent.

(e) Assignment. The Company may assign its rights and obligations hereunder to any person or entity that succeeds to all or substantially all of the Company's business or that aspect of the Company's business in which you are principally involved. You may not assign your rights and obligations under this Agreement without the prior written consent of the Company.

(f) Benefit. All statements, representations, warranties, covenants and agreements in this Agreement will be binding on the parties hereto and will inure to the benefit of the respective successors and permitted assigns of each party hereto. Nothing in this Agreement will be construed to create any rights or obligations except among the parties hereto, and no person or entity will be regarded as a third-party beneficiary of this Agreement.

(g) Governing Law. This Agreement and the rights and obligations of the parties hereunder will be construed in accordance with and governed by the law of the Commonwealth of Massachusetts, without giving effect to the conflict of law principles thereof.

(h) Jurisdiction, Venue and Service of Process. Any legal action or proceeding with respect to this Agreement that is not subject to arbitration pursuant to Section 9(i) below will be brought in the courts of the Commonwealth of Massachusetts or of the United States of America for the District of Massachusetts. By execution and delivery of this Agreement, each of the parties hereto accepts for itself and in respect of its property, generally and unconditionally, the exclusive jurisdiction of the aforesaid courts.

(i) Arbitration. Any controversy, dispute or claim arising out of or in connection with this Agreement, other than a controversy, dispute or claim arising under Section 5 hereof, will be settled by final and binding arbitration to be conducted in the Commonwealth of Massachusetts pursuant to the national rules for the resolution of employment disputes of the American Arbitration Association then in effect. The decision or award in any such arbitration will be final and binding upon the parties and judgment upon such decision or award may be entered in any court of competent jurisdiction or application may be made to any such court for judicial acceptance of such decision or award and an order of enforcement. In the event that any procedural matter is not covered by the aforesaid rules, the procedural law of the Commonwealth of Massachusetts will govern. If you prevail in any such arbitration, the Company shall pay you fifty percent (50%) of your reasonable attorneys' fees and costs incurred by you in said arbitration.

(j) Severability. The parties intend this Agreement to be enforced as written. However, (i) if any portion or provision of this Agreement is to any extent be declared illegal or unenforceable by a duly authorized court having 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

12

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not be affected thereby, and each portion and provision of this Agreement will be valid and enforceable to the fullest extent permitted by law and (ii) if any provision, or part thereof, is held to be unenforceable because of the duration of such provision, the geographic area covered thereby, or other aspect of the scope of such provision, the court making such determination will have the power to reduce the duration, geographic area of such provision, or other aspect of the scope of such provision, and/or to delete specific words and phrases ("blue-penciling"), and in its reduced or blue-penciled form, such provision will then be enforceable and will be enforced.

(k) Headings and Captions. The headings and captions of the various subdivisions of this Agreement are for convenience of reference only and will in no way modify or affect the meaning or construction of any of the terms or provisions hereof

(l) No Waiver of Rights, Powers and Remedies. No failure or delay by a party hereto in exercising any right, power or remedy under this Agreement, and no course of dealing between the parties hereto, will operate as a waiver of any such right, power or remedy of the party. No single or partial exercise of any right, power or remedy under this Agreement by a party hereto, nor any abandonment or discontinuance of steps to enforce any such right, power or remedy, will preclude such party from any other or further exercise thereof or the exercise of any other right, power or remedy hereunder. The election of any remedy by a party hereto will not constitute a waiver of the right of such party to pursue other available remedies. No notice to or demand on a party not expressly required under this Agreement will entitle the party receiving such notice or demand to any other or further notice or demand in similar or other circumstances or constitute a waiver of the rights of the party giving such notice or demand to any other or further action in any circumstances without such notice or demand.

(m) Counterparts. This Agreement may be executed in two or more counterparts, and by different parties hereto on separate counterparts, each of which will be deemed an original, but all of which together will constitute one and the same instrument.

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13

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If the foregoing accurately sets forth our agreement, please so indicate by signing and returning to us the enclosed copy of this letter.

Very truly yours,

**T2 Biosystems, Inc.**

By: /s/ Noubar Afeyan

Name: Noubar Afeyan

Title:

Accepted and Approved:

/s/ John McDonough

John McDonough

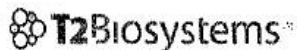
John McDonough

Printed Name

3-17-2008

Date

14



March 8, 2013

Marc Jones  
14 Sutherland Drive  
Hudson, NH 03051

Dear Marc:

On behalf of everyone at T2 Biosystems, I am very pleased to present to you this offer to join our team in the position of Vice President and Chief Financial Officer. In this important role, you will be reporting to me and will have responsibility for the finance and administration functions of the company along with playing a key leadership role externally and within the Company. Your full-time start date will be no later than April 1, 2013.

The attached page includes the pertinent information related to your offer. Please read it carefully and, if it is acceptable, sign and return one copy to me. If you have any questions, please contact me by phone at 781-457-1220, cell phone at 508 314-4859 or email at [jmcdonough@t2biosystems.com](mailto:jmcdonough@t2biosystems.com).

Our mission is to improve lives throughout the world through the development of innovative medical diagnostic products based on our novel diagnostic detection method. You will play a critical role in helping us to fulfill this mission and I hope to have the opportunity to work with you.

Marc, we are all excited to extend this offer to you and hope that you decide to accept it. I am confident that you will make significant contributions to our growth and future success.

Sincerely,

/s/ John McDonough

John McDonough  
Chief Executive Officer & President

Enclosures

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OFFER OF EMPLOYMENT

NAME: Marc Jones

The following information constitutes our offer to you of the position of Vice President and Chief Financial Officer with T2 Biosystems, Inc. (the "Company").

Your starting base salary for this position is \$9,791 which is paid on a semi-monthly basis. This is equivalent to an annualized base salary of \$235,000.

T2 Biosystems, Inc. offers a range of fringe benefit plans, including time off, a 401(k) plan, and medical, dental, life, and disability insurances, for which you may be eligible. Some of these plans require that you share in the cost; some are paid for by the Company. Additional information will be made available to you once you begin your employment. These benefit plans may be subject to change, and the Company will do its best to provide advance notice.

As a full-time employee, and subject to the approval of the Board of Directors, you may be granted an option to purchase common stock of up to 1% of the outstanding shares of the Company (following the completion of the Series E financing) at the fair market value established at the time of the option grant and according to the terms of the Employee Stock Option Agreement. The shares will vest over a 4-year period.

In the event of a Change of Control within 12 months of your employment, where you are no longer employed by the Company following the Change of Control, 50% of your unvested stock options shall immediately vest and you shall receive 6 months of base salary. In the event of a Change of Control after 12 months of your employment, where you are no longer employed by the Company following the Change of Control, 100% of your unvested stock options shall immediately vest and you shall receive 6 months of base salary.

You will also be eligible for an annual bonus of up to 15% of your annualized base salary based on corporate and personal objectives to be determined. The bonus will be earned and paid at the sole discretion of the Company.

The Company operates according to a set of policies, procedures, and practices, which will be discussed with you. These policies, etc., may be subject to change, at the Company's discretion.

According to the laws of the Commonwealth of Massachusetts, your employment is "at will," which means that either you or the Company may terminate your employment for any or no reason, with or without notice, at any time. This offer does not constitute either an express or implied contract of employment.

We are required by the Department of Homeland Security to verify that all the Company's employees are eligible to work in the United States. To fulfill this requirement, you must complete and sign an I-9 form and present certain documents that will verify the information you provided. This must be done in person within the first three days of employment, so please be prepared by bringing those documents with you on your first day. The list of acceptable documents is enclosed.

As a condition of employment, you must sign a copy of the Company's *Non-Compete, Non-Disclosure, Invention Disclosure Agreement*.

This offer will expire on Monday, March 11, 2013. Should you accept the offer, please indicate so by signing and returning one copy of this page in the enclosed envelope so that it arrives no later than the expiration date.

/s/ John McDonough  
(Chief Executive Officer)

3/8/2013  
(DATE)

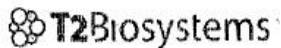
I accept the offer of employment as described herein.

/s/ Marc Jones  
(EMPLOYEE'S NAME)

3/15/2013  
(DATE)

In the event that your employment ends pursuant to paragraph 5 herein, (and in addition to certain vesting acceleration and severance payments as set forth in paragraph 5) you shall also receive and 6 months of COBRA continuation paid for by the Company.

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July 19, 2013

Sarah Kalil  
7 Fairway Drive  
Stow, MA 01775

Dear Sarah:

On behalf of everyone at T2 Biosystems, I am very pleased to present to you this offer to join our team in the position of Chief Operating Officer. Your full-time start date will be August 12, 2013 and your first day in the office shall be August 20, 2013.

The attached page includes the pertinent information related to your offer. Please read it carefully and, if it is acceptable, sign and return one copy to me. If you have any questions, please contact me by phone at 781-457-1220, cell phone at 508 314-4859 or email at [jmcdonough@t2biosystems.com](mailto:jmcdonough@t2biosystems.com).

Our mission is to improve lives throughout the world through the development of breakthrough medical diagnostic products based on our novel T2MR diagnostic detection method. You will play a pivotal leadership role in helping us to fulfill this mission and I hope to have the opportunity to work with you.

Sarah, I am thrilled to extend this offer to you and hope that you decide to accept it. I am confident that you will make significant contributions to our growth and future success.

Sincerely,

/s/ John McDonough

John McDonough  
Chief Executive Officer & President

Enclosures

OFFER OF EMPLOYMENT

NAME: Sarah Kalil

The following information constitutes our offer to you of the position of Chief Operating Officer with T2 Biosystems, Inc. (the "Company").

Your starting base salary for this position is \$9,583 which is paid on a semi-monthly basis. This is equivalent to an annualized base salary of \$230,000.

T2 Biosystems, Inc. offers a range of fringe benefit plans, including time off, a 401(k) plan, and medical, dental, life, and disability insurances, for which you may be eligible. Some of these plans require that you share in the cost; some are paid for by the Company. Additional information will be made available to you once you begin your employment. These benefit plans may be subject to change, and the Company will do its best to provide advance notice.

Subject to the approval of the Board of Directors, you may be granted an option to purchase common stock of up to 1.0% of the outstanding shares of the Company at the fair market value established at the time of the option grant and according to the terms of the Employee Stock Option Agreement. The shares will vest over a 4-year period.

In the event of a Change of Control within 12 months of your employment start date, where you are no longer employed by the Company following the Change of Control, 50% of your unvested stock options shall immediately vest. In the event of a Change of Control after 12 months of your employment start date, where you are no longer employed by the Company following the Change of Control, 100% of your unvested stock options shall immediately vest.

You will also be eligible for an annual bonus of up to 15% of your base salary based on corporate and personal objectives to be determined. The bonus will be earned and paid at the sole discretion of the Company.

The Company operates according to a set of policies, procedures, and practices, which will be discussed with you. These policies, etc., may be subject to change, at the Company's discretion.

According to the laws of the Commonwealth of Massachusetts, your employment is "at will," which means that either you or the Company may terminate your employment for any or no reason, with or without notice, at any time. This offer does not constitute either an express or implied contract of employment.

We are required by the Department of Homeland Security to verify that all the Company's employees are eligible to work in the United States. To fulfill this requirement, you must complete and sign an I-9 form and present certain documents that will verify the information you provided. This must be done in person within the first three days of employment, so please be prepared by bringing those documents with you on your first day. The list of acceptable documents is enclosed.

As a condition of employment, you must sign a copy of the Company's *Non-Compete, Non-Disclosure, Invention Disclosure Agreement*.

This offer will expire on Monday, July 22, 2013. Should you accept the offer, please indicate so by signing and returning one copy of this page in the enclosed envelope so that it arrives no later than the expiration date.

/s/ [ILLEGIBLE]  
(Chief Executive Officer)

7/19/2013  
(DATE)

I accept the offer of employment as described herein.

/s/ Sarah O.Kalil  
Sarah Kalil

7/19/13  
(DATE)

## OFFER OF EMPLOYMENT

**Date of employment:** Should you accept the terms of this offer, your employment with the Company will commence on March 31, 2014 or at such earlier or later date as mutually agreed to between you and the Company.

**Background check:** Your employment is contingent upon your successful completion of a background check, which is required for all employees of the Company. The Company will forward you the appropriate documents, and such documents shall be required to be submitted to the Company by no later than one week prior to your start date.

**Position:** You have been offered the position of Chief Medical Officer. In this capacity, you will initially report to John McDonough, CEO and President. Your duties and responsibilities will include all those customarily attendant to such a position, and any other such duties or responsibilities that John McDonough or the Company may, from time to time, assign to you. You agree that you shall not enter into any employment endeavors which may conflict with your ability to devote the necessary time and energies to the Company's business interest while engaged by the Company. You further agree to comply with all applicable laws and with all Company rules and policies established by the Company from time to time.

**Compensation and Tax Matters:** Your salary shall be \$8,333.33 (the equivalent of \$200,000 when annualized), payable semi-monthly and subject to pro-ration for any partial initial or terminal week during which you are employed, in accordance with normal payroll practices and schedule of the Company. In addition, you will be eligible for an annual performance bonus of up to 15% of your salary based on company performance and your achievement of performance objectives the Company has set for you.

All compensation amounts stated are before any deductions for FICA taxes, state and federal withholding taxes and other payroll deductions required to be made by the Company under applicable law.

**Stock Options:** Subject to the approval of the Board of Directors and your execution of the Company's Stock Option Agreement, you will be offered 90,000 shares of T2 Biosystems common stock options under the Company's Amended and Restated 2006 Stock Plan. The exercise price of the options will be equal to their fair market value on the date of grant as determined by the Board of Directors. The stock options will have a 4-year vesting schedule with 25% of the options vesting one year from the vesting commencement date (your start date) and remaining options vesting in equal monthly installments for the following 36 months. The terms and conditions of such stock option grant will be more fully described Company's Amended and Restated Stock Plan.

In the event of a Change of Control within 12 months of your employment start date, where you are no longer employed by the Company following the Change of Control, 50% of your unvested stock options shall immediately vest. In the event of a Change of Control after 12 months of your employment start date, where you are no longer employed by the Company following the Change of Control, 100% of your unvested stock options shall immediately vest.

**Fringe Benefits:** You will have the opportunity to participate in the Company's fringe benefits program. Currently, these fringe benefits are as follows:

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- The Company currently provides contributions toward a medical and dental plan for yourself and immediate family members
  - Three (3) weeks paid vacation, Company designated holidays, personal holidays and sick days (see Benefits Summary for more information).
  - The Company provides 100% contribution towards Term Life Insurance, Accidental Death and Dismemberment Insurance, and Short and Long-Term Disability Insurance;
  - The opportunity to enroll in the Company's 401(k) Investment and Section 125 Plans based on plan eligibility requirements; and

The Company reserves the right to amend, delete or change any of its employment policies and/or benefits at any time in its sole discretion.

**Non Competition/Non-Disclosure/Invention Assignment Agreement:** No later than on the first day of your employment with the Company you will be required to sign the enclosed Non-Competition/Non-Disclosure/Inventions Assignment Agreement ("Obligations Agreement") which includes nondisclosure, inventions ownership, and other provisions that are necessary to protect the Company's confidential information, intellectual property, trade secrets, and customer relationships. As you may be given access to such protectable interests, your employment is contingent upon your signing the Obligations Agreement. The terms of the Obligations Agreement will survive termination, for whatever reason, of the employment relationship.

**Prior Agreements:** You acknowledge and confirm that you have provided/disclosed to the Company all restrictive covenants and agreements, including nondisclosure and confidentiality agreements, to which you are a party. You agree that you shall not disclose to the Company or use while a employee of the Company any confidential or trade secret information obtained by you from other persons or employers and shall not bring any property upon the Company premises which has been misappropriated by others. You also acknowledge that the Company expects you to honor any prior obligations to former employers to which you remain bound.

**Employment At Will:** Your employment with the Company shall be at will. This means that your employment is not guaranteed for any definite period of time, and you or the Company may terminate your employment relationship with or without notice at any time and for any or no reason or cause. The Company is not bound to follow any policy, procedure, or process in connection with employee discipline, employment termination or otherwise.

**Entire Agreement:** This letter (together with the attached Obligations Agreement) sets forth the entire understanding between the Company and yourself with respect to your employment by the Company. All prior discussions, negotiations, correspondence and other understandings between you and the Company are superseded, and there are no representations, warranties or undertakings by the Company or you with respect to your employment by the Company, which are not set forth in this letter.

If you agree with the terms of this offer, please acknowledge your understanding and acceptance of this offer by signing where indicated below and return to me by Wednesday, February 19, 2014.

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T2 Biosystems, Inc.

By: /s/ John McDonough 2/14/2014  
 John McDonough Date  
 CEO & President

I have read agree with and accept the items contained in this letter.

By: /s/ Michael A. Pfaller 2/15/2014  
 Michael A. Pfaller, M.D. Date

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The Immigration Control and Reform Act of 1986 requires that all new employees complete the I-9 form and submit proof of employment eligibility to work in the United States within the first three days of their start date. If accepting employment the Company will provide you the I-9 form and requests that you present appropriate documents when you report to the Company and a representative of the Company will complete the I-9 form with you. Accordingly, you will have three days from your start date to submit proof of your eligibility to work in the United States.

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December 19, 2006

Tom Lowery, Jr.  
2616 Telegraph Avenue, #305  
Berkeley, CA 94704

Dear Tom,

On behalf of T2 Biosystems, I am pleased to offer you the position of Scientist 1 reporting to me initially. Your compensation will include an annual base salary of \$87,000 USD. You will also receive a sign-on bonus of \$5,000 USD and reimbursement of relocation expenses of up to \$2,500.

Following your date of hire you will be recommended to the Board of Directors for a grant of ten thousand (10,000) stock options. Subject to your continued employment, twenty-five percent (25%) of the options will vest on the first anniversary of your start date with T2 Biosystems, 25% of the remaining options will vest each year thereafter.

We are required by the U.S. Immigration and Naturalization Service to verify that all T2 Biosystems employees are eligible to work in the U.S. To fulfill this requirement, you will be asked to complete and sign an I-9 form. Please be prepared to present one or more forms of identification as specified on the I-9 form (e.g., passport or driver's license and social security card) on your first day of employment.

Your employment relationship with T2 Biosystems is on an "at will" basis; that is either you or T2 Biosystems may terminate it at any time, with or without cause.

As a condition of your employment with T2 Biosystems, you will be required to sign a Non-Disclosure, Non-Competition, Non-Solicitation and Assignment of Inventions Agreement, providing for non-solicitation of employees and customers, assignments of inventions and proprietary rights and confidentiality. A copy of this document will be provided to you.

This offer will expire on Friday, December 22, 2006. Please call me if you have any questions about this offer.

Tom, we are delighted to have extended you this offer and are excited about the potential for you to contribute to the T2 Biosystems team.

Sincerely,

/s/ Doug Levinson

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Doug Levinson  
Founding CEO  
T2 Biosystems, Inc.

One Memorial Drive  
Cambridge, MA 02142

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**BIOPLEX SYSTEMS, INC.**  
**343 Otis Street**  
**West Newton, MA 02465**

July 20, 2006

Dr. Michael Cima  
 184 Mystic Valley Parkway  
 Winchester, MA 01890

Dear Dr. Cima:

We are pleased that you have agreed to become a consultant to **Bioplex Systems, Inc.** This Agreement is made as of the date written above (the "Effective Date") between Bioplex Systems, Inc., a Delaware corporation (the "Company") and Dr. Cima, at Massachusetts Institute of Technology (the "Institution"). This letter is to confirm our understanding with respect to (i) your rendering services as a consultant to the Company and (ii) your agreement to protect and preserve information and property which is confidential and proprietary to the Company or other third parties with whom the Company does business (the terms and conditions agreed to in this letter shall hereinafter be referred to as the "Agreement"). In consideration of the mutual promises and covenants contained in this Agreement, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, we have agreed as follows:

1. Services. You agree to render services to the Company as an independent contractor to, and not as an employee of, the Company. You shall provide services to the Company as may be reasonably requested by the Company.

You acknowledge and agree that you will be an independent contractor for all purposes including, but not limited to, payroll and tax purposes, and that you shall not represent yourself to be an employee or officer of the Company unless so designated by a written agreement signed by the Company.

2. Acknowledgments.

(a) The Company acknowledges that you are an employee of the Institution and are subject to the Institution's policies, including policies concerning consulting, conflicts of interest and intellectual property, and that your obligations under the Institution's policies take priority over any obligations you may have to the Company by reason of this Agreement. The Company further acknowledges and agrees that, except as set forth in Section 11, nothing in this Agreement shall affect your obligations to perform research on behalf of the Institution.

(b) You acknowledge and agree that during the course of performing services for the company, the Company will furnish, disclose or make available to you confidential and proprietary information related to the Company's business. You also acknowledge that such confidential information to be provided by the Company has been developed and will be developed by the Company through the expenditure by the Company of substantial time, effort and money and that all such confidential information could be used by you to compete with the Company.

(c) You further recognize and acknowledge the competitive and proprietary nature of the Company's business operations. You acknowledge and agree that a business will be deemed competitive with the Company if it engages in a line of business in which it performs or plans to perform any of the services, or researches, develops, manufactures or sells any products provided or offered by the Company or planned or under development by the Company in the Company's Field of Interest. The term "Company's Field of Interest" means products and strategies relating to the research, manufacture, and sale of in vitro diagnostics (detection) products and services and device sensors for in vivo use that utilize nanoparticle-based nuclear magnetic resonance ("NMR") methods.

3. Confidentiality; Protected Information.

(a) You may disclose to the Company any information that you would normally freely disclose to other members of the scientific community at large, whether by publication, by presentation at seminars, or in informal scientific discussions. However, you shall not disclose to the Company information that is proprietary to the Institution and that is not in the public domain other than through formal technology transfer procedures.

(b) You shall at all times, both during and after any termination of this Agreement by either the Company or you, maintain in confidence and shall not, without the prior written consent of the Company, use, except in the course of performance of your duties for the Company as a consultant hereunder, disclose, or give to others any fact or information which was disclosed to or developed by you during the course of performing services for the Company hereunder, and which is not in the public domain, including but not limited to information and facts concerning business plans, customers, future customers, suppliers, licensors, licensees, Partners, investors, affiliates or other, training methods and materials, financial information, sales prospects, client lists, Inventions (as defined in Section 4), or any other scientific, technical, trade or business secret or product development plan or confidential or proprietary information of the Company or of any third party provided to you in the course of your consultancy to the Company. You also agree not to file patent applications based on the Company's technology or confidential information, nor seek to make improvements thereon, whether in your laboratories at the Institution or elsewhere, without the Company's prior written approval. You agree not to make any copies of such confidential or proprietary information of the Company (except when appropriate for the furtherance of the business of the Company or duly and specifically authorized to do so) and promptly upon request, whether during or after the term of this Agreement, to return to the Company any and all documentary, machine-readable or other elements or evidence of such confidential or proprietary information, and any copies that may be in your possession or under your control. In the event you are questioned by anyone not

2

employed by the Company, in regard to any such information or any other secret or confidential work of the Company, or concerning any fact or circumstance relating thereto, you will promptly notify the President of the Company.

(c) Such confidential or proprietary information subject to Section 3(b) does not include information generated solely by you unless the information (i) is generated as a direct result of the performance of consulting services under this Agreement and (ii) is not generated in the course of your activities as an employee of the Institution.

4. Ownership of Ideas, Copyrights and Patents.

(a) You agree that all ideas, discoveries, creations, materials, compounds, manuscripts and properties, innovations, improvements, know-how, inventions, designs, developments, apparatus, techniques, algorithms, software, mask works, methods, and formulae made, developed or improved by you in the Company's Field of Interest whether or not reduced practice and whether patentable, copyrightable, protectable as mask works or not, which you may conceive, reduce to practice or develop during the Term (as defined in Section 6) and for a period of one (1) year thereafter, alone or in conjunction with another, or others, and whether at the request or upon the suggestion of the Company, or otherwise, which (i) you develop as a direct result of performing consulting services for the Company under this Agreement and (ii) is not generated in the course of your activities as an employee of the Institution and is not owned by the Institution (all of the foregoing being hereinafter referred to as the "Inventions"), shall be the sole and exclusive property of the Company, and that you shall not publish any of the Inventions without the prior written consent of the Company. You hereby assign to the Company all of your right, title and interest in and to all Inventions. You agree to maintain and furnish to the Company complete and current records of all such Inventions and disclose to the Company in writing any such Inventions. Upon termination of your consulting arrangement with the Company, you shall provide to the Company in writing a full, signed statement of all Inventions in which you participated prior to termination of the consulting arrangement. You further represent and agree that to the best of your knowledge and belief none of the Inventions will violate or infringe upon any right, patent, copyright, trademark or right of privacy, or constitute libel or slander against or violate any other rights of any person, firm or corporation, and that you will use your best efforts to prevent any such violation.

(b) At any time during or after the Term, you agree that you will fully cooperate with the Company, its attorneys and agents, in the preparation and filing of all papers and other documents as may be required to perfect and protect the Company's rights in and to any of such Inventions, including, but not limited to, joining in any proceeding to obtain and enforce letters patent, copyrights, mask work registrations, trademarks or other legal rights of the United States and of any and all other countries on such Inventions, provided that the Company will bear the expense of such proceedings, and that any patent, copyright, mask work registration, trademark, or other legal right so issued to you, personally, shall be assigned by you to the Company without charge by you. You hereby designate the Company as your agent for, and grant to the Company a power of attorney with full power of substitution, which power of attorney shall be deemed coupled with an interest, for the purpose of effecting the foregoing assignments from you to the Company.

5. Limitations on Competition. You hereby agree, in consideration of the Company's agreement to engage you as a consultant hereunder and your compensation for services rendered to the Company and in view of the confidential position to be held by you, and the confidential nature and proprietary value of the information which the Company may share with you, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, as follows:

Except as otherwise indicated in this Agreement, you shall not, without the prior written consent of the Company:

(i) For yourself or on behalf of any other, directly or indirectly, either as principal, agent, stockholder, employee, consultant, representative or in any other capacity, own, manage, operate or control, or be concerned, connected or employed by, or otherwise associate in any manner with, engage in or have a financial interest in any business whose primary line of business is in the Company's Field of Interest, or in any other business in which you have any direct operating or scientific responsibility, as a consultant, employee or otherwise, in the Company's Field of Interest anywhere in the world (hereinafter, the "Restricted Territory"), except that nothing contained herein shall preclude you from purchasing stock in any such competitive business if such stock is publicly traded, and provided that your holdings do not exceed three (3%) percent of the issued and outstanding capital stock of such business.

(ii) Either individually or on behalf of or through any third party, solicit, divert or appropriate or attempt to solicit, divert or appropriate, for the purpose of competing in the Company's Field of Interest with the Company or any present or future parent, subsidiary or other affiliate of the Company which is engaged in the Company's Field of Interest, any joint venture or collaborative research partners, customers or patrons of the Company, or any prospective customers or patrons with respect to which the Company has developed or made a presentation for the use or exploitation of products or processes in the Company's Field of Interest (or similar offering of services), located within the Restricted Territory.

(iii) Either individually or on behalf of or through any third party, directly or indirectly, solicit, entice or persuade or attempt to solicit, entice or persuade any other employees or of consultants to the Company or any present or future parent, subsidiary or affiliate of the Company to leave the services of the Company or any such parent, subsidiary or affiliate for any reason.

You further recognize and acknowledge that (i) the types of employment which are prohibited by this paragraph are narrow and reasonable in relation to the skills which represent your principal salable asset both to the Company and to your other prospective employers, and (ii) the specific but broad geographical scope of the provisions of this paragraph is reasonable, legitimate and fair to you in light of the Company's need to perform its research and to develop and market its services and develop and sell its products in a large geographic area in order to have a sufficient customer base to make the Company's business profitable and in light of the

limited restrictions on the type of employment prohibited herein compared to the types of employment for which you are qualified to earn your livelihood.

If any part of this section should be determined by a court of competent jurisdiction to be unreasonable in duration, geographic area, or scope, then this section is intended to and shall extend only for such period of time, in such area and with respect to such activity as is determined to be reasonable.

The limitations on competition contained in this Section 5 shall continue during the Term, as defined in Section 6 below, and for a period of twelve (12) months following the termination of the Term.

6. Term of Consulting Arrangement. Your services as a consultant to the Company hereunder shall commence on the Effective Date and shall continue, unless terminated as provided below, for a period of two years thereafter (the "Term"), which Term shall automatically be extended for an additional period or periods of one year each unless either you or the Company shall have given to the other written notice to the contrary at least ninety (90) days prior to the commencement of such additional period; provided, however, that after the initial two year Term, (a) the Company may terminate this Agreement by giving not less than ninety (90) days prior written notice to you at any time, and (b) the Company shall continue to pay your compensation and expenses in accordance with Section 7 until the date six months after the date of the notice of termination.

7. Compensation.

(a) For such time that you provide services to the Company, the Company shall pay you annual compensation in quarterly installments in advance of the applicable quarter to which compensation applies. Such compensation shall initially be \$0.00 but shall increase upon the occurrence of the following events: (i) \$10,000.00 per year commencing after the Company has completed the Milestone Closing, as that term is defined in the Series A Convertible Preferred Stock Purchase Agreement dated July 25, 2006 by and between the Company and its Investors noted therein, until the Company has raised \$5,000,000.00 in post-Milestone Closing equity financing, license transaction payments, corporate research/partnership or licensing deals of such value, grants of such value, sales of such value or any combination of the foregoing; (ii) \$20,000.00 per year commencing after the Company has raised \$5,000,000.00 in post-Milestone Closing equity financing, license transaction payments, corporate research/partnership or licensing deals of such value, grants of such value, sales of such value or any combination of the foregoing; and (iii) \$40,000.00 per year commencing after the Company has raised \$20,000,000.00 in post-Milestone Closing equity financing, license transaction payments, corporate research/partnership or licensing deals of such value, grants of such value, sales of such value or any combination of the foregoing. Upon the conclusion of the 12 month period following your annual compensation reaching \$40,000.00, and at the conclusion of every subsequent 12 month period, your annual compensation shall increase by 8 percent, provided the Agreement is not terminated and is in full force and effect at that time.

(b) The Company will reimburse you for reasonable out-of-pocket expenses incurred by you in performing services hereunder at the Company's request upon submission of an invoice with reasonable supporting documentation.

8. Continuing Obligations.

(a) Your obligations under this Agreement other than the provisions of Section 1 shall not be affected: (i) by any termination of this Agreement, including termination upon the Company's initiative; nor (ii) by any change in your relationship with the Company; nor (iii) by any interruption in your consulting arrangement with the Company.

(b) Termination of this Agreement shall not affect the Company's obligation to pay for expenses reasonably incurred by you for which you are entitled to reimbursement under Section 7 above.

9. Disclosure to Future Employers. You agree that, if reasonably relevant, you will provide, and that the Company may similarly provide in its discretion, a copy of the acknowledgments and covenants contained in Sections 2, 3, 4 and 5 of this Agreement to any business or enterprise which you may directly, or indirectly, own, manage, operate, finance, join, control or participate in the ownership, management, operation, financing, control or control of, or with which you may be connected as an officer, director, employee, partner, principal, agent, representative, consultant or otherwise.

10. Records. Upon termination of your relationship with the Company, you shall deliver to the Company any property of the Company which may be in your possession including products, materials, memoranda, notes, records, reports, laboratory notebooks, or other documents or photocopies of the same, including without limitation any of the foregoing recorded on any computer or any machine readable medium.

11. No Conflicting Agreements. You hereby represent and warrant that you have no commitments or obligations inconsistent with this Agreement. During the Term of this Agreement, you will not enter into any agreement either written or oral in conflict with this Agreement and will arrange to provide your services under this Agreement in such a manner and at times that your services will not conflict with your responsibilities under any other agreement, arrangement or understanding or pursuant to any employment relationship you have at any time with any third party. If you are a party to any agreement which may be in conflict with this Agreement, please so indicate by identifying that agreement below your signature at the end of this Agreement and attaching a copy hereto.

12. No Employment Created. This Agreement does not constitute, and shall not be construed as constituting, an undertaking by the Company to hire you as an employee of the Company. You acknowledge that you will be working as a consultant only, and not as an employee. You will not be entitled to receive any of the benefits provided by the Company to its employees and you will be solely responsible for the payment of all federal, state and local taxes and contributions imposed or required on income, unemployment insurance, social security and any other law or regulation.

6

13. Waiver of Provisions. Failure of any party to insist, in one or more instances, on performance by the other in strict accordance with the terms and conditions of this Agreement shall not be deemed a waiver or relinquishment of any right granted hereunder or of the future performance of any such term or condition or of any other term or condition of this Agreement, unless such waiver is contained in a writing signed by or on behalf of the waiving party.

14. Notices. Any notice or other communication required or permitted hereunder shall be deemed sufficiently given if sent by facsimile transmission, recognized courier service or certified mail, postage and fees prepaid, addressed to the party to be notified as follows: if to the Company to its address set forth above, and if to you to your address set forth above, or in each case to such other address as either party may from time to time designate in writing to the other. Such notice or communication shall be deemed to have been given as of the date sent by facsimile or delivered to a recognized courier service, or three days following the date deposited with the United States Postal Service.

15. Governing Law. This Agreement shall be governed by and construed and enforced in accordance with the laws of the Commonwealth of Massachusetts, without application of the conflicts of law provisions thereof.

16. Entire Agreement. This Agreement embodies the entire agreement and understanding between the parties hereto and supersedes all prior oral or written agreements and understandings relating to the subject matter hereof. No statement, representation, warranty, covenant or agreement of any kind not set forth in this Agreement shall affect, or be used to interpret, change or restrict, the express terms and provisions of this Agreement.

17. Invalidity. This Agreement is intended to be performed in accordance with, and only to the extent permitted by, all applicable laws, ordinances, rules and regulations. If any provision of this Agreement, or the application thereof to any person or circumstance, shall, for any reason and to any extent, be invalid or unenforceable, the remainder of this Agreement and the application of such provisions to other persons or circumstances shall not be affected thereby, but rather shall be construed, reformed and enforced to the greatest extent permitted by law.

18. Injunctive Relief. You hereby expressly acknowledge that any breach or threatened breach of any of the terms and/or conditions set forth in Sections 2, 3, 4 or 5 of this Agreement may result in substantial, continuing and irreparable injury to the Company. Therefore, you hereby agree that, in addition to any other remedy that may be available to the Company, the Company shall be entitled to injunctive or other equitable relief by a court of appropriate jurisdiction in the event of any breach or threatened breach of the terms of Sections 2,3, 4 or 5 of this Agreement.

19. Assignment. The Company may assign its rights and obligations hereunder to any person or entity who succeeds to all or substantially all of the Company's business or that aspect of the Company's business in which you are principally involved. Your rights and obligations under this Agreement may not be assigned without the prior written consent of the Company.

7

20. Modification and Amendment. This Agreement shall not be modified or amended by an instrument in writing signed by or on behalf of the parties hereto. The Company acknowledge that any amendment of this Agreement or any departure from the terms and conditions hereof with respect to your consulting services for the Company is subject to the option's prior written approval.

21. Interpretation. The parties hereto acknowledge and agree that (i) the rule of construction to the effect that any ambiguities are resolved against the drafting party, and (ii) the intent and provisions of this Agreement, shall be construed fairly as to all parties hereto and not favor of or against a party, regardless of which party was generally responsible for the preparation of this Agreement,

22. Parties Benefitted. Subject to the foregoing, this Agreement shall be binding upon and inure to the benefit of the Company and any parent, subsidiary or other affiliate of the party, and their respective successors and assigns, and shall be binding upon and inure to the benefit of you and your heirs, executors and administrators.

23. Publicity. The Company will not use your name or the Institution's name in any commercial advertisement or similar material that is used to promote or sell products, unless the Company may obtain in advance both your consent and the written consent of the Institution to such

24. Headings. Section and other headings contained in this Agreement are for reference purposes only and are in no way intended to define, interpret, describe or otherwise limit the scope, extent or intent of this Agreement or any of its provisions each of which shall be deemed an original, but all of which together shall constitute one and the same document.

25. Counterparts. This Agreement may be executed in one or more counterparts each of which will be deemed an original, but all of which together shall constitute one and the same instrument.

8

If the foregoing accurately sets forth our agreement, please so indicate by signing and returning to us the enclosed copy of this letter.

Very truly yours,

BIOPLEX SYSTEMS, INC.

By: /s/ W. David Lee

Name: W. David Lee

Title: President

Accepted and Approved:

Consultant

By: /s/ Michael J. Cima

Name: Michael J. Cima

Title: Professor

9

**Dr. Michael Cima**  
184 Mystic Valley Parkway  
Winchester, MA 01890

March 19, 2013

Mr. John McDonough  
T2 Biosystems, Inc.  
101 Hartwell Avenue  
Lexington, MA 02421

Dear Mr. McDonough:

Reference is hereby made to that certain Letter Agreement dated July 20, 2006 between me and T2 Biosystems, Inc. (formerly known as Bioplex Systems, Inc.) (the "Agreement"). This letter hereby confirms our oral agreement that for the time that I provide services to the Company, notwithstanding the compensation set forth in Section 7(a) of the Agreement, my sole compensation under the Agreement is and shall be \$40,000 per year, effective as of October 4, 2010 through the date of termination of the Agreement and payable in quarterly installments in advance of the applicable quarter to which the compensation applies. This letter also confirms that the oral agreement set forth in the preceding sentence was made in connection to and in consideration of options to purchase 100,000 shares of the Company's common stock, par value \$0.001 per share, granted to me by the Company's Board of Directors on or about September 14, 2010. All other provisions of the Agreement shall remain unchanged and in full force and effect pursuant to their terms.

Very truly yours,

/s/ Michael Cima

Michael Cima

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**BIOPLEX SYSTEMS, INC.**  
**343 Otis Street**  
**West Newton, MA 02465**

July 20, 2006

Dr. Robert Langer  
 98 Montvale Road  
 Newton, MA 02459

Dear Dr. Langer:

We are pleased that you have agreed to become a consultant to **Bioplex Systems, Inc.** This Agreement is made as of the date written above (the "Effective Date") between Bioplex Systems, Inc., a Delaware corporation (the "Company") and Dr. Langer, at Massachusetts Institute of Technology (the "Institution"). This letter is to confirm our understanding with respect to (i) your rendering services as a consultant to the Company and (ii) your agreement to protect and preserve information and property which is confidential and proprietary to the Company or other third parties with whom the Company does business (the terms and conditions agreed to in this letter shall hereinafter be referred to as the "Agreement"). In consideration of the mutual promises and covenants contained in this Agreement, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, we have agreed as follows:

1. Services. You agree to render services to the Company as an independent contractor to, and not as an employee of, the Company. You shall provide services to the Company as may be reasonably requested by the Company.

You acknowledge and agree that you will be an independent contractor for all purposes including, but not limited to, payroll and tax purposes, and that you shall not represent yourself to be an employee or officer of the Company unless so designated by a written agreement signed by the Company.

2. Acknowledgments.

(a) The Company acknowledges that you are an employee of the Institution and are subject to the Institution's policies, including policies concerning consulting, conflicts of interest and intellectual property, and that your obligations under the Institution's policies take priority over any obligations you may have to the Company by reason of this Agreement. The Company further acknowledges and agrees that, except as set forth in Section 11, nothing in this Agreement shall affect your obligations to perform research on behalf of the Institution.

(b) You acknowledge and agree that during the course of performing services for the Company, the Company will furnish, disclose or make available to you confidential and proprietary information related to the Company's business. You also acknowledge that such confidential information to be provided by the Company has been developed and will be developed by the Company through the expenditure by the Company of substantial time, effort and money and that all such confidential information could be used by you to compete with the Company.

(c) You further recognize and acknowledge the competitive and proprietary nature of the Company's business operations. You acknowledge and agree that a business will be deemed competitive with the Company if it engages in a line of business in which it performs or plans to perform any of the services, or researches, develops, manufactures or sells any products provided or offered by the Company or planned or under development by the Company in the Company's Field of Interest. The term "Company's Field of Interest" means products and strategies relating to the research, manufacture, and sale of in vitro diagnostics (detection) products and services and device sensors for in vivo use that utilize nanoparticle-based nuclear magnetic resonance ("NMR") methods.

3. Confidentiality; Protected Information.

(a) You may disclose to the Company any information that you would normally freely disclose to other members of the scientific community at large, whether by publication, by presentation at seminars, or in informal scientific discussions. However, you shall not disclose to the Company information that is proprietary to the Institution and that is not in the public domain other than through formal technology transfer procedures.

(b) You shall at all times, both during and after any termination of this Agreement by either the Company or you, maintain in confidence and shall not, without the prior written consent of the Company, use, except in the course of performance of your duties for the Company as a consultant hereunder, disclose, or give to others any fact or information which was disclosed to or developed by you during the course of performing services for the Company hereunder, and which is not in the public domain, including but not limited to information and facts concerning business plans, customers, future customers, suppliers, licensors, licensees, partners, investors, affiliates or other, training methods and materials, financial information, sales prospects, client lists, Inventions (as defined in Section 4), or any other scientific, technical, trade or business secret or product development plan or confidential or proprietary information of the Company or of any third party provided to you in the course of your consultancy to the Company. You also agree not to file patent applications based on the Company's technology or confidential information, nor seek to make improvements thereon, whether in your laboratories at the Institution or elsewhere, without the Company's prior written approval. You agree not to make any copies of such confidential or proprietary information of the Company (except when appropriate for the furtherance of the business of the Company or duly and specifically authorized to do so) and promptly upon request, whether during or after the term of this Agreement, to return to the Company any and all documentary, machine-readable or other elements or evidence of such confidential or proprietary information, and any copies that may be in your possession or under your control. In the event you are questioned by anyone not

2

employed by the Company, in regard to any such information or any other secret or confidential work of the Company, or concerning any fact or circumstance relating thereto, you will promptly notify the President of the Company.

(c) Such confidential or proprietary information subject to Section 3(b) does not include information generated solely by you unless the information (i) is generated as a direct result of the performance of consulting services under this Agreement and (ii) is not generated in the course of your activities as an employee of the Institution.

4. Ownership of Ideas, Copyrights and Patents.

(a) You agree that all ideas, discoveries, creations, materials, compounds, manuscripts and properties, innovations, improvements, know-how, inventions, designs, developments, apparatus, techniques, algorithms, software, mask works, methods, and formulae made, developed or improved by you in the Company's Field of Interest whether or not reduced to practice and whether patentable, copyrightable, protectable as mask works or not, which you may conceive, reduce to practice or develop during the Term (as defined in Section 6) and for a period of one (1) year thereafter, alone or in conjunction with another, or others, and whether at the request or upon the suggestion of the Company, or otherwise, which (i) you develop as a direct result of performing consulting services for the Company under this Agreement and (ii) is not generated in the course of your activities as an employee of the Institution and is not owned by the Institution (all of the foregoing being hereinafter referred to as the "Inventions"), shall be the sole and exclusive property of the Company, and that you shall not publish any of the Inventions without the prior written consent of the Company. You hereby assign to the Company all of your right, title and interest in and to all Inventions. You agree to maintain and furnish to the Company complete and current records of all such Inventions and disclose to the Company in writing any such Inventions. Upon termination of your consulting arrangement with the Company, you shall provide to the Company in writing a full, signed statement of all Inventions in which you participated prior to termination of the consulting arrangement. You further represent and agree that to the best of your knowledge and belief none of the Inventions will violate or infringe upon any right, patent, copyright, trademark or right of privacy, or constitute libel or slander against or violate any other rights of any person, firm or corporation, and that you will use your best efforts to prevent any such violation.

(b) At any time during or after the Term, you agree that you will fully cooperate with the Company, its attorneys and agents, in the preparation and filing of all papers and other documents as may be required to perfect and protect the Company's rights in and to any of such Inventions, including, but not limited to, joining in any proceeding to obtain and enforce letters patent, copyrights, mask work registrations, trademarks or other legal rights of the United States and of any and all other countries on such Inventions, provided that the Company will bear the expense of such proceedings, and that any patent, copyright, mask work registration, trademark, or other legal right so issued to you, personally, shall be assigned by you to the Company without charge by you. You hereby designate the Company as your agent for, and grant to the Company a power of attorney with full power of substitution, which power of attorney shall be deemed coupled with an interest, for the purpose of effecting the foregoing assignments from you to the Company.

5. Limitations on Competition. You hereby agree, in consideration of the Company's agreement to engage you as a consultant hereunder and your compensation for services rendered to the Company and in view of the confidential position to be held by you, and the confidential nature and proprietary value of the information which the Company may share with you, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, as follows:

Except as otherwise indicated in this Agreement, you shall not, without the prior written consent of the Company:

(i) For yourself or on behalf of any other, directly or indirectly, either as principal, agent, stockholder, employee, consultant, representative or in any other capacity, own, manage, operate or control, or be concerned, connected or employed by, or otherwise associate in any manner with, engage in or have a financial interest in any business whose primary line of business is in the Company's Field of Interest, or in any other business in which you have any direct operating or scientific responsibility, as a consultant, employee or otherwise, in the Company's Field of Interest anywhere in the world (hereinafter, the "Restricted Territory"), except that nothing contained herein shall preclude you from purchasing stock in any such competitive business if such stock is publicly traded, and provided that your holdings do not exceed three (3%) percent of the issued and outstanding capital stock of such business.

(ii) Either individually or on behalf of or through any third party, solicit, divert or appropriate or attempt to solicit, divert or appropriate, for the purpose of competing in the Company's Field of Interest with the Company or any present or future parent, subsidiary or other affiliate of the Company which is engaged in the Company's Field of Interest, any joint venture or collaborative research partners, customers or patrons of the Company, or any prospective customers or patrons with respect to which the Company has developed or made a presentation for the use or exploitation of products or processes in the Company's Field of Interest (or similar offering of services), located within the Restricted Territory.

(iii) Either individually or on behalf of or through any third party, directly or indirectly, solicit, entice or persuade or attempt to solicit, entice or persuade any other employees or of consultants to the Company or any present or future parent, subsidiary or affiliate of the Company to leave the services of the Company or any such parent, subsidiary or affiliate for any reason.

You further recognize and acknowledge that (i) the types of employment which are prohibited by this paragraph are narrow and reasonable in relation to the skills which represent your principal salable asset both to the Company and to your other prospective employers, and (ii) the specific but broad geographical scope of the provisions of this paragraph is reasonable, legitimate and fair to you in light of the Company's need to perform its research and to develop and market its services and develop and sell its products in a large geographic area in order to have a sufficient customer base to make the Company's business profitable and in light of the

limited restrictions on the type of employment prohibited herein compared to the types of employment for which you are qualified to earn your livelihood.

If any part of this section should be determined by a court of competent jurisdiction to be unreasonable in duration, geographic area, or scope, then this section is intended to and shall extend only for such period of time, in such area and with respect to such activity as is determined to be reasonable.

The limitations on competition contained in this Section 5 shall continue during the Term, as defined in Section 6 below, and for a period of twelve (12) months following the termination of the Term.

6. Term of Consulting Arrangement. Your services as a consultant to the Company hereunder shall commence on the Effective Date and shall continue, unless terminated as provided below, for a period of two years thereafter (the "Term"), which Term shall automatically be extended for an additional period or periods of one year each unless either you or the Company shall have given to the other written notice to the contrary at least ninety (90) days prior to the commencement of such additional period; provided, however, that after the initial two year Term, (a) the Company may terminate this Agreement by giving not less than ninety (90) days prior written notice to you at any time, and (b) the Company shall continue to pay your compensation and expenses in accordance with Section 7 until the date six months after the date of the notice of termination.

7. Compensation.

(a) For such time that you provide services to the Company, the Company shall pay you annual compensation in quarterly installments in advance of the applicable quarter to which compensation applies. Such compensation shall initially be \$0.00 but shall increase upon the occurrence of the following events: (i) \$10,000.00 per year commencing after the Company has completed the Milestone Closing, as that term is defined in the Series A Convertible Preferred Stock Purchase Agreement dated July 25, 2006 by and between the Company and its Investors noted therein, until the Company has raised \$5,000,000.00 in post-Milestone Closing equity financing, license transaction payments, corporate research/partnership or licensing deals of such value, grants of such value, sales of such value or any combination of the foregoing; (ii) \$20,000.00 per year commencing after the Company has raised \$5,000,000.00 in post-Milestone Closing equity financing, license transaction payments, corporate research/partnership or licensing deals of such value, grants of such value, sales of such value or any combination of the foregoing; and (iii) \$40,000.00 per year commencing after the Company has raised \$20,000,000.00 in post-Milestone Closing equity financing, license transaction payments, corporate research/partnership or licensing deals of such value, grants of such value, sales of such value or any combination of the foregoing. Upon the conclusion of the 12 month period following your annual compensation reaching \$40,000.00, and at the conclusion of every subsequent 12 month period, your annual compensation shall increase by 8 percent, provided the Agreement is not terminated and is in full force and effect at that time.

(b) The Company will reimburse you for reasonable out-of-pocket expenses incurred by you in performing services hereunder at the Company's request upon submission of an invoice with reasonable supporting documentation.

8. Continuing Obligations.

(a) Your obligations under this Agreement other than the provisions of Section 1 shall not be affected: (i) by any termination of this Agreement, including termination upon the Company's initiative; nor (ii) by any change in your relationship with the Company; nor (iii) by any interruption in your consulting arrangement with the Company.

(b) Termination of this Agreement shall not affect the Company's obligation to pay for expenses reasonably incurred by you for which you are entitled to reimbursement under Section 7 above.

9. Disclosure to Future Employers. You agree that, if reasonably relevant, you will provide, and that the Company may similarly provide in its discretion, a copy of the acknowledgments and covenants contained in Sections 2, 3, 4 and 5 of this Agreement to any business or enterprise which you may directly, or indirectly, own, manage, operate, finance, join, control or participate in the ownership, management, operation, financing, control or control of, or with which you may be connected as an officer, director, employee, partner, principal, agent, representative, consultant or otherwise.

10. Records. Upon termination of your relationship with the Company, you shall deliver to the Company any property of the Company which may be in your possession including products, materials, memoranda, notes, records, reports, laboratory notebooks, or other documents or photocopies of the same, including without limitation any of the foregoing recorded on any computer or any machine readable medium.

11. No Conflicting Agreements. You hereby represent and warrant that you have no commitments or obligations inconsistent with this Agreement. During the Term of this Agreement, you will not enter into any agreement either written or oral in conflict with this Agreement and will arrange to provide your services under this Agreement in such a manner and at times that your services will not conflict with your responsibilities under any other agreement, arrangement or understanding or pursuant to any employment relationship you have at any time with any third party. If you are a party to any agreement which may be in conflict with this Agreement, please so indicate by identifying that agreement below your signature at the end of this Agreement and attaching a copy hereto.

12. No Employment Created. This Agreement does not constitute, and shall not be construed as constituting, an undertaking by the Company to hire you as an employee of the Company. You acknowledge that you will be working as a consultant only, and not as an employee. You will not be entitled to receive any of the benefits provided by the Company to its employees and you will be solely responsible for the payment of all federal, state and local taxes and contributions imposed or required on income, unemployment insurance, social security and any other law or regulation.

6

13. Waiver of Provisions. Failure of any party to insist, in one or more instances, on performance by the other in strict accordance with the terms and conditions of this Agreement shall not be deemed a waiver or relinquishment of any right granted hereunder or of the future performance of any such term or condition or of any other term or condition of this Agreement, unless such waiver is contained in a writing signed by or on behalf of the waiving party.

14. Notices. Any notice or other communication required or permitted hereunder shall be deemed sufficiently given if sent by facsimile transmission, recognized courier service or certified mail, postage and fees prepaid, addressed to the party to be notified as follows: if to the Company to its address set forth above, and if to you to your address set forth above, or in each case to such other address as either party may from time to time designate in writing to the other. Such notice or communication shall be deemed to have been given as of the date sent by facsimile or delivered to a recognized courier service, or three days following the date deposited with the United States Postal Service.

15. Governing Law. This Agreement shall be governed by and construed and enforced in accordance with the laws of the Commonwealth of Massachusetts, without application of the conflicts of law provisions thereof.

16. Entire Agreement. This Agreement embodies the entire agreement and understanding between the parties hereto and supersedes all prior oral or written agreements and understandings relating to the subject matter hereof. No statement, representation, warranty, covenant or agreement of any kind not set forth in this Agreement shall affect, or be used to interpret, change or restrict, the express terms and provisions of this Agreement.

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18. Injunctive Relief. You hereby expressly acknowledge that any breach or threatened breach of any of the terms and/or conditions set forth in Sections 2, 3, 4 or 5 of this Agreement may result in substantial, continuing and irreparable injury to the Company. Therefore, you hereby agree that, in addition to any other remedy that may be available to the Company, the Company shall be entitled to injunctive or other equitable relief by a court of appropriate jurisdiction in the event of any breach or threatened breach of the terms of Sections 2, 3, 4 or 5 of this Agreement.

19. Assignment. The Company may assign its rights and obligations hereunder to any person or entity who succeeds to all or substantially all of the Company's business or that aspect of the Company's business in which you are principally involved. Your rights and obligations under this Agreement may not be assigned without the prior written consent of the Company.

7

20. Modification and Amendment. This Agreement shall not be modified or amended except by an instrument in writing signed by or on behalf of the parties hereto. The Company and you acknowledge that any amendment of this Agreement or any departure from the terms and conditions hereof with respect to your consulting services for the Company is subject to the Institution's prior written approval.

21. Interpretation. The parties hereto acknowledge and agree that (i) the rule of construction to the effect that any ambiguities are resolved against the drafting party, and (ii) the terms and provisions of this Agreement, shall be construed fairly as to all parties hereto and not in favor of or against a party, regardless of which party was generally responsible for the preparation of this Agreement.

22. Parties Benefitted. Subject to the foregoing, this Agreement shall be binding upon and inure to the benefit of the Company and any parent, subsidiary or other affiliate of the Company, and their respective successors and assigns, and shall be binding upon and inure to the benefit of you and your heirs, executors and administrators.

23. Publicity. The Company will not use your name or the Institution's name in any commercial advertisement or similar material that is used to promote or sell products, unless the Company obtains in advance both your consent and the written consent of the Institution to such use.

24. Headings. Section and other headings contained in this Agreement are for reference purposes only and are in no way intended to define, interpret, describe or otherwise limit the scope, extent or intent of this Agreement or any of its provisions each of which shall be deemed an original, but all of which together shall constitute one and the same document.

25. Counterparts. This Agreement may be executed in one or more counterparts each of which will be deemed an original, but all of which together shall constitute one and the same instrument.

8

If the foregoing accurately sets forth our agreement, please so indicate by signing and returning to us the enclosed copy of this letter.

Very truly yours,

**BIOPLEX SYSTEMS, INC.**

By: /s/ W. David Lee

Name: W. David Lee

Title: President

Accepted and Approved:

Consultant

By: /s/ Robert Langer

Name: Robert Langer

Title: Professor

9

**Dr. Robert Langer**

March 20, 2013

Mr. John McDonough  
T2 Biosystems, Inc.  
101 Hartwell Avenue  
Lexington, MA 02421

Dear Mr. McDonough:

Reference is hereby made to that certain Letter Agreement dated July 20, 2006 between me and T2 Biosystems, Inc. (formerly known as Bioplex Systems, Inc.) (the "Agreement"). This letter hereby confirms our oral agreement that for the time that I provide services to the Company, notwithstanding the compensation set forth in Section 7(a) of the Agreement, my sole compensation under the Agreement is and shall be \$40,000 per year, effective as of October 4, 2010 through the date of termination of the Agreement and payable in quarterly installments in advance of the applicable quarter to which the compensation applies. This letter also confirms that the oral agreement set forth in the preceding sentence was made in connection to and in consideration of options to purchase 100,000 shares of the Company's common stock, par value \$0.001 per share, granted to me by the Company's Board of Directors on or about September 14, 2010. All other provisions of the Agreement shall remain unchanged and in full force and effect pursuant to their terms.

Very truly yours,

/s/ Robert Langer  
Robert Langer

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## SALES AGREEMENT

This Sales Agreement ("Agreement") is entered into as of February 11, 2011 (the "Effective Date") by and between [\*\*\*] ("Seller's Principal Office"), and **T2 Biosystems, Inc.** ("Purchaser"), a Massachusetts corporation, with its principal office located at 101 Hartwell Avenue, Lexington, MA 02421.

Whereas, Seller is a company with expertise in the development and production of superparamagnetic nanoparticles for diagnostic and life science purposes;

Whereas, Purchaser is engaged in the research, development and commercialization of medical diagnostic products that combine nanotechnology and miniaturized magnetic resonance technology;

NOW, THEREFORE, in consideration of the mutual agreements and covenants contained herein and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Seller and Purchaser agree as follows:

1. **Scope.** This Agreement sets forth the terms and conditions under which Seller will manufacture and supply its products, which are more particularly described on Exhibit A ("Products"), to Purchaser and Purchaser will purchase Products from Seller. Purchaser intends to incorporate, combine or integrate the Products into a Purchaser Product for sale or use by Purchaser's customers (hereinafter "Purchaser's Products"). Accordingly, Purchaser will utilize the Products for further manufacturing, re-packaging, and/or re-labeling such that the Purchaser's Products will be marketed and sold under the Purchaser's brand name. Seller assumes no responsibility or obligation, and provides no warranty or indemnification obligation for any Purchaser Product which has been manufactured, repackaged, and/or re-labeled by Purchaser.

A. **License.** For the term of this Agreement, Seller grants to Purchaser, a non-exclusive, worldwide, non-royalty bearing, sublicensable (only to third parties that may OEM, contract manufacture or sell Purchaser's Product), license to use (including to modify and/or enhance) Products to research, develop, make and sell Purchaser Product(s) for in vitro industrial diagnostics, human diagnostics, and veterinary diagnostics (but excluding therapeutic) purposes. This license shall immediately terminate upon the expiration or termination of this Agreement.

B. **Specifications & Terms.** The Products shall comply with Seller specifications, if any, as set forth on Exhibit B (the "Specifications"). All purchases made pursuant to this Agreement and Purchaser's purchase orders shall be subject to Seller's standard terms and conditions of sale which are attached as Exhibit C as well as the additional terms set forth in Exhibit D.

2. **Pricing; Delivery; Payment.**

A. **Pricing.** The initial price for each Product is listed in Exhibit A to this Agreement. The prices listed in Exhibit A shall be firm for all Purchase Orders (defined below) received by Seller during the first Contract Year (defined below). Seller may increase the prices for the Products no more than once in any calendar year, usually on the first day of January, by giving notice to Purchaser at least 60 days prior to the effective date of such change. These Price increases shall be limited on an annual basis to the greater of (i) the change in the [\*\*\*] for the preceding year, or (ii) [\*\*\*]. Notwithstanding the foregoing, upon [\*\*\*] written notice to the Purchaser, Seller may increase the purchase price for any Product to account for (i) [\*\*\*]; or (ii) [\*\*\*] the Product under this Agreement (any of these events shall be referred to as a "[\*\*\*] Event" and such increase shall be referred to as a "[\*\*\*] Increase"). At the time of providing a price increase notice as permitted under the preceding sentence, Seller shall provide the Purchaser with written evidence of the reason therefore, including any information relating to [\*\*\*], as the case may be. Seller agrees to eliminate [\*\*\*] Increases if the reason giving rise to such [\*\*\*] Event is eliminated or otherwise disappears.

B. **Delivery and Invoicing.** Seller shall use commercially reasonable best efforts to ship Products in accordance with the quantities, delivery dates, and delivery location specified in the written purchase order delivered by the Purchaser ("Purchase Order"). The Purchase Order shall be a firm commitment to purchase the Products in the quantities described therein. Seller shall ship the Products FCA Seller's facility (Incoterms 2000) in accordance with the shipping instructions set forth in the relevant Purchase Order; however, if any Purchase Order does not contain shipping instructions or if such instructions cannot be reasonably achieved, then Seller shall select a carrier or carriers to effect each shipment pursuant to such Purchase Order. Upon delivery of Products to a carrier, Seller shall invoice Purchaser for the Products supplied. Prices and payment terms are subject to terms set forth on attached Exhibit C.

3. **Term and Termination**

A. This Agreement shall take effect on the Effective Date and shall remain in effect until the last day of the fifth Contract Year, unless this Agreement is terminated earlier as provided herein. A "Contract Year" shall be the

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[\*\*\*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

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period commencing on each **January 1<sup>st</sup>** and terminating on **December 31<sup>st</sup>**, however, the first Contract Year shall commence on the **Effective Date** and terminate on **December 31, 2011**.

B. Except as otherwise provided in this Agreement, in the event either party breaches any of the terms, obligations, conditions or undertakings of this Agreement and fails to cure such breach within thirty (30) days after receiving written notice of such breach, the non-breaching party, at its option, may by written notice to the breaching party terminate this Agreement, except termination shall not be effective with respect to those provisions which expressly survive termination of this Agreement. The termination shall be effective upon the receipt of the termination notice.

C. Either party may terminate this Agreement immediately by providing written notice to the other party if the other party becomes insolvent, if a petition in voluntary or involuntary bankruptcy is filed by or against the other party under any chapter of the United States bankruptcy laws and not bonded or discharged within thirty (30) days of the date a receiver or trustee is appointed, or if the other party makes an assignment for the benefit of creditors.

D. The termination, expiration or non-renewal of this Agreement shall not relieve either party from any obligation that accrues pursuant to this Agreement before the effective date of the termination or expiration nor shall it release the parties from any obligation that may have been incurred as a result of operations conducted under this Agreement.

4. **Ordering.**

A. **Forecasts.** Commencing on Purchaser's Commercial Launch of a Purchaser Product, and on the first business day of each calendar quarter thereafter during the term of this Agreement, Purchaser shall provide Seller with a non-binding (except as provided herein) twelve-month rolling forecast of the Products and quantities it intends to purchase during the succeeding twelve-month period. During the first [\*\*\*] after Commercial Launch of the applicable Purchaser Product, [\*\*\*] of the volume of Products specified by Purchaser for the first calendar quarter of each forecast for the applicable Purchaser Product will be binding upon the Purchaser and Purchaser shall issue a Purchase Order for such binding amount. In addition, Commencing [\*\*\*] after Commercial Launch of the applicable Purchaser Product, [\*\*\*] of the volume of Products specified by Purchaser for the first calendar quarter of each forecast for the applicable Purchaser Product will be binding upon the Purchaser and Purchaser shall issue a Purchase Order for such binding amount. If Purchaser fails to issue a Purchase Order for the binding portions of the forecasts as prescribed in this Section 4.A, Seller may issue a binding invoice to Purchaser for the outstanding amount. Except as provided herein, forecasts shall be estimates only and are not binding. All forecasts shall constitute Confidential Information of Purchaser, regardless of whether or not so marked. For purposes of this Agreement, Commercial Launch for a Purchaser Product shall mean Purchaser's first sale of such Purchaser's Product following regulatory approval to market the Purchaser Product.

B. **Lead-Time and Overage Commitment.** Prior to the Commercial Launch of a Purchaser Product, Seller shall have a lead-time of at least [\*\*\*] from the date of receipt of a Purchase Order through the date of delivery of the Products listed on the Purchase Order. Following the Commercial Launch of the Purchaser Product, Seller shall have a lead-time of at least [\*\*\*] from the date of receipt of a Purchase Order through the date of delivery of the Products listed on the Purchase Order. Prior to the Commercial Launch of the Purchaser Product, each Purchase Order placed by Purchaser shall be binding upon the Seller upon Seller's acceptance of such Purchase Orders as provided herein and the Product set forth therein shall be delivered within the applicable lead time set forth above. Following the Commercial Launch of the Purchaser Product, each Purchase Order placed by Purchaser shall be binding upon the Seller to the extent that the Purchaser Order is equal to volumes contained in the portion of the Purchaser's forecast that is binding upon the Purchaser as set forth above. With respect to volumes included in Purchase Orders that are in excess of such binding portions, Seller will endeavor to deliver such excess Product as requested by any Purchase Order; but Seller has no obligation hereunder to expedite delivery for such excess Product unless the parties mutually agree on the terms of such expedited request. Seller shall provide Purchaser with a minimum of twelve (12) months written notice of Seller's intention to discontinue the supply of any Product.

C. **Confirmed Purchase Orders.** Seller shall provide written acceptance of each Purchase Order within three (3) calendar days of its receipt; provided, however, that Seller's failure to accept a Purchase Order shall not alter Seller's obligation to deliver Product that is the subject of a binding Purchase Order as described in 4B above. Purchase Orders shall be transmitted to Seller via

and confirmed in writing to the fax number or email address detailed in this Agreement. Seller assumes no liability for carrier or shipping error or delay. Seller agrees to promptly notify Purchaser if it will be unable, for whatever reason to meet the requested delivery dates. Seller may deliver Product up to seven (7) days early if Seller's manufacturing / dispatch schedule would not

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otherwise facilitate on-time delivery; provided Seller provides prior written notice to Purchaser of the delivery.

D. **Purchase Minimums.** During each Contract Year or portion thereof detailed below, the Purchaser shall purchase at least the below-listed quantity of Products (for each period, the "Minimum Purchase Obligation"):

Contract Year	Minimum Purchase Obligation
First Contract Year	*** Product units ([**] grams)
Second Contract Year	*** Product units ([**] grams)
Third Contract Year	*** Product units ([**] grams)
Fourth Contract Year	*** Product units ([**] grams)
Fifth Contract Year	*** Product units ([**] grams)

If, in any Contract Year, Purchaser fails to purchase the Minimum Purchase Obligation, then Purchaser shall either (i) pay to Seller an amount equal to the difference between the Minimum Purchase Obligation and the actual amount of Product sold; or (ii) within 30 days after the Contract Year in which the Minimum Purchase Obligation is not met, issue a PO to Seller for the difference or shortfall, provided, however, that such amount shall not count toward the subsequent year's Minimum Purchase Obligation. If Purchaser fails to pay this amount to Seller or issue a PO as described above, Seller may (i) offset any amounts owed to Seller or its affiliates by Purchaser; or (ii) increase the purchase price for the Products in addition to any purchase price increase authorized by Section 2.B, to reflect a lower volume of Product purchases by Purchaser, which increase shall be effective as of the first day of the Contract Year after the Contract Year in which Purchaser fails to achieve the Minimum Purchase Obligation.

E. **Seller's Warranties.** In addition to the warranties set forth in Exhibit C, Seller represents and warrants that it has the full legal right to enter into this Agreement with Purchaser. SELLER SHALL NOT BE HELD RESPONSIBLE FOR ANY CHANGE IN PRODUCT PERFORMANCE DUE TO MISHANDLING OR ADULTERATION OF THE PRODUCT BY PURCHASER OR ANY THIRD PARTY, INCLUDING BUT NOT LIMITED TO RE-MANUFACTURING, REPACKAGING, RELABELING OR INCORPORATION OF THE PRODUCT INTO PURCHASER'S PRODUCT. ANY ALTERATION, CHANGE, OR MODIFICATION MADE TO ANY PRODUCT BY ANY PERSON OTHER THAN SELLER OR OTHER THAN AS AUTHORIZED UNDER THIS AGREEMENT SHALL VOID THE PRODUCT WARRANTIES EXTENDED BY SELLER. EXCEPT AS EXPRESSLY PROVIDED IN THE AGREEMENT SELLER DISCLAIMS ANY WARRANTIES, EXPRESS OR IMPLIED, STATUTORY OR OTHERWISE, INCLUDING IMPLIED WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY AND FREEDOM FROM INFRINGEMENT.

F. **Purchaser's Warranties.** Purchaser represents and warrants: (i) Purchaser has the full legal right to enter into this Agreement with Seller; and (ii) Purchaser will make no representations or warranties regarding the Product other than those representations and warranties provided in the Product package inserts.

5. **Regulatory Audit.** Purchaser (inclusive of its employees and representatives) shall have the right to audit Seller's facilities, as Purchaser deems necessary. Seller shall also cooperate with regulatory agency requests to audit Seller's facility, provided, Purchaser shall not be entitled to be present during any regulatory agency inspection. However, exercise of such right shall be subject to the following conditions: (a) Purchaser or its representatives, as the case may be, must sign Seller's standard confidentiality agreement ("Confidentiality Agreement"); (b) Purchaser shall be entitled to conduct only one audit per Contract Year unless additional audits are required by law or regulation or otherwise agreed or unless Purchaser can demonstrate that Seller has materially breached this Agreement; (c) Purchaser audits shall be conducted only after reasonable advance written notice of the audit is provided by Purchaser to Seller and then only at such time as is reasonably convenient to Seller; (d) all information gathered and data reviewed during any such audit shall be "Confidential Information" subject to the provisions of the Confidentiality Agreement; and (e) the scope of each such audit shall be limited to the production and delivery (copies of which shall not be removed from Seller's premises) of the Products under this Agreement and all documentation, data, and other records relating solely thereto, including but not limited to, production standard operating procedures that are not proprietary (e.g., QC, testing, training, etc.), and records and data relating to raw materials. Seller shall cooperate with Purchaser in the performance of such audit.

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6. **Confidentiality.** The contents of this Agreement and any information or items marked confidential or identified as confidential by written notice to the receiving party delivered within thirty (30) days of delivery of the information or item furnished by either party to the other party under or relating to this Agreement may not be divulged by the receiving party to any third party, and such information shall not be used by the receiving party for any purpose other than in connection with this Agreement without the prior written consent of the disclosing party; provided, however, the obligations of confidentiality, nondisclosure and non-use shall not apply to information that (i) is already in, or subsequently comes into, the public domain other than through a violation of this Agreement, (ii) is received by the non-disclosing party on a non-confidential basis from a source which is not prohibited from disclosing such information pursuant to any legal, contractual or fiduciary obligation to the disclosing party, (iii) was already known by the receiving party, as established by written documentation only, at the time of receipt from the disclosing party, (iv) is independently developed, and (v) is required by a court of law or by any governmental, regulatory or administrative agency, body or tribunal to be disclosed by the receiving party, provided that the receiving party gives the disclosing party timely prior notice of such requirement and the receiving party reasonably cooperates with the disclosing party in any attempt made by the disclosing party to obtain protection for such Confidential Information. In protecting the Confidential Information of the disclosing party, the receiving party shall use the same degree of care it uses for its own Confidential Information, but in no event less than a reasonable degree of care. Notwithstanding the foregoing, each party shall have the right to disclose the other party's Confidential Information to such of its consultants, accountants, financial advisors, outside counsel and other representatives with a bona fide need to know the Confidential Information for the purpose of this Agreement or to potential investors (each, a "Representative"). Prior to any such disclosure to a Representative, the receiving party shall have informed the Representative of the requirements of this Agreement and shall have obtained from such Representative an agreement requiring the Representative to protect the Confidential Information under terms and conditions substantially similar to those contained herein. Each party shall be responsible for any breach of this Agreement by its Representatives. The covenants contained in this Section shall survive the termination of this Agreement, regardless of the cause of the termination, for a period of five (5) years from termination of the Agreement.

7. **Relationship of Parties.** Purchaser and Seller are independent entities and neither shall be considered an agent, employee, commercial representative, partner, franchisee or joint venturer of the other. Neither party shall have any authority, absent express written permission from the other party, to enter into any agreement, assume or create any obligations or liabilities, or make representations on behalf of the other party.

8. **Assignment.** Neither party may assign this Agreement to a third party unless both parties have agreed to such assignment in a writing signed by an authorized representative of each party hereto; provided, however, that upon providing written notice, either party may, without the other party's consent, assign this Agreement to an affiliated company or to any third party entity that acquires all or substantially all of its assets, provided such assignee agrees to be bound by the terms and conditions of this Agreement.

9. **Notice.** All communications or notices required or permitted by this Agreement shall be in writing and shall be deemed to have been given on the earlier of the date when actually delivered by personal delivery, commercial courier, or telephonic facsimile transmission accompanied by a telephonic facsimile receipt and followed by a hard copy by the United States mail, or three (3) days after being deposited in the United States mail, certified or registered mail, postage prepaid, return receipt requested, and in each case addressed as follows, unless and until any of such parties notifies the others in accordance with this Section of a change of address:

In the case of Seller, to:

[\*\*\*]

With a copy to:

[\*\*\*]

In the case of Purchaser:

John McDonough, President and CEO  
101 Hartwell Avenue  
Lexington, MA 02421

10. **Governing Law.** This Agreement is governed by and shall be interpreted and construed in accordance with the laws of the Commonwealth of Massachusetts without regard to conflicts of laws. The parties irrevocably submit to the jurisdiction of the State and Federal Courts of the Commonwealth of Massachusetts in any action arising out of or relating to this Agreement. This Agreement will not be subject to the United Nations Convention for the International Sale of Goods.

11. **Arbitration.** If there is a dispute, claim, or controversy between the parties arising out of or in connection with this Agreement, the parties shall settle such matter by binding arbitration under the Commercial

[\*\*\*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Arbitration Rules of the American Arbitration Association in effect on the date of this Agreement. In the event either party commences an arbitration proceeding, the arbitration proceeding shall be held in the county where the Seller's Principal Office is located. Any judgment upon the award rendered by the arbitration may be entered in any court having jurisdiction thereof. This arbitration clause shall survive the termination of this Agreement. **EACH PARTY EXPRESSLY WAIVES ANY RIGHT TO A TRIAL BY JURY.**

12. **Entire Agreement & Amendments.** This Agreement (including its Exhibits) represents the entire agreement between the parties pertaining to its subject matter, and supersedes all prior and contemporary agreements and understandings. The parties intend this Agreement to be the final expression of their agreement with respect to its terms, and the complete and exclusive statement of those terms. No modification, amendment or waiver of any Agreement term shall be binding unless executed in writing by both parties. If there is a conflict between the terms of sale set forth in **Exhibit C** and this Agreement, the terms in this Agreement shall take precedence.

13. **Parties in Interest.** This Agreement shall not be binding on either party until signed by both parties. This Agreement shall be binding on and shall inure to the benefit of the parties to it and their respective heirs, legal representatives, successors, and permitted assignees. Nothing in this Agreement, whether expressed or implied, is intended to confer any rights or remedies under or by reason of this Agreement on any persons other than the parties to it and their respective successors and assignees, nor is anything in this Agreement intended to relieve or discharge the obligation or liability of any third persons to any party to this Agreement, nor shall any provision give any third persons any right to subrogation or action against any party to this Agreement.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed in multiple original counterparts by their duly authorized officers, agents all as of the day and year first above written.

[\*\*\*]

**T2 BIOSYSTEMS, INC.**

By: /s/ John McDonough

Print Name:

Title:

Date: 2/11/2011

[\*\*\*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

**EXHIBIT A  
Product/Price**

Product/Part Number	Bottle Size	Price per bottle	Quantity Range (mL)
[***]	[***]	[***]	[***]

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**EXHIBIT B  
Specifications**

Product/Part Number	Parameter	Specification range	Shelf life	Manufacture lot size
[***]	[***]	[***]	[***]	[***]

[\*\*\*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

**EXHIBIT C  
Terms and Conditions of Sale**

UNLESS OTHERWISE EXPRESSLY AGREED IN WRITING, ALL SALES ARE SUBJECT TO THE FOLLOWING TERMS AND CONDITIONS:

1. **GENERAL.** Microgenics Corporation (“Seller”) hereby offers for sale to the buyer named on the face hereof (“Purchaser”) the products listed on the face hereof (the “Products”) on the express condition that Purchaser agrees to accept and be bound by the terms and conditions set forth herein. Any provisions contained in any document issued by Purchaser are expressly rejected and if the terms and conditions in this Agreement differ from the terms of Purchaser’s offer, this document shall be construed as a counter offer and shall not be effective as an acceptance of Purchaser’s document. Purchaser’s receipt of Products or Seller’s commencement of the services provided hereunder will constitute Purchaser’s acceptance of this Agreement. These Terms and Conditions of Sale and the Sales Agreement to which they are attached as Exhibit C, and all other Exhibits attached to the Sales Agreement represent the complete and exclusive statement of the contract between Seller and Purchaser with respect to Purchaser’s purchase of the Products. No waiver, consent, modification, amendment or change of the terms contained herein shall be binding unless in writing and signed by Seller and Purchaser. Seller’s failure to object to terms contained in any subsequent communication from Purchaser will not be a waiver or modification of the terms set forth herein.

2. **PRICE.** All prices shall be as set forth in Exhibit A of the Sales Agreement.

3. **TAXES AND OTHER CHARGES.** Prices for the Products exclude all sales, value added and other taxes and duties imposed with respect to the sale, delivery, or use of any Products covered hereby, all of which taxes and duties must be paid by Purchaser. If Purchaser claims any exemption, Purchaser must provide a valid, signed certificate or letter of exemption for each respective jurisdiction.

4. **TERMS OF PAYMENT.** Seller may invoice Purchaser upon shipment for the price and all other charges payable by Purchaser in accordance with the terms on the face hereof. If no payment terms are stated on the face hereof, payment shall be net thirty (30) days from the date of Buyer’s receipt of the invoice. If Purchaser fails to pay any amounts when due, Purchaser shall pay Seller interest thereon at a periodic rate of [\*\*\*] per month (or, if lower, the highest rate permitted by law), together with all costs and expenses (including without limitation reasonable attorneys’ fees and disbursements and court costs) incurred by Seller in collecting such overdue amounts or otherwise enforcing Seller’s rights hereunder. Seller reserves the right to require from Purchaser full or partial payment in advance, or other security that is satisfactory to Seller, at any time that Seller believes in good faith that Purchaser’s financial condition does not justify the terms of payment specified. All payments shall be made in U.S. Dollars.

5. **DELIVERY; CANCELLATION OR CHANGES BY BUYER.** The Products will be shipped to the destination specified by Purchaser, F.C.A. Seller’s shipping point Seller will have the right, at its election, to make partial shipments of the Products and to invoice each shipment separately. Seller reserves the right to stop delivery of Products in transit and to withhold shipments in whole or in part if Purchaser fails to make any payment to Seller when due or otherwise fails to perform its obligations hereunder. Seller will not be liable for any loss or damage resulting from any delay in delivery or failure to deliver which is due to any cause beyond Seller’s reasonable control. In the event of a delay due to any cause beyond Seller’s reasonable control, Buyer shall have the option to cancel the Purchase Orders in process without penalty if a mutually acceptable delivery schedule cannot be agreed upon within 30 days of Buyer’s receipt of notification of the delay. Orders in process may not be changed except with mutual consent by the parties, including, when applicable, an appropriate adjustment in the purchase price therefor. Credit will not be allowed for Products returned without the prior written consent of Seller.

6. **TITLE AND RISK OF LOSS.** Notwithstanding the trade terms indicated above and subject to the provisions of Section 7 below and to Seller’s right to stop delivery of Products in transit, title to and risk of loss of the Products will pass to Purchaser upon delivery of possession of the Products by Seller to the carrier; provided, however, that title to any software incorporated within or forming a part of the Products shall at all times remain with Seller or the licensor(s) thereof, as the case may be.

7. **WARRANTY.** Seller warrants that the Products will operate or perform substantially in conformance with Seller’s published specifications and be free from defects in material and workmanship, when subjected to normal, proper and intended usage by properly trained personnel, for the period of time set forth in the product documentation, published specifications or package inserts. If a period of time is not specified in Seller’s product documentation, published specifications or package inserts, the warranty period shall be one (1) year from the date of shipment to Purchaser for equipment and ninety (90) days for all other products (the “Warranty Period”). Seller agrees during the Warranty Period, to repair or replace, at Seller’s option, defective Products so as to cause the same to operate in substantial conformance with said published specifications; provided that Purchaser shall (a) promptly notify Seller in writing upon the discovery of any defect, which notice shall include the product model and serial number (if applicable) and details of the warranty claim; and (b) after Seller’s review, Seller will provide Purchaser with service data and/or a Return Material Authorization (“RMA”), which may include biohazard decontamination procedures and other product-specific handling instructions, then, if applicable, Purchaser may return the defective Products to Seller with all costs prepaid by Purchaser. Replacement parts may be new or refurbished, at the election of Seller. All replaced parts shall become the property of Seller. Shipment to Purchaser of repaired or replacement Products shall be made in accordance with the Delivery provisions of the Seller’s Terms and Conditions of Sale. Consumables are expressly excluded from the warranty under this warranty. Notwithstanding the foregoing, Products supplied by Seller that are obtained by Seller from an original manufacturer or third party supplier are not warranted by Seller, but Seller agrees to assign to Purchaser any warranty rights in such Product that Seller may have from the original manufacturer or third party supplier, to the extent such assignment is allowed by such original manufacturer or third party supplier.

In no event shall Seller have any obligation to make repairs, replacements or corrections required, in whole or in part, as the result of (i) normal wear and tear, (ii) accident, disaster or event of force majeure, (iii) misuse, fault or negligence of or by Purchaser, (iv) use of the Products in a manner for which they were not designed, (v) causes external to the Products such as, but not limited to, power failure or electrical power surges, (vi) improper storage and handling of the Products or (vii) use of the Products in combination with equipment or software not supplied by Seller. If Seller determines that Products for which Purchaser has requested warranty services are not covered by the warranty hereunder, Purchaser shall pay or reimburse Seller for all costs of investigating and responding to such request at Seller’s then prevailing time and materials rates. If Seller provides repair services or replacement parts that are not covered by the warranty provided in this warranty, Purchaser shall pay Seller therefor at Seller’s then prevailing time and materials rates. ANY INSTALLATION, MAINTENANCE, REPAIR, SERVICE, RELOCATION OR ALTERATION TO OR OF, OR OTHER TAMPERING WITH, THE PRODUCTS PERFORMED BY ANY PERSON OR ENTITY OTHER THAN SELLER WITHOUT SELLER’S PRIOR WRITTEN APPROVAL, OR ANY USE OF REPLACEMENT PARTS NOT SUPPLIED BY SELLER, SHALL IMMEDIATELY VOID AND CANCEL ALL WARRANTIES WITH RESPECT TO THE AFFECTED PRODUCTS.

THE OBLIGATIONS CREATED BY THIS WARRANTY STATEMENT TO REPLACE A DEFECTIVE PRODUCT SHALL BE THE SOLE REMEDY OF BUYER IN THE EVENT OF A DEFECTIVE PRODUCT. EXCEPT AS EXPRESSLY PROVIDED IN THIS WARRANTY STATEMENT, SELLER DISCLAIMS ALL OTHER WARRANTIES, WHETHER EXPRESS OR IMPLIED, ORAL OR WRITTEN, WITH RESPECT TO THE PRODUCTS, INCLUDING WITHOUT LIMITATION ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE. SELLER DOES NOT WARRANT THAT THE PRODUCTS ARE ERROR-FREE OR WILL ACCOMPLISH ANY PARTICULAR RESULT.

8. **INDEMNIFICATION.**

8.1 **By Seller.** Seller agrees to indemnify, defend and save Purchaser, its officer, directors, and employees from and against any and all damages, liabilities, actions, causes of action, suits, claims, demands, losses, costs and expenses (including without limitation reasonable attorney’s fees) (“Indemnified Items”) for (i) injury to or death of persons or damage to property to the extent caused by the negligence or willful misconduct of Seller, its employees, agents or representatives or contractors in connection with the performance of services at Purchaser’s premises under this Agreement and (ii) claims that a Product infringes any valid United States patent, copyright or trade secret; provided, however, Seller shall have no liability under this Section to the extent any such Indemnified Items are caused by either (i) the negligence or willful misconduct of Purchaser, its employees, agents or representatives or contractors, (ii) by any third party, (iii) use of a Product in combination with equipment or software not supplied by Seller where the Product would not itself be infringing, (iv) compliance with Purchaser’s designs, specifications or instructions, (v) use of the Product in an application or environment for which it was not designed or (vi) modifications of the Product by anyone other than Seller without Seller’s prior written approval. Purchaser shall

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provide Seller prompt written notice of any third party claim covered by Seller’s indemnification obligations hereunder. Seller shall have the right to assume exclusive control of the defense of such claim or, at the option of the Seller, to settle the same. Purchaser agrees to cooperate reasonably with Seller in connection with the performance by Seller of its obligations in this Section.

Notwithstanding the above, Seller’s infringement related indemnification obligations shall be extinguished and relieved if Seller, at its discretion and at its own expense (a) procures for Purchaser the right, at no additional expense to Purchaser, to continue using the Product; (b) replaces or modifies the Product so that it becomes non-infringing, provided the modification or replacement does not adversely affect the specifications of the Product; or (c) in the event (a) and (b) are not practical, refund to Purchaser the amortized amounts paid by Purchaser with respect thereto, based on a five (5) year amortization schedule. THE FOREGOING INDEMNIFICATION PROVISION STATES SELLER’S ENTIRE LIABILITY TO BUYER FOR THE CLAIMS DESCRIBED HEREIN.

8.2 **By Purchaser.** Purchaser shall indemnify, defend with competent and experienced counsel and hold harmless Seller, its parent, subsidiaries, affiliates and divisions, and their respective officers, directors, shareholders and employees, from and against any and all damages, liabilities, actions, causes of action, suits, claims, demands, losses, costs and expenses (including without limitation reasonable attorneys’ fees and disbursements and court costs) to the extent arising from or in connection with (i) the negligence or willful misconduct of Purchaser, its agents, employees, representatives or contractors; (ii) use of a Product in combination with equipment or software not supplied by Seller where the Product itself would not be infringing; (iii) Seller’s

compliance with designs, specifications or instructions supplied to Seller by Purchaser; (iv) use of a Product in an application or environment for which it was not designed; (v) modifications of a Product by anyone other than Seller without Seller's prior written approval; or (vi) claims that Purchaser's Product infringes any valid United States patent, copyright or trade secret.

9. **SOFTWARE.** With respect to any software products incorporated in or forming a part of the Products hereunder, Seller and Purchaser intend and agree that such software products are being licensed and not sold, and that the words "purchase", "sell" or similar or derivative words are understood and agreed to mean "license", and that the word "Purchaser" or similar or derivative words are understood and agreed to mean "licensee". Notwithstanding anything to the contrary contained herein, Seller or its licensor, as the case may be, retains all rights and interest in software products provided hereunder.

Seller hereby grants to Purchaser a royalty-free, non-exclusive, nontransferable license, without power to sublicense, to use software provided hereunder solely for Purchaser's own internal business purposes on the hardware products provided hereunder and to use the related documentation solely for Purchaser's own internal business purposes. This license terminates when Purchaser's lawful possession of the hardware products provided hereunder ceases, unless earlier terminated as provided herein. Purchaser agrees to hold in confidence and not to sell, transfer, license, loan or otherwise make available in any form to third parties the software products and related documentation provided hereunder. Purchaser may not disassemble, decompile or reverse engineer, copy, modify, enhance or otherwise change or supplement the software products provided hereunder without Seller's prior written consent. Seller will be entitled to terminate this license if Purchaser fails to comply with any term or condition herein. Purchaser agrees, upon termination of this license, immediately to return to Seller all software products and related documentation provided hereunder and all copies and portions thereof.

Certain of the software products provided by Seller may be owned by one or more third parties and licensed to Seller. Accordingly, Seller and Purchaser agree that such third parties retain ownership of and title to such software products. The warranty and indemnification provisions set forth herein shall not apply to software products owned by third parties and provided hereunder.

10. **LIMITATION OF LIABILITY.** NOTWITHSTANDING ANYTHING TO THE CONTRARY CONTAINED HEREIN, THE LIABILITY OF SELLER UNDER THESE TERMS AND CONDITIONS (WHETHER BY REASON OF BREACH OF CONTRACT, TORT, INDEMNIFICATION, OR OTHERWISE, BUT EXCLUDING LIABILITY OF SELLER FOR BREACH OF WARRANTY (THE SOLE REMEDY FOR WHICH SHALL BE AS PROVIDED UNDER SECTION 7 ABOVE)) SHALL NOT EXCEED AN AMOUNT EQUAL TO TWICE THE TOTAL ANNUAL PURCHASE PRICE THEREFORE PAID BY BUYER TO SELLER UNDER THIS AGREEMENT. NOTWITHSTANDING ANYTHING TO THE CONTRARY CONTAINED HEREIN, IN NO EVENT SHALL EITHER PARTY BE LIABLE TO THE OTHER FOR ANY INDIRECT, SPECIAL, CONSEQUENTIAL OR INCIDENTAL DAMAGES (INCLUDING WITHOUT LIMITATION DAMAGES FOR LOSS OF USE OF FACILITIES OR EQUIPMENT, LOSS OF REVENUE, LOSS OF DATA, LOSS OF PROFITS OR LOSS OF GOODWILL), REGARDLESS OF WHETHER SUCH PARTY (a) HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES OR (b) IS NEGLIGENT. THE LIMITATIONS OF LIABILITY DESCRIBED IN THIS SECTION 10 SHALL NOT APPLY TO DAMAGES RESULTING FROM BREACHES BY A PARTY OF ITS DUTY OF CONFIDENTIALITY IMPOSED HEREUNDER OR UNDER THE SALES AGREEMENT.

11. **EXPORT RESTRICTIONS.** Purchaser acknowledges that each Product and any related software and technology, including technical information supplied by Seller or contained in documents (collectively "Items"), is subject to export controls of the U.S. government. The export controls may include, but are not limited to, those of the Export Administration Regulations of the U.S. Department of Commerce (the "EAR"), which may restrict or require licenses for the export of Items from the United States and their re-export from other countries. Purchaser shall comply with the EAR and all other applicable laws, regulations, laws, treaties, and agreements relating to the export, re-export, and import of any Item. Purchaser shall not, without first obtaining the required license to do so from the appropriate U.S. government agency; (i) export or re-export any Item, or (ii) export, re-export, distribute or supply any Item to any restricted or embargoed country or to a person or entity whose privilege to participate in exports has been denied or restricted by the U.S. government. Purchaser shall cooperate fully with Seller in any official or unofficial audit or inspection related to applicable export or import control laws or regulations, and shall indemnify and hold Seller harmless from, or in connection with, any violation of this Section by Purchaser or its employees, consultants, agents, or customers.

12. **MISCELLANEOUS.** (a) Any action arising under this Agreement must be brought within one (1) year from the date that the cause of action arose. (b) The application to this Agreement of the U.N. Convention on Contracts for the International Sale of Goods is hereby expressly excluded. (c) In the event that any one or more provisions contained herein shall be held by a court of competent jurisdiction to be invalid, illegal or unenforceable in any respect, the validity, legality and enforceability of the remaining provisions contained herein shall remain in full force and effect, unless the revision materially changes the bargain. (c) One party's failure to enforce, or such party's waiver of a breach of, any provision contained herein shall not constitute a waiver of any other breach or of such provision. (d) Purchaser agrees that all pricing, discounts and technical information that Seller provides to Purchaser are the confidential and proprietary information of Seller. Purchaser agrees to (1) keep such information confidential and not disclose such information to any third party, and (2) use such information solely for Purchaser's internal purposes and in connection with the Products supplied hereunder. Nothing herein shall restrict the use of information available to the general public.

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## EXHIBIT D — Additional Terms

1. **WARRANTY.** The following representations and warranties shall be added:

A. Both parties shall comply with all federal, state/province laws, regulations and orders applicable to its operations, including without limitation, all applicable laws and regulations having jurisdiction over the manufacturing, storage, import, export, handling or sale of the Product ("Applicable Laws"), including the maintenance of such records necessary to demonstrate compliance. Both parties obtained and will maintain for the term of the Agreement, all licenses, permits, authorizations, approvals and reviews required by any federal, state/province or local governmental authority for performance of any activities under this Agreement.

B. To the best of Seller's knowledge, the Products provided by Seller do not violate any valid patent, trade secret or other proprietary or intellectual property right of any third party, and all Product delivered to Purchaser shall be free of any liens or encumbrances.

C. Neither Seller nor Purchaser, nor their officers, personnel or any other person used by Seller or Purchaser to perform this Agreement has been (a) debarred, convicted, or is subject to a pending debarment or conviction, pursuant to section 306 of the United States Food Drug and Cosmetic Act, 21 U.S.C. § 335a or any non-U.S. equivalent regulation, (b) listed by any government or regulatory agencies as ineligible to participate in any government healthcare programs or government procurement or non-procurement programs (as that term is defined in 42 U.S.C. 1320a-7b(f) or any non-U.S. equivalent), or excluded, debarred, suspended or otherwise made ineligible to participate in any such program, or (c) convicted of a criminal offense related to the provision of healthcare items or services, or is subject to any such pending action. The parties shall inform each other in writing promptly if it or any person who is performing services hereunder is subject to the foregoing, or if any action, suit, claim, investigation, or proceeding relating to the foregoing is pending, or to the best of such party's knowledge, is threatened.

2. **QUALITY**

The following quality requirements shall apply to the Products and this Agreement:

A. In addition to the audit described in Section 5 of the Sales Agreement, Seller will use commercially reasonable efforts to comply with requirements for supplier evaluation and qualification performance, which consist of (i) an initial supplier qualification audit by Buyer, (ii) Seller's completion of the supplier questionnaire attached hereto as Exhibit E.

B. Seller shall maintain complete and accurate records relating to its activities under this Agreement. Seller shall retain all such records for not less than seven (7) years following the date of manufacture.

C. Seller shall comply with applicable industry standard quality principles, including without limitation, in areas such as production and process controls, material controls, process validation and equipment qualification, calibration and maintenance, (e.g., conformance with ISO 13485:200, Quality management systems — Requirements).

D. The parties shall cooperate with all quality-related investigations and resolution of any non-conformance issues involving Products.

3. **INSURANCE**

During the term of this Agreement and for \*\*\* thereafter, each party shall maintain appropriate insurance, (including workers compensation, general commercial liability insurance, product liability and automobile insurance) with respect to its' obligations under this Agreement, including without limitation, the manufacture of Product or Purchaser's Product, as the case may be. The levels of insurance coverage maintained shall be commensurate with those that are customary in the industry for similar activities and shall be with financially sound and reputable insurers. Upon request, either party shall have its insurance agent forward a certificate of insurance evidencing such insurance to the other party.

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**THE GENERAL HOSPITAL CORPORATION  
EXCLUSIVE LICENSE AGREEMENT**

**MGH Agreement No.: 2006A21314  
MGH Case Nos.: 1864 and 2745**

This License Agreement (“AGREEMENT”) is made as of the 7th day of November, 2006 (“EFFECTIVE DATE”), between Bioplex Systems, Inc., a Delaware corporation, having a principal place of business at One Memorial Drive, Cambridge, Massachusetts 02142 (“COMPANY”) and The General Hospital Corporation, d/b/a Massachusetts General Hospital, a not-for-profit Massachusetts corporation, with a principal place of business at Fruit Street, Boston, Massachusetts 02114 (“HOSPITAL”), each referred to herein individually as a “PARTY” and collectively as the “PARTIES”.

**RECITALS**

HOSPITAL, as a center for patient care, research and education, is the owner of certain PATENT RIGHTS (defined below) and desires to grant a license of those PATENT RIGHTS to COMPANY in order to benefit the public by disseminating the results of its research via the commercial development, manufacture, distribution and use of products and processes.

COMPANY has the capability to commercially develop, manufacture, distribute and use PRODUCTS and PROCESSES (defined below) for public use and benefit and desires to license such PATENT RIGHTS.

For good and valuable consideration, the sufficiency of which is hereby acknowledged, the PARTIES hereto agree as follows:

**1. CERTAIN DEFINITIONS**

The following terms shall have the following meanings as used herein, unless the context requires otherwise.

1.1 “[\*\*\*] PATENT RIGHTS” shall mean HOSPITAL’s rights in the [\*\*\*]; or the equivalent of such applications including any division, continuation, continuation-in-part to the extent the claims are entitled to the priority filing date of the aforesaid mentioned application and are directed to subject matter specifically described in and reasonably supported by the aforesaid patent application, or any foreign patent application or Letters Patent or the equivalent thereof issuing thereon or reissue, reexamination or extension thereof.

1.2 “[\*\*\*] PATENT RIGHTS” shall mean HOSPITAL’s rights in the [\*\*\*]; or the equivalent of such applications including any division, continuation, continuation-in-part to the extent the claims are entitled to the priority filing date of the aforesaid mentioned application and are directed to subject matter specifically described in and reasonably supported by the aforesaid patent application or any foreign patent application or Letters Patent or the equivalent thereof issuing thereon or reissue, reexamination or extension thereof.

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1.3 “AFFILIATE” with respect to either PARTY shall mean any corporation or other legal entity other than that PARTY in whatever country organized, controlling, controlled by or under common control with that PARTY. The term “control” shall mean (a) in the case of COMPANY, direct or indirect ownership of at least fifty percent (50%) of the voting securities having the right to elect directors, and (b) in the case of HOSPITAL, the power, direct or indirect, to elect or appoint more than fifty percent (50%) of the directors or trustees, or to cause direction of management and policies, whether through the ownership of voting securities, by contract or otherwise.

1.4 “ANALYTE” shall mean any material or substance, including but not limited to chemical or biological substances, peptides, nucleic acids, proteins, drugs, lipids, lipoproteins, or steroids.

1.5 “CLAIM” shall mean any pending or issued claim of any PATENT RIGHT that has not been permanently revoked, nor held unenforceable or invalid by a decision of a court or other governmental agency of competent jurisdiction that is unappealable or unappealed in the time allowed for appeal, and which has not been admitted to be invalid or unenforceable through reissue or disclaimer or otherwise. For the purpose of this Section 1.5, a claim shall be considered “pending” if it has been pending without being granted, allowed or issued for less than [\*\*\*], or its equivalent in non-U.S. jurisdictions, for each application in its specific country or region.

1.6 “COMMERCIAL SALE” shall mean any TRANSFER of a PRODUCT or PROCESS by COMPANY, an AFFILIATE or SUBLICENSEE (which may include a TRANSFER to an AFFILIATE or SUBLICENSEE), for value, in the form of cash or otherwise.

1.7 “DIAGNOSTIC PROCESS” shall mean any process, method or service for the monitoring of the presence or absence of or measuring the concentration or level(s) of an ANALYTE(S) in a human subject, the use or performance of which, in whole or in part, absent the licenses granted hereunder would infringe, or is covered by, one or more CLAIMS of PATENT RIGHTS.

1.8 “DIAGNOSTIC PRODUCT” shall mean any article, device or composition for the monitoring of the presence or absence of or measuring the concentration or level(s) of an ANALYTE(S) in a human subject, the manufacture, use, or sale of which, in whole or in part, absent the licenses granted hereunder would infringe, or is covered by, one or more CLAIMS of PATENT RIGHTS.

1.9 “GROSS SALES” shall mean the greatest of the gross amount billed, invoiced or received by COMPANY, its AFFILIATES and SUBLICENSEES for TRANSFER of PRODUCTS and PROCESSES by COMPANY, AFFILIATES and its SUBLICENSEES, but excluding (i) any amounts billed, invoiced or received resulting from any TRANSFER of any PRODUCT or PROCESS between or among COMPANY, an AFFILIATE or any SUBLICENSEE, unless the transferee is the final purchaser of such PRODUCT or PROCESS; and (ii) any royalty or similar payment by SUBLICENSEE to AFFILIATE or COMPANY, or by AFFILIATE to COMPANY, on account of a TRANSFER of any PRODUCT or PROCESS by a SUBLICENSEE or AFFILIATE, as the case may be, to a third party.

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1.10 “INDUSTRIAL PROCESS” shall mean process, method or service, (a) for the monitoring of the presence or absence of or measuring the concentration or level(s) of an ANALYTE(S) in a sample, substance or liquid, where such sample, substance, or liquid comes from a non-human or is derived from a non-human sample, and (b) which is not a RESEARCH PROCESS or DIAGNOSTIC PROCESS, the use or performance of which, in whole or in part, absent the licenses granted hereunder would infringe, or is covered by, one or more CLAIMS of PATENT RIGHTS.

1.11 “INDUSTRIAL PRODUCT” shall mean any article, device or composition, (a) for the monitoring of the presence or absence of or measuring the concentration or level(s) of an ANALYTE(S) in a sample, substance, or liquid, where such sample, substance, or liquid comes from a non-human or is derived from a non-human sample, and (b) which is not a RESEARCH PRODUCT or DIAGNOSTIC PRODUCT, the manufacture, use, or sale of which, in whole or in part, absent the licenses granted hereunder would infringe, or is covered by, one or more CLAIMS of PATENT RIGHTS.

1.12 “LICENSE TERRITORY” shall mean worldwide.

1.13 “NET SALES” shall mean:

(a) (i) for TRANSFERS by COMPANY, its AFFILIATES, and SUBLICENSEES, (for the purposes of this Section 1.13, each a “SELLER”), GROSS SALES less (to the extent appropriately documented) the following amounts actually paid or otherwise incurred by a SELLER in effecting such TRANSFER:

- (1) credits and allowances by reason of rejection or return;
  - (2) reasonable and customary rebates, discounts and chargebacks;
  - (3) amounts for outbound transportation, insurance, handling and shipping, to the extent separately invoiced; and
  - (4) taxes, customs duties and other governmental charges levied on or measured by COMMERCIAL SALES, to the extent separately invoiced, whether paid by or on behalf of COMPANY so long as COMPANY's price is reduced thereby, but not franchise or income taxes of any kind whatsoever; and
- (ii) for TRANSFERS which occur in an arm's length, standalone transaction by a SELLER to a DISTRIBUTOR, GROSS SALES less the deductions permitted by clauses (a)(i)(l) through (a)(i)(4) and any other income, including but not limited to payments for distribution rights, received by said SELLER from said DISTRIBUTOR based on sales of PRODUCTS and PROCESSES. "DISTRIBUTOR" shall mean any bona fide third party distributor with no other rights except for the right to distribute or sell PRODUCTS and PROCESSES on behalf of a SELLER, and which is not an AFFILIATE or SUBLICENSEE.

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(b) No deductions shall be made for commissions paid to individuals whether they be with independent sales agencies or employed by a SELLER or otherwise, or for any cost of collections.

(c) NET SALES shall occur on the earlier of the date of billing or invoicing for TRANSFER of a PRODUCT or PROCESS. For a PRODUCT or PROCESS for which SELLER does not bill or invoice, NET SALES shall occur on the date on which payment is due or made to the SELLER, whichever is earlier. If the date on which such payment is due or made cannot be ascertained, NET SALES shall be deemed to have occurred on the date the PRODUCT or PROCESS was TRANSFERRED.

(d) If a SELLER TRANSFERS any PRODUCT or PROCESS at a discounted price with a discount that is greater than the discount permitted by clause (a)(i)(2), or for non-cash consideration (whether or not at a discount), NET SALES shall be calculated based on the average cash amount charged to independent third parties for the PRODUCT or PROCESS during the same REPORTING PERIOD, or, in the absence of such transaction, on the fair market value of the non-cash consideration.

(e) In the case of a TRANSFER of a PRODUCT within COMPANY or between or among COMPANY, any AFFILIATE or SUBLICENSEE, solely for further TRANSFER by such transferee, NET SALES shall be based on the further TRANSFER of such PRODUCT by such transferee.

1.14 "PATENT RIGHTS" shall mean \*\*\* PATENT RIGHTS and/or \*\*\* PATENT RIGHTS.

1.15 "PROCESS" shall mean any DIAGNOSTIC PROCESS, INDUSTRIAL PROCESS, or RESEARCH PROCESS.

1.16 "PRODUCT" shall mean any DIAGNOSTIC PRODUCT, INDUSTRIAL PRODUCT, or RESEARCH PRODUCT.

1.17 "RESEARCH PROCESS" shall mean any process, method or service for research and development applications, excluding any DIAGNOSTIC PROCESS or INDUSTRIAL PROCESS, the use or performance of which, in whole or in part, absent the licenses granted hereunder would infringe, or is covered by, one or more CLAIMS of PATENT RIGHTS.

1.18 "RESEARCH PRODUCT" shall mean any article, device or composition for research and development applications, excluding any DIAGNOSTIC PRODUCT or INDUSTRIAL PRODUCT, the manufacture, use, or sale of which, in whole or in part, absent the licenses granted hereunder would infringe, or is covered by, one or more CLAIMS of PATENT RIGHTS.

1.19 "REPORTING PERIOD" shall mean each three (3) month period ending March 31, June 30, September 30 and December 31.

1.20 "SUBLICENSEE" shall mean (a) any third party sublicensee of the rights granted by COMPANY under Section 2.1(a)(ii) and (b) any further sublicensee of such party in the foregoing Section 1.20(a).

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1.21 "TRANSFER" shall mean to sell or have sold, to lease or have leased, to export or have exported, to distribute or have distributed, or otherwise to transfer or have transferred, for value in the form of cash or otherwise, a PRODUCT or PROCESS, and further in the case of a PROCESS to use or perform such PROCESS for the benefit of a third party.

## 2. LICENSE

### 2.1 Grant of License.

(a) Subject to the terms of this AGREEMENT, HOSPITAL hereby grants to COMPANY in the LICENSE TERRITORY:

(i) an exclusive, royalty-bearing license under PATENT RIGHTS to make, have made, use, have used, import or have imported and TRANSFER PRODUCTS and to use, have used and TRANSFER PROCESSES;

(ii) the right to grant sublicenses under the rights granted in Section 2.1(a)(i) to SUBLICENSEES, provided that in each case COMPANY shall be responsible for the performance of any obligations of SUBLICENSEES relevant to this AGREEMENT as if such performance were carried out by COMPANY itself, including, without limitation, the payment of any royalties or other payments provided for hereunder, regardless of whether the terms of any sublicense provide for such amounts to be paid by the SUBLICENSEE directly to HOSPITAL.

(b) The licenses granted in Section 2.1(a) above include the right to grant to the purchaser of PRODUCTS from COMPANY, AFFILIATES and SUBLICENSEES the right to use such purchased PRODUCTS in a method coming within the scope of PATENT RIGHTS, including, without limitation, in any PROCESS.

(c) The foregoing license grants shall include the grant of said license to any AFFILIATE of COMPANY, provided that such AFFILIATE shall assume the same obligations as those of COMPANY and be subject to the same terms and conditions hereunder and further provided that COMPANY shall be responsible for the performance by said AFFILIATE of said obligations and for compliance by said AFFILIATE with said terms and conditions. COMPANY shall provide to HOSPITAL a fully signed, non-redacted copy of each agreement with each AFFILIATE that assumes the aforesaid obligations, including all exhibits, attachments and related documents and any amendments, within thirty (30) days of request by HOSPITAL.

2.2 Sublicenses. All sublicenses granted hereunder shall be consistent with the terms of this AGREEMENT, shall incorporate terms and conditions sufficient to enable COMPANY to comply with this AGREEMENT COMPANY shall provide to HOSPITAL a fully signed non-redacted (except for running royalties and confidential information of the sublicensee) copy of all sublicense agreements, including, but not limited to, sublicense agreements between direct SUBLICENSEES of COMPANY and further sublicensees of SUBLICENSEES, and amendments thereto, including all exhibits, attachments and related documents, within thirty (30) days of executing the same. HOSPITAL shall hold such sublicense agreements and amendments in confidence. In the event HOSPITAL requires redacted information in the sublicense agreements for auditing purposes, upon HOSPITAL's request, COMPANY shall provide such

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information to HOSPITAL, which HOSPITAL shall hold in confidence. Upon termination of this AGREEMENT or any licenses granted hereunder for any reason, any sublicenses shall be addressed in accordance with Section 10.6.

2.3 Retained Rights; Requirements. Any and all licenses granted hereunder are subject to:

- (a) HOSPITAL's and HOSPITAL's AFFILIATES' right to make and to use the subject matter described and/or claimed in the PATENT RIGHTS and to permit others at academic, government and not-for-profit institutions to make and use the subject matter described and/or claimed in PATENT RIGHTS for research and educational purposes; and
- (b) for PATENT RIGHTS supported by federal funding, the rights, conditions and limitations imposed by U.S. law (see 35 U.S.C. § 202 et seq. and regulations pertaining thereto), including without limitation:
  - (i) the royalty-free non-exclusive license granted to the U.S. government; and
  - (ii) the requirement that any PRODUCTS used or sold in the United States shall be manufactured substantially in the United States, provided that, at the request of COMPANY, HOSPITAL shall use reasonable efforts to assist COMPANY in seeking a waiver of such requirement.

2.4 No Additional Rights. It is understood that nothing in this AGREEMENT shall be construed to grant COMPANY a license express or implied under any patent owned solely or jointly by HOSPITAL other than the PATENT RIGHTS expressly licensed hereunder.

### 3. DUE DILIGENCE OBLIGATIONS

3.1 Diligence Requirements. COMPANY shall itself use, or shall cause its AFFILIATES or SUBLICENSEES, as applicable, to use, reasonable commercial efforts to develop and make available to the public PRODUCTS and PROCESSES throughout the LICENSE TERRITORY. Such efforts shall include achieving the following objectives within the time periods designated below following the EFFECTIVE DATE:

- (a) Pre-Sales Requirements.
  - (i) within [\*\*\*].
  - (ii) within [\*\*\*].
  - (iii) within [\*\*\*].
  - (iv) within [\*\*\*], establish a management team, including but not limited to a full time (i) Chief Executive Officer or President, (ii) Chief Financial Officer, Controller or other financial officer, and (iii) Vice President of Research and Development.

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- (v) within [\*\*\*] for use with a PRODUCT or PROCESS, unless COMPANY determines that [\*\*\*].
- (vi) within [\*\*\*], which shall be made part of this Section 3 and shall be subject to the obligations contained in this Agreement.
- (b) Pre-sales Requirements for DIAGNOSTIC PRODUCTS and/or DIAGNOSTIC PROCESSES.
  - (i) within [\*\*\*].
  - (ii) within [\*\*\*] DIAGNOSTIC PRODUCT and/or DIAGNOSTIC PROCESS.
  - (iii) within [\*\*\*] DIAGNOSTIC PRODUCT and/or DIAGNOSTIC PROCESS.
  - (iv) within [\*\*\*] DIAGNOSTIC PRODUCT and/or DIAGNOSTIC PROCESS. [\*\*\*], which shall be made part of this Section 3 and shall be subject to the obligations contained in this Agreement.
  - (v) within [\*\*\*] DIAGNOSTIC PRODUCT and/or DIAGNOSTIC PROCESS [\*\*\*].

- (c) Post-Sales Requirements.
  - (i) Continued Sales.
    - (1) Following the first COMMERCIAL SALE of a DIAGNOSTIC PRODUCT or DIAGNOSTIC PROCESS, [\*\*\*], COMPANY shall itself or through its AFFILIATES and/or SUBLICENSEES use commercially reasonable efforts, to [\*\*\*] DIAGNOSTIC PRODUCTS and DIAGNOSTIC PROCESSES [\*\*\*].
    - (2) Following the first COMMERCIAL SALE of an INDUSTRIAL PRODUCT or INDUSTRIAL PROCESS, [\*\*\*], COMPANY shall itself or through its AFFILIATES and/or SUBLICENSEES use commercially reasonable efforts, to [\*\*\*] INDUSTRIAL PRODUCTS and INDUSTRIAL PROCESSES [\*\*\*].
    - (3) Following the first COMMERCIAL SALE of a RESEARCH PRODUCT or RESEARCH PROCESS, [\*\*\*], COMPANY shall itself or through its AFFILIATES and/or SUBLICENSEES use commercially reasonable efforts, to [\*\*\*].

Achievement of the foregoing objectives shall be deemed to satisfy COMPANY'S obligations to use commercially reasonable efforts under this Section 3.1.

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3.2 Diligence Failures. If COMPANY believes it is unable to achieve the foregoing despite commercially reasonable efforts to do so, or [\*\*\*], COMPANY must notify HOSPITAL and inform HOSPITAL in writing of the reasons that the foregoing will not be achieved or that [\*\*\*] at least [\*\*\*] in advance of the above milestone(s) being due (hereinafter "DILIGENCE DELAY NOTICE"). Such DILIGENCE DELAY NOTICE shall be accompanied with a [\*\*\*]. HOSPITAL shall [\*\*\*]. If HOSPITAL determines that COMPANY has failed to fulfill any of its obligations under Section 3.1, COMPANY and HOSPITAL shall meet promptly, but no less than [\*\*\*] after such milestone event was due, to discuss the matter and consider any request by COMPANY to remedy the failure. Neither party shall be obligated to agree to any such plan to remedy the failure. If no plan is agreed upon and entered into in writing, or if a plan is agreed upon and COMPANY fails to comply with the agreed plan, then HOSPITAL may treat such failure as a default and may terminate, in accordance with Section 10.4, this AGREEMENT and/or the licenses granted hereunder with respect to the specific PRODUCT type which COMPANY has failed to diligently [\*\*\*]. Notwithstanding the foregoing, in the event COMPANY does not provide the [\*\*\*] as provided under Sections 3.1(a)(vi) and 3.1(b)(iv) or fails to achieve their respective obligations in the amended Section 3, HOSPITAL shall have the right to terminate in accordance with Section 10.4 the licenses granted for the specific regions and/or PRODUCT and PROCESS types in default. The right to terminate as set forth herein shall be HOSPITAL's sole remedy in the event that COMPANY has failed to fulfill any of its obligations under Section 3.1.

3.3 Diligence Reports. COMPANY shall provide all reports with respect to its obligations under Section 3.1 as set forth in Article 5.

#### 4. PAYMENTS AND ROYALTIES

4.1 License Issue Fee. COMPANY shall pay HOSPITAL a non-refundable license issue fee in the sum of [\*\*\*] Dollars (\$[\*\*\*]) upon execution of this AGREEMENT.

4.2 Patent Cost Reimbursement. COMPANY shall reimburse HOSPITAL for all out of pocket costs associated with the preparation, filing, prosecution and maintenance of all PATENT RIGHTS ("PATENT COSTS"). As of the EFFECTIVE DATE, HOSPITAL has incurred approximately [\*\*\*] Dollars (\$[\*\*\*]) in PATENT COSTS, which amount COMPANY shall pay to HOSPITAL in two installments as follows: (i) [\*\*\*] Dollars (\$[\*\*\*]) shall be due upon execution of this AGREEMENT and (ii) [\*\*\*] Dollars (\$[\*\*\*]) shall be due on the earlier of [\*\*\*] after the EFFECTIVE DATE or when COMPANY has raised a total of [\*\*\*] Dollars (\$[\*\*\*]). COMPANY shall pay to HOSPITAL, or at HOSPITAL's request directly to patent counsel, all other PATENT COSTS within [\*\*\*] days of COMPANY's receipt of an invoice for such PATENT COSTS either from HOSPITAL or HOSPITAL's patent counsel. COMPANY agrees to indemnify, defend and hold HOSPITAL harmless from and against any and all liabilities, damages, costs and expenses arising from the failure of Company to timely pay such invoices and PATENT COSTS. HOSPITAL shall instruct patent counsel to provide copies to HOSPITAL for HOSPITAL's administrative files of all invoices detailing PATENT COSTS which are sent directly to COMPANY.

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4.3 Annual License Fee. COMPANY shall pay to HOSPITAL the following amounts as an annual license fee within [\*\*\*] days after [\*\*\*] in which each of the following anniversaries of the EFFECTIVE DATE occurs:

- (a) the [\*\*\*] of the EFFECTIVE DATE: [\*\*\*] Dollars (\$[\*\*\*]);
- (b) the [\*\*\*] of the EFFECTIVE DATE: [\*\*\*] Dollars (\$[\*\*\*]);
- (c) the [\*\*\*] of the EFFECTIVE DATE: [\*\*\*] Dollars (\$[\*\*\*]); and
- (d) the [\*\*\*] of the EFFECTIVE DATE thereafter: [\*\*\*] Dollars (\$[\*\*\*]).

The annual license fee is nonrefundable; provided however, it shall be credited against royalties subsequently due on NET SALES made during the [\*\*\*] REPORTING PERIODS following the REPORTING PERIOD in which the anniversary occurs, if any, but shall not be credited against royalties due on NET SALES made in any other year.

4.4 Milestone Payments. In addition to the payments set forth in Sections 4.1 through 4.3 above, COMPANY shall pay HOSPITAL milestone payments as follows:

- (a) [\*\*\*].

4.5 Royalties.

(a) In consideration of the licenses granted to COMPANY under this AGREEMENT and of the long development timeline for commercializing PRODUCTS and PROCESSES, COMPANY shall pay HOSPITAL certain compensation, including but not limited to certain deferred compensation, as follows.

(i) RESEARCH PRODUCTS and RESEARCH PROCESSES. Beginning with the first COMMERCIAL SALE of the first RESEARCH PRODUCT or RESEARCH PROCESS, COMPANY shall pay HOSPITAL a royalty on the NET SALES of all RESEARCH PRODUCTS and RESEARCH PROCESSES until the later of (1) the expiration or abandonment of the PATENT RIGHTS or (2) ten years from first COMMERCIAL SALE of the first RESEARCH PRODUCT or RESEARCH PROCESS as follows:

- (1) For any RESEARCH PRODUCT or RESEARCH PROCESS covered only by a CLAIM under the [\*\*\*] PATENT RIGHTS and not covered by a claim under the [\*\*\*] PATENT RIGHTS, a royalty of [\*\*\*].
- (2) For any RESEARCH PRODUCT or RESEARCH PROCESS covered only by a CLAIM under the [\*\*\*] PATENT RIGHTS and not covered by a claim under the [\*\*\*] PATENT RIGHTS, a royalty of [\*\*\*] of NET SALES of RESEARCH PRODUCTS or RESEARCH PROCESSES [\*\*\*] for a given calendar year.

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(3) For any RESEARCH PRODUCT or RESEARCH PROCESS covered by a CLAIM under the [\*\*\*] PATENT RIGHTS and a CLAIM under the [\*\*\*] PATENT RIGHTS, a royalty of [\*\*\*].

(ii) INDUSTRIAL PRODUCTS or INDUSTRIAL PROCESSES. Beginning with the first COMMERCIAL SALE of the first INDUSTRIAL PRODUCT or INDUSTRIAL PROCESS, COMPANY shall pay HOSPITAL a royalty on the NET SALES of all INDUSTRIAL PRODUCTS and INDUSTRIAL PROCESSES until the later of (1) the expiration or abandonment of the PATENT RIGHTS or (2) ten years from first COMMERCIAL SALE of the first INDUSTRIAL PRODUCT or INDUSTRIAL PROCESS as follows:

- (1) For any INDUSTRIAL PRODUCT or INDUSTRIAL PROCESS covered only by a CLAIM under the [\*\*\*] PATENT RIGHTS and not covered by a claim under the [\*\*\*] PATENT RIGHTS, a royalty of [\*\*\*].
- (2) For any INDUSTRIAL PRODUCT or INDUSTRIAL PROCESS covered only by a CLAIM under the [\*\*\*] PATENT RIGHTS and not covered by a claim under the [\*\*\*] PATENT RIGHTS, a royalty of [\*\*\*] of NET SALES of INDUSTRIAL PRODUCTS or INDUSTRIAL PROCESSES [\*\*\*] for a given calendar year.
- (3) For any INDUSTRIAL PRODUCT or INDUSTRIAL PROCESS covered by a CLAIM under the [\*\*\*] PATENT RIGHTS and a CLAIM under the [\*\*\*] PATENT RIGHTS, a royalty of [\*\*\*].

(iii) DIAGNOSTIC PRODUCTS or DIAGNOSTIC PROCESSES. Beginning with the first COMMERCIAL SALE of the first DIAGNOSTIC PRODUCT or DIAGNOSTIC PROCESS, COMPANY shall pay HOSPITAL a royalty on the NET SALES of all DIAGNOSTIC PRODUCT or DIAGNOSTIC PROCESS until the later of (1) the expiration or abandonment of the PATENT RIGHTS or (2) ten years from first COMMERCIAL SALE of the first DIAGNOSTIC PRODUCT or DIAGNOSTIC PROCESS as follows:

- (1) For any DIAGNOSTIC PRODUCT or DIAGNOSTIC PROCESS covered only by a CLAIM under the [\*\*\*] PATENT RIGHTS and not covered by a claim under the [\*\*\*] PATENT RIGHTS, a royalty of [\*\*\*].
- (2) For any DIAGNOSTIC PRODUCT or DIAGNOSTIC PROCESS covered only by a CLAIM under the [\*\*\*] PATENT RIGHTS and not covered by a claim under the [\*\*\*] PATENT RIGHTS, a royalty of [\*\*\*] of NET SALES of DIAGNOSTIC PRODUCTS or DIAGNOSTIC PROCESSES [\*\*\*] for a given calendar year.
- (3) For any DIAGNOSTIC PRODUCT or DIAGNOSTIC PROCESS covered by a CLAIM under the [\*\*\*] PATENT RIGHTS, a royalty of [\*\*\*].

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(b) Royalty Stacking.

(i) [\*\*\*] PATENT RIGHTS. In the event that COMPANY is required to make [\*\*\*] payments to one or more third parties in order to practice the [\*\*\*] PATENT RIGHTS for any PRODUCT or PROCESS covered only by a CLAIM under the [\*\*\*] PATENT RIGHTS and not covered by a claim under the [\*\*\*] PATENT RIGHTS, COMPANY shall [\*\*\*].

(ii) [\*\*\*] PATENT RIGHTS. In the event that COMPANY is required to make [\*\*\*] payments to one or more third parties in order to practice the [\*\*\*] PATENT RIGHTS for any PRODUCT or PROCESS covered only by a CLAIM under the [\*\*\*] PATENT RIGHTS and not covered by a claim under the [\*\*\*] PATENT RIGHTS, COMPANY may offset a total of [\*\*\*] of such third party [\*\*\*] payments against any [\*\*\*] payments that are due under Section 4.5(a) to HOSPITAL [\*\*\*], provided that in no event shall the royalty payments in a REPORTING PERIOD under Section 4.5(a), when aggregated with any other offsets and credits allowed under this AGREEMENT, be reduced by more than [\*\*\*] with respect to royalties due to HOSPITAL on PRODUCTS at a rate of [\*\*\*] or more than [\*\*\*] with respect to royalties due to HOSPITAL on PRODUCT at a rate of [\*\*\*].

(iii) [\*\*\*] and [\*\*\*] PATENT RIGHTS. In the event that COMPANY is required to make [\*\*\*] payments to one or more third parties in order to practice the PATENT RIGHTS for any PRODUCT or PROCESS covered by a CLAIM under the [\*\*\*] PATENT RIGHTS, COMPANY may offset [\*\*\*] of such third party [\*\*\*] payments that are due under Section 4.5(a) to HOSPITAL [\*\*\*], provided that in no event shall the royalty in a REPORTING PERIOD under Section 4.5(a), when aggregated with any other offsets and credits allowed under this AGREEMENT, be less than [\*\*\*] of NET SALES of such PRODUCT or PROCESS.

(c) All payments due to HOSPITAL under this Section 4.5 shall be due and payable by COMPANY within [\*\*\*] after the end of each REPORTING PERIOD, and shall be accompanied by a report as set forth in Article 5.4.

4.6 Non-Royalty Sublicensing Income. COMPANY shall pay HOSPITAL within thirty (30) days of receipt thereof a percentage of any and all non-royalty income paid to COMPANY or an AFFILIATE in consideration for the sublicensing of any license granted hereunder, including but not limited to [\*\*\*] (“NON-ROYALTY INCOME PERCENTAGE”). Said NON-ROYALTY INCOME PERCENTAGE shall depend upon the time at which COMPANY or an AFFILIATE executes the agreement with a third party providing for such non-royalty income (“THIRD PARTY AGREEMENT”) as follows.

In the event the THIRD PARTY AGREEMENT is executed:

(a) upon or less than [\*\*\*] from the EFFECTIVE DATE, the NON-ROYALTY INCOME PERCENTAGE shall be [\*\*\*];

[\*\*\*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

(b) more than [\*\*\*] from the EFFECTIVE DATE, but upon or less than [\*\*\*] from the EFFECTIVE DATE, the NON-ROYALTY INCOME PERCENTAGE shall be [\*\*\*]; or

(c) more than [\*\*\*] from the EFFECTIVE DATE, the NON-ROYALTY INCOME PERCENTAGE shall be [\*\*\*].

4.7 Form of Payment. All payments due under this AGREEMENT shall be drawn on a United States bank and shall be payable in United States dollars. Each payment shall reference this AGREEMENT and identify the obligation under this AGREEMENT that the payment satisfies. Conversion of foreign currency to U.S. dollars shall be made at the conversion rate existing in the United States for the purchase of U.S. Dollars with the applicable currency, as reported in The Wall Street Journal, on the last working day of the applicable REPORTING PERIOD. Such payments shall be without deduction of exchange, collection or other charges, and, specifically, without deduction of withholding or similar taxes or other government imposed fees or taxes, except as permitted in the definition of NET SALES. Checks for all payments due to the HOSPITAL under this AGREEMENT shall be made payable to HOSPITAL and addressed as set forth in Section 12.2. Payments via wire transfer should be made as follows:

ABA #01 1000390  
Account #512-79004  
GHC Director's Master Account  
Bank of America  
100 Federal Street  
Boston, MA 02110

4.8 Overdue Payments. The payments due under this AGREEMENT shall, if overdue, bear interest beginning on the first day following the REPORTING PERIOD to which such payment was incurred and until payment thereof at a per annum rate equal to [\*\*\*] in effect on the due date as reported by The Wall Street Journal, such interest rate being compounded on the last day of each REPORTING PERIOD, not to exceed the maximum permitted by law. Any such overdue payments when made shall be accompanied by all interest so accrued. Said interest and the payment and acceptance thereof shall not preclude HOSPITAL from exercising any other rights it may have as a consequence of the lateness of any payment.

4.9 Equity. Upon execution of this AGREEMENT, and in additional consideration for the licenses granted hereunder, COMPANY shall issue to HOSPITAL (or its nominee) equity as follows.

(a) Initial Grant.

(i) COMPANY shall issue a total of [\*\*\*], \$.001 par value per share (the “SHARES”), in the name of HOSPITAL [\*\*\*], and [\*\*\*].

(ii) COMPANY represents to HOSPITAL that, as of the EFFECTIVE DATE, the aggregate number of Shares equals [\*\*\*] of COMPANY's issued and outstanding Common Stock calculated on a [\*\*\*]. For purposes of this Section, [\*\*\*] shall mean that the total number of issued and outstanding shares of the COMPANY's Common Stock shall be [\*\*\*], and shall assume the [\*\*\*].

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(b) Anti-Dilution Protection. COMPANY shall issue additional shares of Common Stock to HOSPITAL and each HOSPITAL Holder pro rata, [\*\*\*], as calculated after giving effect to [\*\*\*]. Such issuances shall continue until and including (i) the date upon which [\*\*\*], or (ii) the issuance [\*\*\*] as a result of which a cumulative total of [\*\*\*] shall be received by COMPANY. For clarity if the [\*\*\*] results in [\*\*\*] being received by the COMPANY, only [\*\*\*] shall be subject to this section. Thereafter, [\*\*\*] pursuant to this section.

(c) Participation in Future Equity Offerings. After the date of the [\*\*\*] shall have the right to purchase additional shares of COMPANY's capital stock in any private offering by the COMPANY of its equity securities in exchange for cash, [\*\*\*], which purchase shall be pursuant to the terms and conditions at least as favorable as those granted to the other offerees. All rights granted to HOSPITAL and HOSPITAL HOLDERS pursuant to this Section 4.9(c) shall (i) be subject to the same exceptions, limitations and termination conditions as are applicable to other participants in the offering and (ii) terminate immediately prior to a firm commitment underwritten public offering of the COMPANY's common stock. For the purpose of this Section 4.9(c), the term HOSPITAL shall include HOSPITAL AFFILIATES.

(d) [\*\*\*]. With respect to shares issued pursuant to Section 4.9(a) and (b), HOSPITAL, HOSPITAL AFFILIATES (if applicable), and HOSPITAL HOLDERS shall be entitled to [\*\*\*] on such terms and conditions as are applicable to the rights granted to [\*\*\*]. For shares issued pursuant to Section 4.9(c), [\*\*\*] shall be governed by Section 4.9(c).

(e) Joinder in Agreement. At the request of COMPANY, HOSPITAL and HOSPITAL AFFILIATES (if applicable), and HOSPITAL HOLDERS may join in any agreement(s) acceptable to HOSPITAL and/or HOSPITAL AFFILIATES between COMPANY and the investors stock issuance covering the rights set forth in Sections 4.9(c) and 4.9(d). Upon the execution of such agreement(s), such agreement(s) shall govern such rights and sections 4.9(c) and 4.9(d) shall cease to be applicable.

## 5. REPORTS AND RECORDS

5.1 Diligence Reports. Within sixty (60) days after the end of each calendar year, COMPANY shall report in writing to HOSPITAL on progress made toward the objectives set forth in Section 3.1 during such preceding 12 month period, including, without limitation, progress on research and development, status of applications for regulatory approvals, manufacturing, sublicensing and the number of sublicenses entered into and marketing.

5.2 Milestone Achievement Notification. COMPANY shall report to HOSPITAL the dates on which it achieves the milestones set forth in Section 4.4 within sixty (60) days of each such occurrence.

5.3 Non-Royalty Sublicensing Income Reports. COMPANY shall, along with delivering payment as set forth in Section 4.6, report to HOSPITAL within thirty (30) days of receipt the amount of all non-royalty sublicensing income received by COMPANY, and COMPANY'S calculation of the amount due and paid to HOSPITAL from such income, including an itemized listing of the source of income comprising such consideration, and the name and address of each entity making such payments.

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5.4 COMMERCIAL SALES Reports. COMPANY shall report to HOSPITAL the date on which it achieves the first COMMERCIAL SALE in each country of the LICENSE TERRITORY within thirty (30) days of each such occurrence. Following the first COMMERCIAL SALE, COMPANY shall deliver reports to HOSPITAL within thirty (30) days after the end of each REPORTING PERIOD. Each report under this Section 5.4 shall have substantially the format outlined in Appendix A, shall be certified as correct on behalf of COMPANY by an officer of COMPANY and shall contain at least the following information as may be pertinent to a royalty accounting hereunder for the immediately preceding REPORTING PERIOD:

- (a) the number of PRODUCTS and PROCESSES TRANSFERRED by COMPANY, its AFFILIATES and SUBLICENSEES by continent;
- (b) the gross amount billed, due and paid by COMPANY, its AFFILIATES and SUBLICENSEES for each PRODUCT and PROCESS by continent;
- (c) calculation of NET SALES for the applicable REPORTING PERIOD each continent, including an itemized listing of offsets and permitted deductions;
- (d) total royalties payable on NET SALES in U.S. dollars, together with the exchange rates used for conversion; and
- (e) any other payments due to HOSPITAL under this AGREEMENT.

If no amounts are due to HOSPITAL for any REPORTING PERIOD, the report shall so state.

5.5 Audit Rights. COMPANY shall maintain, and shall cause each of its AFFILIATES and SUBLICENSEES to maintain, complete and accurate records relating to the rights and obligations under this AGREEMENT and any amounts payable to HOSPITAL in relation to this AGREEMENT, which records shall contain sufficient information to permit HOSPITAL and its representatives to confirm the accuracy of any payments and reports delivered to HOSPITAL and compliance in all other respects with this AGREEMENT. COMPANY shall retain and make available, and shall cause each of its AFFILIATES and SUBLICENSEES to retain and make available, such records for at least \*\*\* following the end of the calendar year to which they pertain, to independent certified public accountants designated by HOSPITAL and acceptable to COMPANY or the relevant AFFILIATE or SUBLICENSEE in its reasonable judgment, or to representatives of the HOSPITAL who are certified public accountants at HOSPITAL'S expense and upon at least fifteen (15) days' advance written notice, for inspection during normal business hours, to verify any reports and payments made and/or compliance in other respects under this AGREEMENT. The accountants shall present a draft of their report to COMPANY prior to delivery to HOSPITAL and shall consider in good faith any proposed modifications or corrections proposed by COMPANY in rendering their final report. If the final report of any examination conducted by the independent certified public accountants pursuant to the provisions of this Section shows an underreporting or underpayment of five percent (5%) or more in any payment due to HOSPITAL hereunder, COMPANY shall bear the full cost of such audit and shall remit any amounts due to HOSPITAL (including interest due in accordance with Section 4.8) within thirty (30) days of receiving notice thereof from HOSPITAL, provided that if

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the audit was conducted by a representative of the HOSPITAL, and such report is contested in good faith by COMPANY, payment will be made with five (5) days after the matter is resolved. Unless the parties otherwise agree, the matter will be resolved by independent certified public accountants designed by HOSPITAL and acceptable to COMPANY or the relevant Affiliate or SUBLICENSEE in its reasonable judgment.

5.6 Information Rights. For the longer of (i) three (3) years from the EFFECTIVE DATE or (ii) such time as COMPANY has raised a total of Fifteen Million Dollars (\$15,000,000), HOSPITAL shall have the right to receive full information rights and materials as available to the Board of Directors and a right to meet with COMPANY'S CEO semi-annually to receive an update on development of PRODUCTS AND PROCESSES.

5.7 HOSPITAL'S Notice of New Inventions. Unless prevented by obligations to other third parties or sponsors of research including the United States Government, HOSPITAL will exercise reasonable efforts to provide COMPANY, in confidence, notification of any additional inventions on which \*\*\* are inventors which (i) are \*\*\* and (ii) are disclosed to HOSPITAL'S Office of Corporate Sponsored Research and Licensing within \*\*\* of the EFFECTIVE DATE. HOSPITAL will provide COMPANY the opportunity to request a license to such inventions. HOSPITAL will \*\*\*.

## 6. PATENT PROSECUTION AND MAINTENANCE

6.1 Prosecution. HOSPITAL shall be responsible for the preparation, filing, prosecution and maintenance of all patent applications and patents included in PATENT RIGHTS. COMPANY shall reimburse HOSPITAL for PATENT COSTS incurred by HOSPITAL relating thereto in accordance with Section 4.2.

6.2 Copies of Documents. With respect to any PATENT RIGHT, HOSPITAL shall instruct the patent counsel prosecuting such PATENT RIGHT to copy COMPANY on patent prosecution documents that are received from or filed with the United States Patent and Trademark Office sufficiently in advance of any required date to allow COMPANY to comment thereon. HOSPITAL shall consider in good faith all comments from COMPANY, but HOSPITAL shall have no obligation to act on such comments.

6.3 COMPANY'S Election Not to Proceed. COMPANY may elect to surrender its license to any patent or patent application in PATENT RIGHTS in any country upon sixty (60) days advance written notice to HOSPITAL. Such notice shall relieve COMPANY from the obligation to pay for future PATENT COSTS but shall not relieve COMPANY from responsibility to pay PATENT COSTS incurred prior to the expiration of the sixty (60) day notice period. Such U.S. or foreign patent application or patent shall thereupon cease to be a PATENT RIGHT hereunder, COMPANY shall have no further rights therein and HOSPITAL shall be free to license its rights to that particular U.S. or foreign patent application or patent to any other party on any terms.

## 7. INFRINGEMENT

7.1 HOSPITAL Right to Prosecute. HOSPITAL will protect its PATENT RIGHTS from infringement and prosecute infringers when, in its sole judgment, such action may be reasonably necessary, proper and justified. If COMPANY shall have supplied HOSPITAL with written

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evidence demonstrating to HOSPITAL's reasonable satisfaction prima facie infringement of a claim of a PATENT RIGHT by a third party which poses a material threat to COMPANY'S rights under this AGREEMENT, COMPANY may by notice request HOSPITAL to take steps to protect the PATENT RIGHT. HOSPITAL shall notify COMPANY within sixty (60) days of the receipt of such notice whether HOSPITAL intends to prosecute the alleged infringement. If HOSPITAL notifies COMPANY that it intends to so prosecute, HOSPITAL shall, within three (3) months of its notice to COMPANY either (i) cause such infringement to terminate, or (ii) initiate legal proceedings against the infringer.

7.2 COMPANY Right to Prosecute. In the event HOSPITAL (i) notifies COMPANY that HOSPITAL does not intend to prosecute infringement identified under Section 7.1, (ii) does not respond to a notice from COMPANY under Section 7.1 within sixty (60) days, or (iii) does not cause said infringement to terminate or initiate legal procedures against the infringer within three (3) months of giving notice to COMPANY under Section 7.1, COMPANY may, upon notice to HOSPITAL, initiate legal proceedings against the infringer at COMPANY's expense. Before commencing such action, COMPANY and, as applicable, any AFFILIATE, shall consult with HOSPITAL and shall give careful consideration to the views of HOSPITAL regarding the advisability of the proposed action and its potential effects on the public interest. COMPANY shall indemnify and hold HOSPITAL harmless from all costs, expenses and liabilities that HOSPITAL incurs in connection with such action, regardless of whether HOSPITAL is a party-plaintiff, except for the expense of any independent counsel retained by HOSPITAL in accordance with Section 7.5 below.

7.3 Assignment of PATENT RIGHT. If COMPANY elects to commence an action as described in Section 7.2 above, HOSPITAL shall have, in its sole discretion, the option to permit such action to be brought in its name and to be joined as a party-plaintiff if so required by law, or to assign to COMPANY all of HOSPITAL's right, title and interest in and to the PATENT RIGHT which is the subject of such action (subject to all of HOSPITAL's obligations to the government under law and any other rights that others may have in such PATENT RIGHT). If HOSPITAL makes such an assignment, such assignment shall be irrevocable, and such action by COMPANY shall thereafter be brought or continued without HOSPITAL as a party, if HOSPITAL is no longer an indispensable party; provided, however, that COMPANY shall continue to meet all of its obligations under this AGREEMENT as if the assigned PATENT RIGHT were still licensed to COMPANY.

7.4 Settlement. COMPANY shall not enter into any settlement, consent judgment or other voluntary final disposition of any infringement action without the prior written consent of HOSPITAL.

7.5 Cooperation. Each PARTY agrees to cooperate reasonably in any action under this Article 7 which is controlled by the other PARTY, provided that the controlling party reimburses the cooperating party for any costs and expenses incurred by the cooperating party in connection with providing such assistance, except for the expense of any independent counsel retained by HOSPITAL in accordance with this Section 7.5. Such controlling party shall keep the cooperating party informed of the progress of such proceedings and shall make its counsel available to the cooperating party. The cooperating party shall also be entitled to independent

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counsel in such proceedings but at its own expense, said expense to be offset against any damages received by the PARTY bringing suit in accordance with Section 7.6.

7.6 Recovery. Any award paid by third parties as the result of such proceedings (whether by way of settlement or otherwise) shall first be applied to reimbursement of the unreimbursed third party legal fees and expenses incurred by either PARTY and then the remainder shall be divided between the PARTIES as follows:

- (a) (i) if the amount is based on lost profits, COMPANY shall receive an amount equal to the damages the court determines COMPANY has suffered as a result of the infringement less the amount of any royalties and other payments that would have been due HOSPITAL on TRANSFERS of PRODUCT and PROCESSES lost by COMPANY and any other lost opportunities, as a result of the infringement; and
- (ii) HOSPITAL shall receive an amount equal to the royalties and other payments it would have received if such TRANSFERS had been made and such other opportunities captured by COMPANY; and
- (b) awards other than those based on lost profits shall be shared by the parties as follows: [\*\*\*] to the party bringing the suit and [\*\*\*] to the other party.

## 8. INDEMNIFICATION AND INSURANCE

### 8.1 Indemnification.

(a) COMPANY shall indemnify, defend and hold harmless HOSPITAL and its AFFILIATES and their respective trustees, directors, officers, medical and professional staff, employees, and agents and their respective successors, heirs and assigns (the "INDEMNITEES"), against any liability, damage, loss or expense (including reasonable attorney's fees 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) COMPANY agrees, at its own expense, to provide attorneys reasonably acceptable to the HOSPITAL 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; provided, however, that any INDEMNITEE shall have the right to retain its own counsel, at the expense of COMPANY, if representation of such INDEMNITEE by counsel retained by COMPANY would be inappropriate because of actual or potential differences in the interests of such INDEMNITEE and any other party represented by such counsel. COMPANY agrees to keep HOSPITAL informed of the progress in the defense and disposition of such claim and to consult with HOSPITAL prior to any proposed settlement.

(c) This section 8.1 shall survive expiration or termination of this AGREEMENT.

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### 8.2 Insurance.

(a) Beginning at such time as any such product, process or service is being commercially distributed, sold, leased or otherwise transferred, or performed or used (other than for the purpose of obtaining regulatory approvals), by COMPANY, an AFFILIATE or SUBLICENSEE, COMPANY 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 as additional insureds. Such commercial general liability insurance shall provide (i) product liability coverage and (ii) broad form contractual liability coverage for COMPANY's indemnification under Section 8.1 of this AGREEMENT. If COMPANY 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 the HOSPITAL and the Risk Management Foundation. The minimum amounts of insurance coverage required under this Section 8.2 shall not be construed to create a limit of COMPANY's liability with respect to its indemnification under Section 8.1 of this AGREEMENT.

(b) COMPANY shall provide HOSPITAL with written evidence of such insurance upon request of HOSPITAL. COMPANY shall provide HOSPITAL with written notice at least fifteen (15) days prior to the cancellation, non-renewal or material change in such insurance; if COMPANY does not obtain replacement insurance providing comparable coverage prior to the expiration of such fifteen (15) day period, HOSPITAL shall have the right to terminate this AGREEMENT effective at the end of such fifteen (15) day period without notice or any additional waiting periods.

(c) COMPANY shall maintain such commercial general liability insurance beyond the expiration or termination of this AGREEMENT during (i) the period that any such product, process, or service is being commercially distributed, sold, leased or otherwise transferred, or performed or used (other than for the purpose of obtaining regulatory approvals), by COMPANY or by a licensee, affiliate or agent of COMPANY and (ii) a reasonable period after the period referred to in (c) (i) above which in no event shall be less than fifteen (15) years.

(d) This section 8.2 shall survive expiration or termination of this AGREEMENT.

## 9. WARRANTIES AND DISCLAIMER

9.1 Title to PATENT RIGHTS. To the best knowledge of HOSPITAL's Office of Corporate Sponsored Research and Licensing, HOSPITAL is the owner by assignment of the PATENT RIGHTS and has the authority to enter into this agreement and license the PATENT RIGHTS to COMPANY hereunder.

9.2 No Warranties. EXCEPT AS MAY BE EXPRESSLY SET FORTH HEREIN, HOSPITAL MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND CONCERNING THE PATENT RIGHTS AND THE RIGHTS GRANTED HEREUNDER, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, NON-INFRINGEMENT, VALIDITY OF PATENT RIGHTS CLAIMS, WHETHER ISSUED OR PENDING, AND THE ABSENCE OF

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LATENT OR OTHER DEFECTS, WHETHER OR NOT DISCOVERABLE, AND HEREBY DISCLAIMS THE SAME. SPECIFICALLY, AND NOT TO LIMIT THE FOREGOING, HOSPITAL MAKES NO WARRANTY OR REPRESENTATION (i) REGARDING THE VALIDITY OR SCOPE OF ANY OF THE CLAIM(S), WHETHER ISSUED OR PENDING, OF ANY OF THE PATENT RIGHTS, AND (ii) THAT THE EXPLOITATION OF THE PATENT RIGHTS OR ANY PRODUCT WILL NOT INFRINGE ANY PATENTS OR OTHER INTELLECTUAL PROPERTY RIGHTS OF HOSPITAL OR OF ANY THIRD PARTY.

9.3 Disclaimer. IN NO EVENT SHALL HOSPITAL OR ANY OF ITS AFFILIATES OR ANY OF THEIR RESPECTIVE TRUSTEES, DIRECTORS, OFFICERS, MEDICAL AND PROFESSIONAL STAFF, EMPLOYEES AND AGENTS BE LIABLE TO LICENSEE OR ANY OF ITS AFFILIATES, SUBLICENSEES OR DISTRIBUTORS FOR INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND ARISING IN ANY WAY OUT OF THIS AGREEMENT OR THE LICENSE RIGHTS GRANTED HEREUNDER, HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, INCLUDING WITHOUT LIMITATION ECONOMIC DAMAGES OR INJURY TO PROPERTY OR LOST PROFITS, REGARDLESS OF WHETHER HOSPITAL SHALL BE ADVISED, SHALL HAVE OTHER REASON TO KNOW, OR IN FACT SHALL KNOW OF THE POSSIBILITY OF THE FOREGOING.

## 10. TERM AND TERMINATION

10.1 Term. The term of this AGREEMENT shall commence on the EFFECTIVE DATE and shall remain in effect until the later of (i) the date on which all issued patents and filed patent applications within the PATENT RIGHTS have expired or been abandoned or (ii) all COMPANY obligations herein have expired, including but not limited to obligations under Sections 4.5(a), unless this AGREEMENT is terminated earlier in accordance with the provisions of this Article 10.

10.2 Termination for Failure to Pay. If COMPANY fails to make any payment due hereunder, HOSPITAL shall have the right to terminate this AGREEMENT upon fifteen (15) business days written notice, unless COMPANY makes such payments plus any interest due, as set forth in Section 4.8, within said twenty (20) day notice period. If payments are not made, HOSPITAL may immediately terminate this AGREEMENT at the end of said fifteen (15) day period.

10.3 Termination for Insurance and Insolvency. HOSPITAL shall terminate this AGREEMENT immediately upon written notice with no further notice obligation or opportunity to cure if COMPANY fails to maintain the insurance required by Section 8.2 or if COMPANY, shall make an assignment for the benefit of creditors, or COMPANY shall file a petition in bankruptcy, provided that in any case in which a bankruptcy is filed against COMPANY, COMPANY shall have ninety (90) days in which to have the action dismissed and HOSPITAL shall not be permitted to terminate this Agreement in the event COMPANY causes such proceeding to be dismissed within such time period.

10.4 Termination for Non-Financial Default. If COMPANY, its AFFILIATES or SUBLICENSEES shall default in the performance of any of its obligations under this AGREEMENT, including but not limited to its obligations under Section 3.1(b)(i) or 3.1(b)(ii),

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and if such default has not been cured within sixty (60) days after notice by HOSPITAL in writing of such default, HOSPITAL may immediately terminate any licenses granted hereunder with respect to the country or countries in which such default has occurred at the end of said sixty (60) day cure period.

10.5 Termination by Company. COMPANY shall have the right to terminate this AGREEMENT by giving ninety (90) days advance written notice to HOSPITAL and upon such termination shall immediately cease all use and TRANSFER of PRODUCTS and PROCESSES.

10.6 Effect of Termination on Sublicenses. Any sublicenses granted by COMPANY or a SUBLICENSEE (to a sub-sublicensee) under this AGREEMENT shall provide for assignment to HOSPITAL of COMPANY's or the granting SUBLICENSEE's interest therein, upon termination of this AGREEMENT or upon termination of any license hereunder under which such sublicense has been granted, provided that the SUBLICENSEE under the sublicense is not in default thereunder. Such assignment shall impose no obligations on HOSPITAL other than the continuation of the sublicense under PATENT RIGHTS granted to the SUBLICENSEE and may be conditioned on the execution of an amendment to such sublicense as HOSPITAL determines in its sole discretion is necessary to make such sublicense consistent with the terms of this AGREEMENT, as required by Section 2.2 hereof. In the event that such necessary amendment, as determined by HOSPITAL, is not executed by the SUBLICENSEE, HOSPITAL shall be under no obligation to accept assignment of such sublicense and such sublicense and any rights granted therein under this Agreement, shall thereafter automatically terminate.

10.7 Effects of Termination of AGREEMENT. Upon termination of this AGREEMENT or any of the licenses hereunder for any reason, final reports in accordance with Article 5 shall be submitted to HOSPITAL and all royalties and other payments, including without limitation any unreimbursed PATENT COSTS, accrued or due to HOSPITAL as of the termination date shall become immediately payable. COMPANY shall cease, and shall cause its AFFILIATES and SUBLICENSEES under any terminated sublicense to cease under any sublicense granted by COMPANY, all TRANSFERS and uses of PRODUCTS and PROCESSES upon such termination. The termination or expiration of this AGREEMENT or any licenses granted hereunder shall not relieve COMPANY, its AFFILIATES or SUBLICENSEES of obligations arising before such termination or expiration.

## 11. COMPLIANCE WITH LAW

11.1 Compliance. COMPANY shall have the sole obligation for compliance with, and shall ensure that any AFFILIATES and SUBLICENSEES comply with, all government statutes and regulations that relate to PRODUCTS and PROCESSES, including, but not limited to, FDA statutes and regulations and the Export Administration Act of 1997, as amended, and the regulations promulgated thereunder, and any applicable similar laws and regulations of any other country in the LICENSE TERRITORY.

11.2 Patent Numbers. COMPANY shall cause all PRODUCTS sold in the United States to be marked with all applicable U.S. Patent Numbers, to the full extent required by United States law. COMPANY shall similarly cause all PRODUCTS shipped to or sold in any other country to be marked in such a manner as to conform with the patent laws and practices of such country.

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## 12. MISCELLANEOUS

12.1 Entire Agreement. This AGREEMENT constitutes the entire understanding between the PARTIES with respect to the subject matter hereof.

12.2 Notices. Any written notices, reports, waivers, correspondences or other communications required under or pertaining to this AGREEMENT, and including all payments required hereunder, shall be given by prepaid registered or certified mail or by an express/overnight delivery service provided by a commercial carrier providing evidence of delivery, properly addressed to the other PARTY, which for HOSPITAL shall be as follows:

**For MGH**

Director, Corporate Sponsored Research and Licensing  
Massachusetts General Hospital  
Building 149, 13<sup>th</sup> Street, Suite 5036  
Charlestown, MA 02129

**For Company**

Bioplex Systems, Inc.  
c/o Flagship Ventures  
One Memorial Drive  
Cambridge, MA 02142  
Attention: President

Notices and payments shall be considered timely if such notices are received on or before the established deadline date or sent on or before the deadline date as verifiable by legibly dated U.S. Postal Service postmark or dated receipt from a commercial carrier.

12.3 Amendment; Waiver. This AGREEMENT may be amended and any of its terms or conditions may be waived only by a written instrument executed by an authorized signatory of the PARTIES or, in the case of a waiver, by the PARTY waiving compliance. The failure of either PARTY at any time or times to require performance of any provision hereof shall in no manner affect its rights at a later time to enforce the same. No waiver by either PARTY of any condition or term shall be deemed as a further or continuing waiver of such condition or term or of any other condition or term.

12.4 Binding Effect. This AGREEMENT shall be binding upon and inure to the benefit of and be enforceable by the PARTIES hereto and their respective permitted successors and assigns.

12.5 Assignment. Except as set forth in this Section 12.5, COMPANY shall not assign any of its rights or obligations under this AGREEMENT without the prior written consent of HOSPITAL. Provided COMPANY is not in breach of its diligence obligations as set forth in Article 3, no such consent will be required to assign this AGREEMENT to a successor by merger or consolidation of the COMPANY's business to which this AGREEMENT pertains or to a purchaser of substantially all of the COMPANY's assets related to this AGREEMENT, so long as such successor or purchaser shall agree in writing to be bound by the terms and conditions hereof prior to such assignment, including without limitation the diligence obligations

[\*\*\*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

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set forth in Article 3. COMPANY shall notify HOSPITAL in writing of any such assignment and provide a copy of all assignment documents and related agreements to HOSPITAL within thirty (30) days of such assignment. Failure of an assignee to agree to be bound by the terms hereof or failure of COMPANY to notify hospital and provide copies of assignment documentation shall be grounds for termination of this AGREEMENT for default.

12.6 Force Majeure. Neither PARTY shall be responsible for delays resulting from causes beyond the reasonable control of such PARTY, including without limitation fire, explosion, flood, war, sabotage, strike or riot, provided that the nonperforming PARTY uses commercially reasonable efforts to avoid or remove such causes of nonperformance and continues performance under this AGREEMENT with reasonable dispatch whenever such causes are removed.

12.7 Use of Name. Neither PARTY shall use the name of the other PARTY or of any trustee, director, officer, staff member, employee, student or agent of the other PARTY or any adaptation thereof in any advertising, promotional or sales literature, publicity or in any document employed to obtain funds or financing without the prior written approval of the PARTY or individual whose name is to be used. For HOSPITAL, such approval shall be obtained from HOSPITAL's Chief Public Affairs Officer.

12.8 Governing Law. This AGREEMENT shall be governed by and construed and interpreted in accordance with the laws of the Commonwealth of Massachusetts, except that questions affecting the construction and effect of any patent shall be determined by the law of the country in which the patent shall have been granted. Each PARTY agrees to submit to the exclusive jurisdiction of the Superior Court for Suffolk County, Massachusetts, and the United States District Court for the District of Massachusetts with respect to any claim, suit or action in law or equity arising in any way out of this AGREEMENT or the subject matter hereof.

12.9 Hospital Policies. COMPANY acknowledges that HOSPITAL's employees and medical and professional staff members and the employees and staff members of HOSPITAL's AFFILIATES are subject to the applicable policies of HOSPITAL and such AFFILIATES, including, without limitation, policies regarding conflicts of interest, intellectual property and other matters. COMPANY shall provide HOSPITAL with any written agreement it proposes to enter into with any employee or staff member of HOSPITAL or any of HOSPITAL's AFFILIATES for HOSPITAL's prior review and shall not enter into any written or oral agreement with such employee or staff member which conflicts with any such policy. HOSPITAL shall provide COMPANY, at COMPANY's request, with copies of any such policies applicable to any such employee or staff member.

12.10 Severability. If any provision(s) of this AGREEMENT are or become invalid, are ruled illegal by any court of competent jurisdiction or are deemed unenforceable under then current applicable law from time to time in effect during the term hereof, it is the intention of the parties that the remainder of this agreement shall not be effected thereby. It is further the intention of the parties that in lieu of each such provision which is invalid, illegal or unenforceable, there be substituted or added as part of this AGREEMENT a provision which shall be as similar as possible in economic and business objectives as intended by the parties to such invalid, illegal or enforceable provision, but shall be valid, legal and enforceable.

[\*\*\*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

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12.11 Survival. In addition to any specific survival references in this AGREEMENT, Sections 1, 2.4, 5.5, 8.1, 8.2, 9.2, 9.3, 10.6, 10.7, 12.2, 12.7, 12.8, 12.9, 12.10, 12.11, 12.12 and 12.13 shall survive termination or expiration of this AGREEMENT.

12.12 Interpretation. The parties hereto are sophisticated, have had the opportunity to consult legal counsel with respect to this transaction and hereby waive any presumptions of any statutory or common law rule relating to the interpretation of contracts against the drafter.

12.13 Headings. All headings are for convenience only and shall not affect the meaning of any provision of this AGREEMENT.

[Remainder of page intentionally left blank.]

[\*\*\*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

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IN WITNESS WHEREOF, the PARTIES have caused this AGREEMENT to be executed by their duly authorized representatives as of the date first written above.

**BIOPLEX SYSTEMS, INC.**

**THE GENERAL HOSPITAL CORPORATION**

By: /s/ ILLEGIBLE  
Name:

By: /s/ Frances Toneguzzo  
Name: Frances Toneguzzo

TITLE: CEO, Bioplex Systems

TITLE: Director, CSRL

\*\*\* Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

**First Amendment  
to the License Agreement between  
THE GENERAL HOSPITAL CORPORATION and T2 BIOSYSTEMS, INC.  
("FIRST AMENDMENT")**

This amendment, effective December 2, 2008 ("FIRST AMENDMENT EFFECTIVE DATE") is by and between The General Hospital Corporation, a not-for-profit corporation doing business as Massachusetts General Hospital ("HOSPITAL"), having its principal place of business at 55 Fruit Street, Boston, Massachusetts, 02114, and T2 Biosystems, Inc., a Delaware corporation formerly known as Bioplex Systems, Inc., having its principal place of business at 286 Cardinal Medeiros Avenue, Cambridge, MA 02141 ("COMPANY").

WHEREAS, HOSPITAL and COMPANY have entered into an exclusive license agreement (MGH reference #2006A21314) with an effective date of November 7, 2006 ("LICENSE AGREEMENT") for the \*\*\* PATENT RIGHTS and \*\*\* PATENT RIGHTS;

WHEREAS, under research programs funded by the HOSPITAL and the U.S. Government, the HOSPITAL, through research conducted by \*\*\*, has developed an invention pertaining to \*\*\*;

WHEREAS, HOSPITAL has filed patent applications covering the \*\*\* and all the inventors' rights, title and interest in said applications have been assigned to HOSPITAL; and

WHEREAS, HOSPITAL and COMPANY desire to modify the LICENSE AGREEMENT to include the \*\*\*;

NOW THEREFORE, in consideration of the premises and of the faithful performance of the covenants herein contained, HOSPITAL and COMPANY agree to the following:

Section 1.22 shall be added as follows:

1.22 "[\*\*\*] PATENT RIGHTS" shall mean HOSPITAL's rights in the \*\*\*; or the equivalent of such applications including any division, continuation, continuation-in-part to the extent the claims are entitled to the priority filing date of the aforesaid mentioned application and are directed to subject matter specifically described in and reasonably supported by the aforesaid patent applications or any foreign patent application or Letters Patent or the equivalent thereof issuing thereon or reissue, reexamination or extension thereof.

The entirety of Section 1.14 shall be deleted and replaced with the following:

1.14 "PATENTS RIGHTS" shall mean \*\*\* PATENT RIGHTS, \*\*\* PATENT RIGHTS and/or \*\*\* PATENT RIGHTS.

The entirety of Section 4.5 shall be deleted and replaced with:

\*\*\* Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

4.5 Royalties.

- (a) In consideration of the licenses granted to COMPANY under this AGREEMENT and of the long development timeline for commercializing PRODUCTS and PROCESSES, COMPANY shall pay HOSPITAL certain compensation, including but not limited to certain deferred compensation, as follows:
- (i) RESEARCH PRODUCTS and RESEARCH PROCESSES. Beginning with the first COMMERCIAL SALE of the first RESEARCH PRODUCT or RESEARCH PROCESS, COMPANY shall pay HOSPITAL a royalty on the NET SALES of all RESEARCH PRODUCTS and RESEARCH PROCESSES until the later of (1) the expiration or abandonment of the PATENT RIGHTS or (2) ten years from first COMMERCIAL SALE of the first RESEARCH PRODUCT or RESEARCH PROCESS as follows:
- (1) For any RESEARCH PRODUCT or RESEARCH PROCESS covered only by a CLAIM under the \*\*\* PATENT RIGHTS, and not covered by a claim under the \*\*\* PATENT RIGHTS, a royalty of \*\*\*.
  - (2) For any RESEARCH PRODUCT or RESEARCH PROCESS covered only by a CLAIM under the \*\*\* PATENT RIGHTS, and not covered by a claim under the \*\*\* PATENT RIGHTS, a royalty of \*\*\*.
  - (3) For any RESEARCH PRODUCT or RESEARCH PROCESS covered by a CLAIM under the \*\*\* PATENT RIGHTS, and not covered by a claim under the \*\*\* PATENT RIGHTS, a royalty of \*\*\*.
  - (4) For any RESEARCH PRODUCT or RESEARCH PROCESS covered only by a CLAIM under the \*\*\* PATENT RIGHTS, and not covered by a claim under the \*\*\* PATENT RIGHTS, a royalty of \*\*\* on the first Five Hundred Million Dollars (\$500,000,000) of NET SALES of RESEARCH PRODUCTS or RESEARCH PROCESSES for a given calendar year and \*\*\* of NET SALES of RESEARCH PRODUCTS or RESEARCH PROCESSES in excess of Five Hundred Million Dollars (\$500,000,000) for a given calendar year.
  - (5) For any RESEARCH PRODUCT or RESEARCH PROCESS covered by a CLAIM under the \*\*\* PATENT RIGHTS, and not covered by a claim under the \*\*\* PATENT RIGHTS, a royalty of \*\*\*.
  - (6) For any RESEARCH PRODUCT or RESEARCH PROCESS covered by a CLAIM under the \*\*\* PATENT RIGHTS, and not covered by a claim under the \*\*\* PATENT RIGHTS, a royalty of \*\*\*.
  - (7) For any RESEARCH PRODUCT or RESEARCH PROCESS covered by a CLAIM under the \*\*\* PATENT RIGHTS, a royalty of \*\*\*.

\*\*\* Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

- (ii) INDUSTRIAL PRODUCTS or INDUSTRIAL PROCESSES. Beginning with the first COMMERCIAL SALE of the first INDUSTRIAL PRODUCT or INDUSTRIAL PROCESS, COMPANY shall pay HOSPITAL a royalty on the NET SALES of all INDUSTRIAL PRODUCTS and INDUSTRIAL PROCESSES until the later of (1) the expiration or abandonment of the PATENT RIGHTS or (2) ten years from first COMMERCIAL SALE of the first INDUSTRIAL PRODUCT or INDUSTRIAL PROCESS as follows:
- (1) For any INDUSTRIAL PRODUCT or INDUSTRIAL PROCESS covered only by a CLAIM under the \*\*\* PATENT RIGHTS, and not covered by a claim under the \*\*\* PATENT RIGHTS, a royalty of \*\*\*.



- (2) For any INDUSTRIAL PRODUCT or INDUSTRIAL PROCESS covered only by a CLAIM under the [\*\*\*] PATENT RIGHTS, and not covered by a claim under the [\*\*\*] PATENT RIGHTS, a royalty of [\*\*\*].
- (3) For any INDUSTRIAL PRODUCT or INDUSTRIAL PROCESS covered by a CLAIM under the [\*\*\*] PATENT RIGHTS, and not covered by a claim under the [\*\*\*] PATENT RIGHTS, a royalty of [\*\*\*].
- (4) For any INDUSTRIAL PRODUCT or INDUSTRIAL PROCESS covered only by a CLAIM under the [\*\*\*] PATENT RIGHTS, and not covered by a claim under the [\*\*\*] PATENT RIGHTS, a royalty of [\*\*\*] on the first Five Hundred Million Dollars (\$500,000,000) of NET SALES of INDUSTRIAL PRODUCTS or INDUSTRIAL PROCESSES for a given calendar year and [\*\*\*] of NET SALES of INDUSTRIAL PRODUCTS or INDUSTRIAL PROCESSES in excess of Five Hundred Million Dollars (\$500,000,000) for a given calendar year.
- (5) For any INDUSTRIAL PRODUCT or INDUSTRIAL PROCESS covered by a CLAIM under the [\*\*\*] PATENT RIGHTS, and not covered by a claim under the [\*\*\*] PATENT RIGHTS, a royalty of [\*\*\*].
- (6) For any INDUSTRIAL PRODUCT or INDUSTRIAL PROCESS covered by a CLAIM under the [\*\*\*] PATENT RIGHTS, and not covered by a claim under the [\*\*\*] PATENT RIGHTS, a royalty of [\*\*\*].
- (7) For any INDUSTRIAL PRODUCT or INDUSTRIAL PROCESS covered by a CLAIM under the [\*\*\*] PATENT RIGHTS, a royalty of [\*\*\*].
- (iii) DIAGNOSTIC PRODUCTS or DIAGNOSTIC PROCESSES. Beginning with the first COMMERCIAL SALE of the first DIAGNOSTIC PRODUCT or DIAGNOSTIC PROCESS, COMPANY shall pay HOSPITAL a royalty on the NET SALES of all DIAGNOSTIC PRODUCT or DIAGNOSTIC PROCESS until the later of (1) the expiration or abandonment of the PATENT RIGHTS or (2) ten years from first COMMERCIAL SALE of the first DIAGNOSTIC PRODUCT or DIAGNOSTIC PROCESS as follows:

[\*\*\*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

- (1) For any DIAGNOSTIC PRODUCT or DIAGNOSTIC PROCESS covered only by a CLAIM under the [\*\*\*] PATENT RIGHTS, and not covered by a claim under the [\*\*\*] PATENT RIGHTS, a royalty of [\*\*\*].
- (2) For any DIAGNOSTIC PRODUCT or DIAGNOSTIC PROCESS covered only by a CLAIM under the [\*\*\*] PATENT RIGHTS, and not covered by a claim under the [\*\*\*] PATENT RIGHTS, a royalty of [\*\*\*].
- (3) For any DIAGNOSTIC PRODUCT or DIAGNOSTIC PROCESS covered by a CLAIM under the [\*\*\*] PATENT RIGHTS, and not covered by a claim under the [\*\*\*] PATENT RIGHTS, a royalty of [\*\*\*].
- (4) For any DIAGNOSTIC PRODUCT or DIAGNOSTIC PROCESS covered only by a CLAIM under the [\*\*\*] PATENT RIGHTS, and not covered by a claim under the [\*\*\*] PATENT RIGHTS, a royalty of [\*\*\*] on the first Five Hundred Million Dollars (\$500,000,000) of NET SALES of DIAGNOSTIC PRODUCTS or DIAGNOSTIC PROCESSES for a given calendar year and [\*\*\*] of NET SALES of DIAGNOSTIC PRODUCTS or DIAGNOSTIC PROCESSES in excess of Five Hundred Million Dollars (\$500,000,000) for a given calendar year.
- (5) For any DIAGNOSTIC PRODUCT or DIAGNOSTIC PROCESS covered by a CLAIM under the [\*\*\*] PATENT RIGHTS, and not covered by a claim under the [\*\*\*] PATENT RIGHTS, a royalty of [\*\*\*].
- (6) For any DIAGNOSTIC PRODUCT or DIAGNOSTIC PROCESS covered by a CLAIM under the [\*\*\*] PATENT RIGHTS, and not covered by a claim under the [\*\*\*] PATENT RIGHTS, a royalty of [\*\*\*].
- (7) For any DIAGNOSTIC PRODUCT or DIAGNOSTIC PROCESS covered by a CLAIM under the [\*\*\*] PATENT RIGHTS, a royalty of [\*\*\*].
- (b) Royalty Stacking.
- (i) [\*\*\*] PATENT RIGHTS and/or [\*\*\*] PATENT RIGHTS. In the event that COMPANY is required to make [\*\*\*] payments to one or more third parties in order to practice the [\*\*\*] PATENT RIGHTS and/or the [\*\*\*] PATENT RIGHTS for any PRODUCT or PROCESS covered by a CLAIM under the [\*\*\*] PATENT RIGHTS and not covered by a claim under the [\*\*\*] PATENT RIGHTS, COMPANY shall [\*\*\*].

[\*\*\*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

- (ii) [\*\*\*] PATENT RIGHTS [\*\*\*]. In the event that COMPANY is required to make [\*\*\*] payments to one or more third parties in order to practice the [\*\*\*] PATENT RIGHTS for any PRODUCT or PROCESS covered only by a CLAIM under the [\*\*\*] PATENT RIGHTS and not covered by a claim under the [\*\*\*] PATENT RIGHTS, COMPANY may offset a total of [\*\*\*] of such third party [\*\*\*] payments against any [\*\*\*] payments that are due under Section 4.5(a) to HOSPITAL in [\*\*\*], provided that in no event shall the royalty payments in a REPORTING PERIOD under Section 4.5(a), when aggregated with any other offsets and credits allowed under this AGREEMENT, be reduced by more than [\*\*\*] with respect to royalties due to HOSPITAL on PRODUCTS at a rate of [\*\*\*] or more than [\*\*\*] with respect to royalties due to HOSPITAL on PRODUCT at a rate of more than [\*\*\*].
- (iii) [\*\*\*] PATENT RIGHTS. In the event that COMPANY is required to make [\*\*\*] payments to one or more third parties in order to practice the PATENT RIGHTS for any PRODUCT or PROCESS covered by a CLAIM under the [\*\*\*] PATENT RIGHTS, COMPANY may offset [\*\*\*] of such third party [\*\*\*] payments that are due under Section 4.5(a) to HOSPITAL [\*\*\*], provided that in no event shall the royalty in a REPORTING PERIOD under Section 4.5(a), when aggregated with any other offsets and credits allowed under this AGREEMENT, be less than [\*\*\*] of NET SALES of such PRODUCT or PROCESS.
- (iv) [\*\*\*] PATENT RIGHTS. In the event that COMPANY is required to make [\*\*\*] payments to one or more third parties in order to practice the PATENT RIGHTS for any PRODUCT or PROCESS covered by a CLAIM under the [\*\*\*] PATENT RIGHTS, COMPANY may [\*\*\*] of such third party [\*\*\*] payments that are due under Section 4.5(a) to HOSPITAL in [\*\*\*], provided that in no event shall the royalty in a REPORTING PERIOD under Section 4.5(a), when aggregated with any other offsets and credits allowed under this AGREEMENT, be less than [\*\*\*] of NET SALES of such PRODUCT or PROCESS.

- (c) All payments due to HOSPITAL under this Section 4.5 shall be due and payable by COMPANY within [\*\*\*] after the end of each REPORTING PERIOD, and shall be accompanied by a report as set forth in Article 5.4.

The entirety of Section 12.2 shall be deleted and replaced with the following:

12.2 Notices. Any written notices, reports, waivers, correspondences or other communications required under or pertaining to this AGREEMENT, and including all payments required hereunder, shall be given by prepaid registered or certified mail or by an express/overnight delivery service provided by a commercial carrier providing evidence of delivery, properly addressed to the other PARTY, which shall be as follows:

[\*\*\*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

For HOSPITAL  
Director, Corporate Sponsored Research and Licensing  
Massachusetts General Hospital  
101 Huntington Avenue, 4<sup>th</sup> Floor  
Boston, MA 02199

For COMPANY  
T2 Biosystems, Inc.  
286 Cardinal Medeiros Avenue  
Cambridge, MA 02141  
Attention: President and CEO

Notices and payments shall be considered timely if such notices are received on or before the established deadline date or sent on or before the deadline date as verifiable by legibly dated U.S. Postal Service postmark or dated receipt from a commercial carrier.

All other provisions of the LICENSE AGREEMENT shall remain unchanged.

IN WITNESS WHEREOF, COMPANY and HOSPITAL hereto have duly executed this FIRST AMENDMENT.

T2 BIOSYSTEMS, INC.

THE GENERAL HOSPITAL CORPORATION

BY: /s/ John McDonough  
Name: John McDonough

BY: /s/ ILLEGIBLE  
Name:

TITLE: CEO

TITLE: Licensing Manager

DATE: 12/10/2008

DATE: 12/09/08

\*\*\* Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

**Second Amendment  
To the Exclusive License Agreement between  
THE GENERAL HOSPITAL CORPORATION and T2 BIOSYSTEMS, INC.  
("SECOND AMENDMENT")**

This SECOND AMENDMENT, effective February 21, 2011, ("SECOND AMENDMENT EFFECTIVE DATE") is by and between the General Hospital Corporation, a not-for-profit corporation doing business as Massachusetts General Hospital ("HOSPITAL"), having its principal place of business at 55 Fruit Street, Boston, Massachusetts 02114, and T2 Biosystems, Inc., a Delaware corporation formerly known as Bioplex Systems, Inc., having its principal place of business at 101 Hartwell Avenue, Lexington, 02421 ("COMPANY").

WHEREAS HOSPITAL and COMPANY have entered into an exclusive license agreement (MGH agreement no.: 2006A21314) with an effective date of November 7, 2006 and a First Amendment effective December 2, 2008, (collectively the "AGREEMENT"), for the \*\*\* PATENT RIGHTS, \*\*\* PATENT RIGHTS and \*\*\* PATENT RIGHTS, as defined in Section 1 of the AGREEMENT;

WHEREAS COMPANY has expended an unanticipated amount of additional time and effort to develop and commercial DIAGNOSTIC PRODUCTS, DIAGNOSTIC PROCESSES, RESEARCH PRODUCTS, RESEARCH PROCESSES, INDUSTRIAL PRODUCTS, and INDUSTRIAL PROCESSES;

WHEREAS, GENERAL and COMPANY desire to modify the due diligence terms of the AGREEMENT for DIAGNOSTIC PRODUCTS, DIAGNOSTIC PROCESSES, RESEARCH PRODUCTS, RESEARCH PROCESSES, INDUSTRIAL PRODUCTS, and INDUSTRIAL PROCESSES; and

WHEREAS, in lieu of an upfront milestone extension fee and taking into consideration the need for COMPANY to conserve its resources for investment in product development and regulatory planning, HOSPITAL and COMPANY have agreed for COMPANY to pay HOSPITAL a royalty on OUTSIDE PRODUCTS and OUTSIDE PROCESSES (as defined below);

NOW THEREFORE, in consideration of the premises and of the faithful performance of the covenants herein contained, HOSPITAL and COMPANY agree to the following:

1. The entirety of Section 1.15 in the AGREEMENT shall be deleted and replaced with the following:

"Section 1.15 "PROCESS" shall mean any DIAGNOSTIC PROCESS, INDUSTRIAL PROCESS, RESEARCH PROCESS or OUTSIDE PROCESS."

2. The entirety of Section 1.16 in the AGREEMENT shall be deleted and replaced with the following:

"Section 1.16 "PRODUCT" shall mean any DIAGNOSTIC PRODUCT, INDUSTRIAL PRODUCT, RESEARCH PRODUCT or OUTSIDE PRODUCT."

\*\*\* Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

3. A Section 1.23 shall be added in the AGREEMENT as follows:

"Section 1.23 "OUTSIDE PRODUCT" shall mean [\*\*\*]."

4. A Section 1.24 shall be added in the AGREEMENT as follows:

"Section 1.24 "OUTSIDE PROCESS" shall mean [\*\*\*]."

5. At the end of Section 3.1(a)(iv)(ii) in the AGREEMENT add ", provided such Chief Financial Officer or other financial officer may be part-time".

6. The entirety of Section 3.1(a)(vi) in the AGREEMENT shall be deleted.

7. The entirety of Section 3.1(b) and (c) in the AGREEMENT shall be deleted and replaced with the following, and the following new subsection (d) shall be added:

"(b) Pre-sales Requirements for OUTSIDE PRODUCTS or OUTSIDE PROCESSES.

(i) within [\*\*\*] OUTSIDE PRODUCT [\*\*\*].

(ii) within [\*\*\*] OUTSIDE PRODUCT or OUTSIDE PROCESS.

(iii) on or before [\*\*\*] OUTSIDE PRODUCT or OUTSIDE PROCESS.

(c) Pre-Sales Requirements for DIAGNOSTIC PRODUCTS, DIAGNOSTIC PROCESSES, RESEARCH PRODUCTS, RESEARCH PROCESSES, INDUSTRIAL PRODUCTS, and INDUSTRIAL PROCESSES. For purposes of this subsection 3.1(c) DIAGNOSTIC PRODUCTS and DIAGNOSTIC PROCESSES shall comprise the “DIAGNOSTIC FIELD;” RESEARCH PRODUCTS and RESEARCH PROCESSES shall comprise the “RESEARCH FIELD;” INDUSTRIAL PRODUCTS and INDUSTRIAL PROCESSES shall comprise the “INDUSTRIAL FIELD;” and the DIAGNOSTIC FIELD, RESEARCH FIELD and INDUSTRIAL FIELD shall collectively, comprise the “DUE DILIGENCE FIELDS.”

- (i) use commercially reasonable efforts to [\*\*\*] DIAGNOSTIC PRODUCTS, DIAGNOSTIC PROCESSES, RESEARCH PRODUCTS, RESEARCH PROCESSES, INDUSTRIAL PRODUCTS, and/or INDUSTRIAL PROCESSES.
- (ii) [\*\*\*] DIAGNOSTIC PRODUCTS, DIAGNOSTIC PROCESSES, RESEARCH PRODUCTS, RESEARCH PROCESSES, INDUSTRIAL PRODUCTS, and/or INDUSTRIAL PROCESSES.
- (iii) on or before the [\*\*\*], either (A) [\*\*\*] PRODUCT or PROCESS in [\*\*\*] or (B) [\*\*\*] aimed at the [\*\*\*] PRODUCT or PROCESS [\*\*\*] (the PRODUCT or PROCESS that satisfies this condition shall hereinafter be referred to as the SUBSECTION (iii) PRODUCT or PROCESS, and the DUE DILIGENCE FIELD into which the SUBSECTION (iii) PRODUCT or PROCESS falls shall hereinafter be referred to as the SUBSECTION (iii) FIELD).

[\*\*\*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

(iv) on or before the [\*\*\*] of the SECOND AMENDMENT EFFECTIVE DATE:

- (A) either (I) [\*\*\*] SUBSECTION (iii) PRODUCT or PROCESS, or (II) if COMPANY has [\*\*\*] to HOSPITAL for the [\*\*\*] of the SUBSECTION (iii) PRODUCT or PROCESS, which shall be made part of this Section 3 and shall be subject to the obligations contained in this Agreement; and,
- (B) either (I) [\*\*\*] PRODUCT or PROCESS [\*\*\*] or (II) [\*\*\*] aimed at the [\*\*\*] PRODUCT or PROCESS in [\*\*\*] (the PRODUCT or PROCESS that satisfies this condition shall hereinafter be referred to as the SUBSECTION (iv) PRODUCT or PROCESS, and the field in which the SUBSECTION (iv) PRODUCT or PROCESS falls shall hereinafter be referred to as the SUBSECTION (iv) FIELD).

(v) on or before the [\*\*\*] of the SECOND AMENDMENT EFFECTIVE DATE:

- (A) either (I) [\*\*\*] of the SUBSECTION (iv) PRODUCT or PROCESS, or (II) if COMPANY has [\*\*\*] of the SUBSECTION (iv) PRODUCT or PROCESS, which shall be made part of this Section 3 and shall be subject to the obligations contained in this Agreement; and,
- (B) either (I) [\*\*\*] PRODUCT or PROCESS [\*\*\*] or (II) [\*\*\*] aimed at the [\*\*\*] PRODUCT or PROCESS [\*\*\*] (the PRODUCT or PROCESS that satisfies this condition shall hereinafter be referred to as the SUBSECTION (v) PRODUCT or PROCESS).

(vi) on or before the [\*\*\*] of the SECOND AMENDMENT EFFECTIVE DATE, either (a) [\*\*\*] of the SUBSECTION (v) PRODUCT or PROCESS, or (II) if COMPANY has [\*\*\*] of the SUBSECTION (v) PRODUCT or PROCESS, which shall be made part of this Section 3 and shall be subject to the obligations contained in this Agreement;.

(vii) on or before the [\*\*\*] of the SECOND AMENDMENT EFFECTIVE DATE, [\*\*\*] PRODUCT or PROCESS in the [\*\*\*].

Achievement of the foregoing objective for any PRODUCT or PROCESS in the DUE DILIGENCE FIELD (i.e., not for each of DIAGNOSTIC PRODUCT, DIAGNOSTIC PROCESS, RESEARCH PRODUCT, RESEARCH PROCESS, INDUSTRIAL PRODUCT, and INDUSTRIAL PROCESS), shall be deemed to satisfy COMPANY's obligations to use commercially reasonable efforts under this Section 3.1(c)(vii).

(d) Post-Sales Requirements

(i) Continued Sales

Following the first COMMERCIAL SALE of a PRODUCT or PROCESS, [\*\*\*], COMPANY shall itself or through its AFFILIATES and/or SUBLICENSEES use commercially reasonable efforts, [\*\*\*].”

[\*\*\*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

8. The entirety of Section 3.2 in the AGREEMENT shall be deleted and replaced with the following:

“If COMPANY believes it is unable to achieve the foregoing despite commercially reasonable efforts to do so, COMPANY must notify HOSPITAL and inform HOSPITAL in writing of the reason that the foregoing will not be achieved at least [\*\*\*] in advance of the above milestone(s) being due (hereinafter DILIGENCE DELAY NOTICE”). Such DILIGENCE DELAY NOTICE shall be accompanied with a [\*\*\*]. HOSPITAL shall [\*\*\*]. If HOSPITAL determines that COMPANY has failed to fulfill any of its obligations under Section 3.1, COMPANY and HOSPITAL shall meet promptly, but no less than thirty (30) days after such milestone event was due, to discuss the matter and consider any request by COMPANY to remedy the failure. Neither party shall be obligated to agree to any such plan to remedy the failure. If no plan is agreed upon and entered into in writing, or if a plan is agreed upon and COMPANY fails to comply with the agreed plan, then HOSPITAL may treat such failure as a default and may terminate, in accordance with Section 10.4, any licenses granted hereunder with respect to the particular type of PRODUCT or PROCESS which COMPANY has failed to diligently [\*\*\*]. Notwithstanding the foregoing, in the event COMPANY fails to achieve its obligations in the amended Section 3.1(d), HOSPITAL shall have the right to terminate in accordance with Section 10.4 the license granted for the specific country in default. The right to terminate as set forth herein shall be HOSPITAL's sole remedy in the event that COMPANY has failed to fulfill any of its obligations under Section 3.1.

9. The entirety of Section 4.4 in the AGREEMENT shall be deleted and shall be replaced with the following:

4.4 Milestone Payments. In addition to the payments set forth in Sections 4.1 through 4.3 above, COMPANY shall pay HOSPITAL milestone payments as following:

(a) [\*\*\*].”

10. The following new Section 4.5(a)(iv) shall be added in the AGREEMENT:

“Section 4.5(a)(iv): OUTSIDE PRODUCTS. Beginning with the first COMMERCIAL SALE of the first OUTSIDE PRODUCT AND/or OUTSIDE PROCESS, COMPANY shall pay HOSPITAL a royalty of [\*\*\*] on the NET SALES of all OUTSIDE PRODUCTS and/or OUTSIDE PROCESSES until the earlier of (i) twelve (12) years from the first COMMERCIAL SALE of the first OUTSIDE PRODUCT and/or OUTSIDE PROCESS, or (ii) HOSPITAL's exercise of its right of termination set forth in Article 10 of the AGREEMENT such that COMPANY's license grant under the PATENT RIGHTS for each of DIAGNOSTIC PRODUCTS, DIAGNOSTIC PROCESSES, RESEARCH PRODUCTS, RESEARCH PROCESSES, INDUSTRIAL PRODUCTS, or INDUSTRIAL PROCESSES is terminated.

11. The entirety of Section 4.6(a) through (c) in the AGREEMENT shall be deleted and replaced with the following:

“(a) For DIAGNOSTIC PRODUCT, DIAGNOSTIC PROCESS, RESEARCH PRODUCT, RESEARCH PROCESS, INDUSTRIAL PRODUCT, or

\*\*\* Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

INDUSTRIAL PROCESS related non-royalty sublicensing income, the NON-ROYALTY INCOME PERCENTAGE shall be \*\*\*.

(b) For OUTSIDE PRODUCT or OUTSIDE PROCESS related non-royalty sublicensing income, the NON-ROYALTY INCOME PERCENTAGE shall be \*\*\*."

12. Section 5.1 in the AGREEMENT shall be modified by the addition of the words "COMPANY's then-current business plan for any PRODUCTS OR PROCESSES" between "development" and "status".

13. The entirety of Section 10.4 in the AGREEMENT shall be deleted and replaced with:

"10.4. Termination for Non-Financial Default. If COMPANY, its AFFILIATES or SUBLICENSEES shall default in the performance of any of its obligations under this AGREEMENT, including but not limited to its obligations under Sections 3.1(b) or 3.1(c), and if such default has not been cured within sixty (60) days after notice by HOSPITAL in writing of such default, HOSPITAL may immediately terminate any licenses granted hereunder with respect to the particular type of PRODUCT or PROCESS with respect to which such default has occurred at the end said sixty (60) day cure period. Additionally, if the default arises from a failure to meet the Post Sales Requirement set forth in Section 3.1(d) in a particular country, then the HOSPITAL's right to terminate after the sixty (60) day cure period shall be limited to termination in the country where the default has occurred for the particular PRODUCT or PROCESS with respect to which such default has occurred.

14. Section 12.2 in the AGREEMENT shall be modified by replacing HOSPITAL's and COMPANY's with:

**"For HOSPITAL**

Executive Director, Research Ventures and Licensing  
Massachusetts General Hospital  
101 Huntington Avenue, 4th Floor  
Boston, MA 02199"

**"For Company**

T2 Biosystems, Inc.  
101 Hartwell Avenue  
Lexington, Massachusetts 02421  
Attention: President and CEO"

15. The PARTIES previously agreed to delay COMPANY'S submission of its 2009 annual diligence report required by Section 5.1 until resolution of this SECOND AMENDMENT. Within thirty (30) days from the parties' execution of this SECOND AMENDMENT, COMPANY shall submit such report to HOSPITAL. It is expressly agreed that all diligence requirements to date shall be deemed to have been satisfied.

16. All other provisions of the AGREEMENT shall remain unchanged

\*\*\* Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

IN WITNESS WHEREOF, COMPANY and HOSPITAL hereto have duly executed this SECOND AMENDMENT.

T2 BIOSYSTEMS, INC.

THE GENERAL HOSPITAL CORPORATION

BY: /s/ John McDonough  
Print Name John McDonough

BY: /s/ Frances Toneguzzo  
Print Name Frances Toneguzzo

TITLE: CEO

TITLE: Executive Director, Research Ventures & Licensing

DATE: 2/25/2011

DATE: 2/22/11

\*\*\* Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

## SECURITY AGREEMENT

1. **Parties.** This Agreement is made as of May 9, 2011, between T2 Biosystems, Inc., a Delaware corporation with its chief executive office presently at 101 Hartwell Avenue, Lexington, Massachusetts 02421 (herein called "Borrower"), and Massachusetts Development Finance Agency, a body politic and corporate created by Chapter 289 of the Acts of 1998 and established under Massachusetts General Laws Chapter 23G, as amended, with a principal place of business and mailing address of 160 Federal Street, Boston, Massachusetts 02110 (herein called "MassDevelopment").

2. **Security Interest.**

(a) Borrower hereby grants to MassDevelopment a continuing and exclusive (except as provided in Section 4 below) first priority security interest in certain laboratory equipment, tooling and beta units for system development and testing purchased with, and subject to the prior security interest of Silicon Valley Bank, the cost of certain leasehold improvements reimbursed from, the proceeds of the Loan (as defined below) (collectively, the "Collateral"), and additions thereto, replacements or substitutions therefor, and proceeds thereof to the extent the same are not replaced or substituted with items of equal value.

(b) The Collateral shall secure prompt, punctual and faithful observance, payment and performance of each and every obligation, covenant and agreement of Borrower under the Loan Documents, as defined below, including, but not limited to, payment of all amounts due from time to time under that certain Promissory Note of even date herewith in the original principal amount of One Million Six Hundred Eighty-Seven Thousand Five Hundred Dollars (\$1,687,500.00), payable by Borrower to MassDevelopment (the "Note", and together with this Agreement, the "Loan Documents") evidencing and securing a loan in the same amount from the Borrower to MassDevelopment (the "Loan"). Upon payment in full of the Note, MassDevelopment shall, at Borrower's expense, take any reasonable steps to evidence the termination of its security interest in the Collateral, including without limitation the filing of a termination statement under the Uniform Commercial Code for the State of Delaware.

3. **Location of Collateral.** Except as set forth in this Section 3, the Collateral shall be kept and used by the Borrower solely at the Borrower's facility in Lexington, Massachusetts (the "Premises"). Other than removals for the purpose of repair or replacement in the ordinary course of any of the Collateral, or as set forth in this Section 3, the Borrower shall not remove the Collateral, nor any part thereof, from the Premises without the written consent of MassDevelopment. Notwithstanding the foregoing, (i) beta units may be taken to customer sites for short-term demonstrations in the ordinary course of Borrower's business, and (ii) tooling related to manufacturing may be used off-Premises by Borrower's contract manufacturers (i) and (ii), collectively, the "Remote Site Collateral").

4. **After-Acquired Property.** All replacements of and renewals to the Collateral shall become and be immediately subject to the security interest provided herein and be covered thereby. Borrower warrants and represents that all Collateral now is, and that all replacements thereof, substitutions therefor or additions thereto will be, free and clear of liens, encumbrances or security interests of others, except for security interests junior in priority to the interest created by this Agreement and to which MassDevelopment, at its option and in its sole and absolute discretion, shall consent.

5. **Representations and Warranties.** Borrower warrants and represents that:

(a) Borrower is a corporation, duly established under the laws of the State of Delaware and qualified to conduct business in the Commonwealth of Massachusetts, and the execution by Borrower of the Loan Documents and any other instruments executed by Borrower in connection therewith constitute

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representations by the individual in his capacity as a duly authorized officer of Borrower signing the Loan Documents and said instruments, and by Borrower, that such execution has received all such authorization as may be necessary to permit such execution, and the Loan Documents and said instruments are binding and in force against Borrower;

(b) prior to the date hereof Borrower has never (i) disposed of, transported, or arranged for the transport of any hazardous material or oil without compliance with all applicable statutes, regulations, ordinances, directives, and orders; (ii) been legally responsible for any release or threat of release of any hazardous material or oil; or (iii) received notification of any potential or known release or threat of release of any hazardous material or oil from any site or vessel occupied or operated by Borrower and/or of the incurring of any expense or loss in connection with the assessment, containment, or removal of any release or threat of release of any hazardous material or oil from any such site or vessel;

(c) Borrower has filed any and all federal, state and local tax returns required as of the date hereof and has paid any and all taxes due thereon; and

(d) there is no action, suit claim, proceeding, investigation or arbitration proceeding pending (or, to the knowledge of Borrower, threatened) against or otherwise involving Borrower or any of the officers, directors, former officers or directors, employees, shareholders or agents of Borrower (in their capacities as such) and there are no outstanding court orders to which Borrower is a party or by which any of its assets are bound. Borrower has no reason to believe that any such action, suit, proceeding, investigation or arbitration proceeding may be brought against Borrower.

(e) proceeds of the Loan will be used to (i) acquire or reimburse Borrower for the acquisition of new laboratory equipment, (ii) acquire or reimburse Borrower for the acquisition of new tooling and beta units for system development and testing, and (iii) reimburse Borrower for leasehold improvement costs (the "Project") located at its facility at 101 Hartwell Avenue, Lexington, Massachusetts.

6. **Further Covenants of Borrower.** Borrower further covenants as follows:

(a) to pay before the same become delinquent (and to provide, by such time, evidence of such payment, satisfactory to MassDevelopment) all taxes (including real estate taxes) on the Collateral; and to pay before the same become delinquent (and upon request, to provide evidence of such payment, satisfactory to MassDevelopment) all other charges, sewer use fees, water rates and assessments of every name and nature, whether or not assessed against the Borrower, if applicable or reasonably related to the Collateral, or any interest therein, or the debt, obligation or any agreement secured hereby, or the disbursement or the application or the proceeds thereof. Borrower shall have the right to contest the validity, applicability or amount of any asserted tax provided that, in MassDevelopment's reasonable determination, such contest will not impair the validity or priority of the lien created by this Agreement and provided that the full amount of such tax is either paid to the taxing authority under protest or escrowed with MassDevelopment;

(b) to notify MassDevelopment promptly of any accidental damage to the Collateral in excess of one hundred sixty thousand dollars (\$160,000.00); to keep the Collateral in good order, repair and condition, damage from casualty expressly not excepted, and not to permit or commit waste on the Collateral nor remove nor alter anything which constitutes a part of the Collateral, except in the ordinary course of business, without the consent of MassDevelopment, such consent not to be unreasonably withheld, conditioned, or delayed, except as otherwise provided herein; and all construction on the Premises shall comply with, and each and every part of the Premises shall be maintained in accordance with, any lawful requirements or provisions, public or private, relating to the same or the use thereof;

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(c) that all proceeds of casualty insurance policies maintained by Borrower relating to the Collateral shall be paid to MassDevelopment and shall be released to Borrower to pay for the costs of repair and restoration of the Collateral; and to the extent MassDevelopment retains any funds not required for repair and restoration, those funds shall be applied toward the indebtedness secured hereby;

(d) that the awards of damages on account of any condemnation for public use of or injury to the Collateral shall be paid to MassDevelopment for application toward the indebtedness secured hereby; and promptly upon obtaining knowledge of the institution of any proceedings on account of any condemnation for public use of or injury to the Premises, or any portion thereof, Borrower will notify MassDevelopment of the pendency of such proceedings, and no settlement respecting such awards shall be effected without the consent of MassDevelopment;

(e) to pay when due all reasonable out-of-pocket fees and charges incurred by MassDevelopment incident to the loan transaction evidenced by the Loan Documents, as well as any and all commitment fees remaining due thereunder;

(f) that, from time to time, on the request of MassDevelopment, Borrower shall furnish a written statement, signed and if requested, acknowledged, setting forth the amount of the indebtedness which Borrower acknowledges to be due on the Note, specifying any claims of off-set or defense which Borrower asserts against the indebtedness secured hereby or any obligations to be paid or performed hereunder, and the then-current state of facts relative to the condition of the Collateral; and to deliver to MassDevelopment promptly copies of all junior mortgages, security agreements, assignments of leases and rents and similar instruments which Borrower may create with respect to the Premises, together with copies of any notices from any holder of such an instrument claiming that Borrower is in default in the performance or observance of any of the terms thereof;

(g) that whether or not for additional interest or other consideration paid or payable to MassDevelopment, no forbearance on the part of MassDevelopment or extension of the time for payment of the whole or any part of the obligations secured hereby, whether oral or in writing, or any other indulgence given by MassDevelopment to Borrower or to any other party claiming any interest in or to the Collateral, shall operate except as provided by the forbearance or indulgence to release or in any manner affect the original liability of Borrower, or impair any right of MassDevelopment, including, without limitation, the right to realize, upon the security or any part thereof, for the obligations secured hereby or any of them, notice of any such extension, forbearance or indulgence being waived by Borrower and all those claiming by, through or under Borrower; and no consent or waiver, express or implied, by the holder to or of any default by the Borrower shall be construed as a consent or waiver to or of any further default in the same or any other term, condition, covenant or provision of this Agreement or of the obligations secured hereby; in case redemption is had by Borrower after foreclosure proceedings have begun, MassDevelopment shall be entitled to collect all reasonable costs, charges and expenses incurred up to the time of redemption; and in case any one or more of the provisions of this Agreement may be found to be invalid or unenforceable for any reason or in any respect, such invalidity shall not limit or impair enforcement of any other provision hereof;

(h) that, except for real estate taxes and assessments before any delinquency thereupon (delinquency with reference to such taxes and assessments being herein defined, for the purpose of this Agreement, as meaning the time when, on the nonpayment thereof, interest or penalties commence to accrue), Borrower shall not create, permit or suffer to be created or permitted to remain (and shall discharge or promptly cause to be discharged or bonded over) any mechanics' or laborers' lien of record, or any attachment, on the Collateral or any part thereof or interest therein, without the consent of MassDevelopment which may be withheld in MassDevelopment's sole and absolute discretion, even if

3

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such encumbrance is inferior to the interest secured hereby; without limitation, and except where MassDevelopment receives independent security satisfactory to MassDevelopment during the pendency of legal proceedings contesting the impositions of a governmental lien, the filing of a notice of Federal or State tax lien with MassDevelopment or the office at which, by law, such notice is to be filed to be effective against the Collateral, whether or not such lien applies, in terms, to the Collateral, shall be a breach of this condition;

(i) that Borrower shall not transfer, whether voluntarily, by operation of law or otherwise, its interest in that certain lease agreement by and between Borrower as tenant and King 101 Hartwell LLC dated [insert date], as amended, with respect to the Premises, including all addenda and riders thereto (the "Lease"), or any part thereof, and that no default shall occur by Borrower as tenant under the Lease which shall remain uncured beyond any applicable grace or cure period contained in the Lease;

(j) that Borrower shall not file a petition or any application for relief, extension, moratorium or reorganization under any bankruptcy, insolvency or debtor's relief law, or make an assignment for the benefit of creditors or enter into any trust mortgage arrangements, so-called, or consent to the appointment of a receiver of any of the property of Borrower, including the Collateral;

(k) that Borrower shall not permit any petition under any bankruptcy, insolvency or debtor's relief law filed against it to remain undischarged for a period of more than sixty (60) days after the filing thereof, nor shall Borrower permit the continuation of any receivership proceedings instituted against it for more than a period of sixty (60) days after the commencement thereof;

(l) that Borrower shall not dispose of any hazardous material or oil on the land on which the Premises is located; nor store or transport or arrange for the transport of any hazardous material or oil on such property except if such disposal, storage or transport is in the ordinary course of Borrower's business and is in compliance with all applicable statutes, regulations, ordinances, directives and orders; if Borrower obtains knowledge or notice of any potential or known release or threat of release of any hazardous material or oil at or from any site or vessel occupied or operated by Borrower, and/or upon Borrower's obtaining knowledge of any incurrence of any expense or loss by any governmental authority in connection with the assessment, containment, or removal of any hazardous material or oil for which expense or loss Borrower may be liable, then in either of such events, Borrower shall take all such reasonable action, including without limitation the conducting of engineering tests, to confirm whether or not a potential or known release or threat of release of any hazardous material or oil exists and to undertake all necessary remediation required under Mass. Gen. Laws Ch. 21E and the Massachusetts Contingency Plan;

(m) that Borrower, at Borrower's expense, shall furnish to MassDevelopment as soon as practicable (and in any event within forty-five (45) days) after the end of each fiscal quarter (other than the final quarter of each fiscal year), unaudited interim financial statements as of the end of such fiscal quarter (prepared on a consolidated and consolidating basis, if applicable), including balance sheet and related statements of income and cash flows all certified by Borrower's Chief Executive Officer or Chief Financial Officer to the effect that such financial statements present fairly in all material respects the financial condition and results of operations of Borrower as of the date thereof, and otherwise in form reasonably acceptable to MassDevelopment. In addition, Borrower shall, at Borrower's expense, provide to MassDevelopment annual audited financial statements (prepared on a consolidated and consolidating basis, if applicable) within one hundred eighty (180) days of year end, prepared and audited by a certified public accountant reasonably acceptable to MassDevelopment. MassDevelopment shall have the right, during regular business hours and upon reasonable prior notice, to inspect the Premises and the books and records of Borrower at its sole cost for the purpose of verifying the accuracy of such financial documents (or, for the purpose of conducting its own audit at Borrower's cost of the records and books of account of

4

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Borrower if Borrower fails to furnish or cause to be furnished and delivered the aforesaid financial documents), provided, however, that MassDevelopment shall not have the right to exercise its audit rights with respect to the books and records more than once in any calendar year, except upon and during the continuance of any Event of Default;

(n) that Borrower shall furnish to MassDevelopment as soon as practicable (and in any event within thirty (30) days) after the end of each calendar year, employment data for the Borrower's operations in Massachusetts in a form reasonably acceptable to MassDevelopment;

(o) that Borrower has not granted, and shall not grant after the date hereof and throughout the full term of the Note, a security interest to any third party in any of the Collateral for the Loan without the prior express written consent of MassDevelopment which it may grant or withhold in its sole discretion;

(p) that as long as any principal remains outstanding under the Loan, Borrower shall not incur any additional indebtedness in an amount greater than \$200,000.00 in the aggregate without MassDevelopment's prior written consent, which MassDevelopment may grant or withhold in its sole discretion. MassDevelopment may require any such additional indebtedness to be subordinate to the Loan;

(q) that Borrower shall, at all times throughout the term of the Loan, maintain a minimum balance of \$300,000 in cash and/or marketable securities;

(r) that Borrower shall abide by the terms and conditions of a certain Negative Pledge Agreement of even date herewith (the "Negative Pledge Agreement") by and between Borrower and MassDevelopment with respect to Borrower's Intellectual Property (as such term is defined in the Negative Pledge Agreement); and

(s) that Borrower shall not sell or otherwise dispose of any of Borrower's Intellectual Property (as such term is defined in the Negative Pledge Agreement) without MassDevelopment's express written consent; provided that MassDevelopment's written consent shall not be required for licensing of Borrower's Intellectual Property in the ordinary course of Borrower's business and otherwise pursuant to the terms and conditions of the Negative Pledge Agreement;

(t) in the event that the budget and related sources and uses of funding provided by Borrower to MassDevelopment with respect to the transactions contemplated by the Loan documents change in any material respect from that which was submitted to MassDevelopment at the time of Borrower's application for the Loan, the Borrower shall submit a revised budget and sources and uses of funding, along with revised cash flow projections, to MassDevelopment and its participants, if any, in the Loan, for approval, such approval not to be unreasonably withheld, conditioned, or delayed.

7. **Insurance.** Borrower agrees to maintain such insurance on the Collateral and its use as MassDevelopment may from time to time reasonably require and as may from time to time be required by any applicable Federal, State or local law or regulation including, without limitation, (x) a general liability insurance policy naming MassDevelopment as an additional insured with respect to the Collateral in an amount reasonably acceptable to MassDevelopment, (y) fire and extended coverage insurance against loss or damage to the Collateral by fire and any of the risks covered by insurance of the type now known as "extended coverage", including without limitation earthquake, cost of demolition, vandalism, malicious mischief, lightning, windstorm, hail,

insurance or insurance binders in forms satisfactory to MassDevelopment, evidencing the insurance required by MassDevelopment, together with any other insurance with respect to the Collateral maintained by Borrower, shall be deposited with MassDevelopment, and, MassDevelopment shall be added and named as an insured and loss payee, and shall be first payable to MassDevelopment in case of loss, as provided in Section 6(c) above; all renewals or replacements of such insurance from time to time in force, together with evidence of payment of premiums thereon reasonably satisfactory to MassDevelopment, shall be delivered to MassDevelopment ten (10) days at least before the expiration date of the then current insurance; all insurance required by MassDevelopment to be maintained with respect to the Collateral shall be written by such companies on such terms, in such form and for such periods and amounts as MassDevelopment shall from time to time reasonably approve and shall contain a provision requiring at least thirty (30) days' advance written notice to MassDevelopment before any such policy may be cancelled or modified; and no settlement on account of any loss covered by such insurance shall be effected without the consent of MassDevelopment. It is hereby acknowledged that the insurance maintained by Borrower is satisfactory to MassDevelopment with respect to the Collateral financed by the Loan proceeds as of the date hereof; however, Borrower shall be responsible for insuring any and all Collateral financed by future advances under the Loan, including any and all Remote Site Collateral, in accordance with this Section 7.

#### **8. Remedies of MassDevelopment.**

(a) In the case of the occurrence and continuation of (i) an Event of Default under the Note or (ii) a violation by Borrower of its obligations under this Agreement not remedied within thirty (30) days after written notice thereof from MassDevelopment (except that where, for any of the foregoing, a period of grace is specifically otherwise provided or negated, such specific periods of time or negation shall govern in each case), MassDevelopment shall have all of the rights and remedies of a secured party under the UCC, including without limitation the right in accordance with applicable law to enter peaceably into and upon the Premises and any other place where the Collateral may be, and to retake the same in order to foreclose upon it in any manner permitted by applicable law.

(b) In addition to the foregoing, and in addition to any remedies available to MassDevelopment under the Note, if there shall be any breach of the conditions of subsections (i), (j), (k), or (l) of Section 6, the representation in Section 5(b) or the provisions of Section 7, or if, in any respect other than the filing of a governmental lien, there shall be any breach of any conditions or covenants of this Agreement continuing for more than thirty (30) days after the giving of notice by MassDevelopment or an Event of Default under the Note continuing beyond any applicable grace periods (except that where, for any of the foregoing, a period of grace is specifically otherwise provided or negated, such specific periods of time or negation shall govern in each case), or if there occurs any default under any prior or subordinate security interest covering Borrower's leasehold interest in the Premises, or under any note or other obligation secured thereby, which default may result in the acceleration of the indebtedness secured thereby, or if there shall occur the commencement of foreclosure or other enforcement proceedings under any prior or subordinate security interest covering any other asset of Borrower or Borrower's leasehold interest in the Premises, or under any note or other obligation secured thereby, then MassDevelopment, in addition to, and not in limitation of, any and all other rights or remedies available to it by law or by any other provision of any of the instruments given to secure the Note, shall have the right, during the continuance of the default beyond any applicable grace period, and without notice, in accordance with applicable law:

(i) to peaceably enter upon the Premises and take possession of the Collateral, or any part thereof; and to perform any acts MassDevelopment shall deem necessary or proper to conserve the Collateral, to cure any default of the Borrower under the Lease, and to manage and operate the Collateral, to collect and receive all rents, revenues, income, issues and profits from the Collateral,

past-due and thereafter accruing, and to exercise all other rights of the Borrower with respect to the Collateral;

(ii) to have a receiver appointed to enter and take possession of the Collateral, or any part thereof, and to perform any acts said receiver shall deem necessary or proper to conserve the Collateral (including, without limitation, the making of repairs, replacements and alterations), to maintain the Lease in good standing without uncured defaults, to manage and operate the Collateral, to collect and receive all rents, revenues, income, issues and profits from the Collateral, past-due and thereafter accruing, and to exercise all other rights of the Borrower with respect to the Collateral;

(iii) to declare the entire indebtedness of the Borrower under the Note forthwith due and payable;

(iv) to sell the Collateral at public auction on such terms and conditions as MassDevelopment shall determine, having first given such notice, prior to the sale, of the time and place of sale and terms and conditions of sale by publication in one (1) or more newspapers having a general circulation in the municipality in which the Premises, or part thereof, is located, all subject, however, to the requirements of this Agreement and applicable law; or to foreclose on the Collateral in any other manner permitted by law; and

(v) to obtain judgment and execution for the indebtedness secured by this Agreement, to the extent not otherwise satisfied;

(c) If there shall be any breach in any condition or covenant of this Agreement beyond any applicable grace period, MassDevelopment shall have the right, but without any obligation so to do, to cure such default for the account of Borrower, and, to the fullest extent permissible according to law, apply any funds credited by or due from MassDevelopment to Borrower against the same (without any obligation first to enforce any other rights of MassDevelopment, including, without limitation, any rights under the Note or this Agreement, or any guarantee thereof, and without prejudice to any such rights); to pay the premiums for any insurance required hereunder not paid when due; to incur and pay reasonable expenses in protecting its rights hereunder and the security hereby granted, including, again without limitation, all payments on account of principal, interest and such other charges as may become due to cure default under any subordinate interest, including the notes or obligations secured thereby, affecting the Collateral; to pay any balance due under any security agreement on any articles, fixtures and equipment owed by Borrower included as a part of the Collateral; and the payment of all amounts so incurred shall be secured hereby as fully and effectually as any other obligation of Borrower secured hereby; and, to the fullest extent permissible according to law, to apply to any of these purposes or to the repayment of any amounts so paid by MassDevelopment of any sums paid on the Note or this Agreement by Borrower as interest or otherwise.

(d) At any foreclosure sale, any combination or all of the Collateral or security given to secure the indebtedness secured hereby, may be offered for sale for one total price, and the proceeds of such sale accounted for in one account without distinction between the items of security or without assigning to them any proportion of such proceeds, Borrower hereby waiving the application of any doctrine of marshalling; and, in case MassDevelopment, in the exercise of the power of sale herein given, elects to sell in parts or parcels; said sales may be held from time to time, and the power shall not be fully executed until all of the Collateral not previously sold shall have been sold.

(e) If MassDevelopment shall exercise the right described in either subsection (b)(i) or (b)(ii) of this Section 8, the expenses (including, without limitation, reasonable receiver's fees and reasonable attorney's fees) incurred pursuant to the powers herein contained likewise shall be secured hereby, and

MassDevelopment shall apply such rents, income, issues and profits as shall be received by it first to the payment of all costs and expenses incurred and thereafter to the indebtedness secured hereby in such order of priority as MassDevelopment, in its sole discretion, shall determine; and the exercise of such rights and disposition of such funds shall not constitute a waiver of any foreclosure, once commenced, nor preclude the later commencement or foreclosure for breach hereof.

(f) If MassDevelopment shall exercise the right described in subsection (b)(iv) of this Section 8, MassDevelopment may adjourn, from time to time, any sale by announcement of such adjournment at the time and place appointed for such sale or such adjourned sale; and, except as otherwise provided by law, MassDevelopment may, without further notice or publication, make such sale at the time and place to which the same shall be so adjourned. Upon completion of any sale, MassDevelopment shall execute and deliver an instrument conveying, assigning and transferring all right, title and interest in the Collateral, and rights sold, in the name of MassDevelopment, or in the name of Borrower, and the same shall operate to divest all right, title and interest of Borrower in any property or right so sold and shall be a perpetual bar, both at law and in equity, against Borrower and all persons claiming under Borrower unless MassDevelopment acts with willful neglect, gross negligence or in bad faith.

(g) The rights and remedies of MassDevelopment for any default under any of the instruments given as security for the indebtedness secured hereby are not mutually exclusive, and may be exercised successively or concurrently and from time to time for as long as any default exists, and the failure of MassDevelopment to exercise any such rights in any one or more instances,

or the acceptance by MassDevelopment of partial payments of amounts in default secured hereby, shall not constitute a waiver of such default, but such right shall remain continuously in force; and acceleration of maturity, once claimed hereby by MassDevelopment, may, at MassDevelopment's option, be rescinded by written acknowledgment to that effect without waiving the default or any rights, including the right to accelerate once again, with respect thereto; moreover, the tender and acceptance of partial payment of amounts in default after acceleration, or the commencement of any foreclosure action, shall not in any way affect, rescind or terminate such acceleration of maturity or such foreclosure action.

(h) If at any time any law or court decree prohibits the performance of any material obligation undertaken hereby by Borrower which would impair MassDevelopment's interest in the Collateral or its right to payment under the Note, or, at any time provides that any amount to be paid hereunder by Borrower, other than a payment on account of the principal or of interest on the indebtedness secured hereby, must be credited against Borrower's obligations under the Note, MassDevelopment shall have the right on thirty (30) days' prior notice to Borrower, to require payment in full of the entire indebtedness secured hereby unless Borrower reverses such prohibition or otherwise reasonably satisfies MassDevelopment within said thirty (30) day period.

**9. MassDevelopment's Appointment as Attorney-in-Fact.**

(a) Borrower hereby irrevocably constitutes and appoints MassDevelopment and any officer or agent thereof, with full power of substitution, as their true and lawful attorney-in-fact with full irrevocable power and authority in the place and stead of Borrower and in the name of Borrower or in its own name, from time to time in MassDevelopment's discretion, for the purpose of carrying out the terms of this Agreement, to take any and all appropriate action and to execute any and all documents and instruments that may be necessary or desirable to accomplish the purposes of this Agreement and, without limiting the generality of the foregoing, hereby gives MassDevelopment the power and right, on behalf of Borrower, without notice to or assent by Borrower, but only after an Event of Default has occurred and is continuing, to do the following:

(i) to pay or discharge taxes or liens levied or placed on or threatened against the Collateral, to effect any repairs or any insurance called for by the terms of this Agreement and to pay all or any part of the premiums therefor and the costs thereof; and

(ii) (A) to direct any party liable for any payment to Borrower under the Collateral, to make payment of any and all moneys due and to become due thereunder directly to MassDevelopment or as MassDevelopment shall direct; (B) to receive payment of and receipt for any and all moneys, claims and other amounts due and to become due at any time in respect of or arising out of the Collateral; (C) to sign and endorse any invoices, freight or express bills, bills of lading, storage or warehouse receipts, drafts against debtors, assignments, verifications and notices in connection with the Collateral and other documents relating to the Collateral; (D) to commence and prosecute any suits, actions or proceedings at law or in equity in any court of competent jurisdiction to pursue and protect MassDevelopment's interest in the Collateral or any part thereof and to enforce any other right in respect of the Collateral; (E) to sign Borrower's name on any proof of claim against account debtors with respect to the Collateral; (F) to defend any suit, action or proceeding brought against Borrower with respect to any Collateral; (G) to settle, compromise or adjust any suit, action or proceeding described above and, in connection therewith, to give such discharges or releases as MassDevelopment may deem appropriate, all with respect solely to the Collateral; (H) to sign Borrower's name on and file or record any financing statement necessary to perfect MassDevelopment's interest in the Collateral; and (I) otherwise to repair, assemble, complete, alter, supply, use, license, sell, transfer, pledge, make any agreement with respect to or otherwise deal with the Collateral as fully and completely as though MassDevelopment were the absolute owner thereof for all purposes, and to do, at MassDevelopment's option and at Borrower's expense, at any time or from time to time, all acts and things that MassDevelopment deems reasonably necessary to protect, preserve or realize upon the Collateral and MassDevelopment's security interests therein, in order to effect the intent of this Agreement, all as fully and effectively as the Borrower might do.

The Borrower hereby ratifies all that said attorneys shall lawfully do or cause to be done by virtue hereof. This power of attorney is a power coupled with an interest and shall be irrevocable.

(b) The powers conferred on MassDevelopment hereunder are solely to protect the interests of MassDevelopment in the Collateral and shall not impose any duty upon MassDevelopment to exercise any such powers for the benefit of Borrower or any other person. MassDevelopment shall be accountable only for amounts that it actually receives as a result of the exercise of such powers, and neither it nor any of its officers, directors, employees or agents shall be responsible to Borrower for any act or failure to act, except for its own willful misconduct taken or omitted in bad faith.

(c) Any expenses reasonably incurred by MassDevelopment under this Section shall be paid by Borrower on demand and until so paid shall be added to the principal amount of any Obligations secured hereby and shall bear interest (calculated on the basis of a 360-day year for the actual days elapsed) at the same rate as provided in the Loan Documents after maturity or during an Event of Default.

**10. Miscellaneous.**

(a) This Agreement (i) shall be governed by the internal laws of The Commonwealth of Massachusetts; (ii) may be amended and any rights or obligations hereunder may be waived, only by a writing signed by the party against whom enforcement thereof is sought; (iii) may be enforced by an

action brought in any court of competent jurisdiction, including the Massachusetts Superior Court in and for Suffolk County, to the personal jurisdiction of which court each party hereby submits, and in any such action each party hereby knowingly and irrevocably waives the right to trial by jury; and (iv) is intended to provide MassDevelopment with all rights and remedies of a secured party under the UCC.

(b) Any notice, request, instruction or other document to be given hereunder or under the Note to either party by the other shall be in writing and delivered personally or sent by recognized overnight courier, receipt confirmed or sent by certified or registered mail, postage prepaid, to the addresses set forth in this Agreement.

[Signatures Appear on Following Page]

Executed under seal this 9<sup>th</sup> day of May, 2011.

**BORROWER:**  
**T2 BIOSYSTEMS, INC.**

**MASSDEVELOPMENT:**  
**MASSACHUSETTS DEVELOPMENT  
FINANCE AGENCY**

By: /s/ John McDonough  
Name: John McDonough  
Title: CEO & President  
Hereunto Duly Authorized

By: /s/ Laura L. Canter  
Name: Laura L. Canter  
Title: Executive Vice President  
Finance Programs  
Hereunto Duly Authorized



## LOAN AND SECURITY AGREEMENT

THIS LOAN AND SECURITY AGREEMENT (this “**Agreement**”) dated as of August 30, 2007 (the “**Effective Date**”) between **SILICON VALLEY BANK**, a California corporation and with a loan production office located at One Newton Executive Park, Suite 200, 2221 Washington Street, Newton, Massachusetts 02462 (“**Bank**”), and **T2 BIOSYSTEMS, 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 **Equipment Advances.**

(a) Availability. Subject to the terms and conditions of this Agreement, during the Draw Period, Bank shall make advances (each, an “**Equipment Advance**” and, collectively, “**Equipment Advances**”) not exceeding the Equipment Line. Equipment Advances may only be used to finance Eligible Equipment purchased within ninety (90) days (determined based upon the applicable invoice date of such Eligible Equipment) before the date of each Equipment Advance, and no Equipment Advance may exceed 100% of the total invoice for Eligible Equipment, excluding taxes, shipping, warranty charges, freight discounts and installation expenses relating to such Eligible Equipment. Notwithstanding the foregoing, the initial Equipment Advance (the “**Initial Equipment Advance**”) hereunder may be used to reimburse Borrower for Eligible Equipment purchased on or after January 1, 2007; provided that, the Initial Equipment Advance is requested within thirty (30) days after the Effective Date. Unless otherwise agreed to by Bank, not more than 25% of the proceeds of the Equipment Line shall be used to finance Other Equipment. Each Equipment Advance, other than the final Equipment Advance, must be in an amount equal to at least \$50,000. After repayment, no Equipment Advance may be reborrowed.

(b) Interest Rate; Interest Payment. Subject to Section 2.2(a), the principal amount outstanding for each Equipment Advance shall accrue interest at a fixed per annum rate equal to one half of one percentage point (0.50%) above the Prime Rate, determined by Bank as of the Funding Date, which interest shall be payable monthly.

(c) Principal Payment. In addition to the monthly payments of interest, as set forth in Section 2.1.1(b) above, the principal amount of each Equipment Advance is payable in forty-eight (48) consecutive equal monthly payments of principal beginning on the first calendar day of the month following the Funding Date of such Equipment Advance and continuing on the first calendar day of each month thereafter. The final payment due on the applicable Equipment Maturity Date shall include all outstanding principal and all accrued unpaid interest.

(d) Prepayment Upon an Event of Loss. Borrower shall bear the risk of any loss, theft, destruction, or damage of or to the Financed Equipment. If, during the term of this Agreement, any item of Financed Equipment becomes obsolete or is lost, stolen, destroyed, damaged beyond repair, rendered permanently unfit for use, or seized by a governmental authority for any reason for a period equal to at least the remainder of the term of this Agreement (an “**Event of Loss**”), then, if no Event of Default has occurred or is continuing, within ten (10) days following such Event of Loss, at Borrower’s option, Borrower shall (i) pay to Bank on account of the Obligations all accrued interest to the date of the prepayment, plus all outstanding principal owing with respect to the Financed Equipment subject to the Event of Loss; or (ii) repair or replace any Financed Equipment subject to an Event of Loss provided the repaired or replaced Financed Equipment is of equal or like value to the Financed Equipment subject to an Event of Loss and provided further that Bank has a first priority perfected security interest in such repaired or replaced Financed Equipment.

(e) Mandatory Prepayment Upon an Acceleration. If the Equipment Advances are accelerated following the occurrence 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, (ii) the Final Payment, and (iii) 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.

(f) Permitted Prepayment of Equipment 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 Equipment Advances advanced by Bank under this Agreement, provided Borrower (i) delivers written notice to Bank of its election to prepay the Equipment Advances at least thirty (30) 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, and (C) 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.

### 2.2 **Payment of Interest on the Credit Extensions.**

(a) 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 five percentage points above the rate effective immediately before the Event of Default (the “**Default Rate**”). Payment or acceptance of the increased interest rate provided in this Section 2.2(a) 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.

(b) 360-Day Year. Interest shall be computed on the basis of a 360-day year for the actual number of days elapsed.

(c) Debit of Accounts. On the first calendar day of each month, Bank may debit any of Borrower’s deposit accounts, including the Designated Deposit Account, for regularly scheduled principal and interest payments or any other amounts Borrower owes Bank pursuant to this Agreement. These debits shall not constitute a set-off.

(d) Payments. Unless otherwise provided, interest is payable monthly on the first (1<sup>st</sup>) calendar day of each month. Payments of principal and/or interest received after 12:00 noon 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 additional fees or interest, as applicable, shall continue to accrue.

### 2.3 **Fees.** Borrower shall pay to Bank:

(a) Final Payment. The Final Payment, when due hereunder; and

(b) Bank Expenses. All Bank Expenses (including reasonable attorneys’ fees and expenses for documentation and negotiation of this Agreement) incurred through and after the Effective Date, when due.

**2.4 Additional Costs.** If any new law or regulation increases Bank’s costs or reduces its income for any loan, Borrower shall pay the increase in cost or reduction in income or additional expense provided, however, that Borrower shall not be liable for any amount attributable to any period before 180 days prior to the date Bank notifies Borrower of such increased costs. Bank agrees that it shall allocate any increased costs among its customers similarly affected in good faith and in a manner consistent with Bank’s customary practice.

### 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 to which it is a party;

- (b) Borrower shall have delivered 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;
- (c) Duly executed original signatures to the Warrant;
- (d) Duly executed original signatures to the completed Borrowing Resolutions for Borrower;
- (e) Bank shall have received 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) Borrower shall have delivered a landlord's consent executed in favor of Bank together with the duly executed original signatures thereto;
- (g) Borrower shall have delivered a legal opinion of Borrower's counsel dated as of the Effective Date together with the duly executed original signatures thereto;
- (h) Borrower shall have delivered a copy of its Investor Rights Agreement and any amendments thereto;
- (i) Borrower shall have delivered 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) Borrower shall have paid 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 the Payment/Advance Form and UCC financing statement covering the Financed Equipment described on Exhibit A;
- (b) the representations and warranties in Section 5 shall be true 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 Default or 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 remain true in all material respects; 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) Bank shall have the opportunity to confirm that upon filing the UCC financing statement covering the Eligible Equipment described on Exhibit A, that Bank shall have a first perfected security interest in such Eligible Equipment; and
- (d) 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 the extension of a Credit Extension prior to the receipt by Bank of any such item shall not constitute a waiver by Bank of Borrower's

3

obligation to deliver such item, and any such extension in the absence of a required item shall be in Bank's sole discretion.

**3.4 Procedures for Borrowing.** To obtain an Equipment Advance, Borrower must notify Bank (which notice shall be irrevocable) by facsimile no later than 3:00 p.m. Eastern time one (1) Business Day before the day on which the Equipment Advance is to be made. A Payment/Advance Form must be signed by a Responsible Officer or designee and include a copy of the invoice for the Equipment being financed, together with a UCC Financing Statement authorization covering the Financed Equipment described on Exhibit A and such additional information as Bank may reasonably request at least five (5) Business Days before the proposed Funding Date. If Borrower satisfies the conditions of each Equipment Advance, Bank shall disburse such Equipment Advance by transfer to the Designated Deposit Account.

#### **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 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.

#### **5 REPRESENTATIONS AND WARRANTIES**

Borrower represents and warrants as follows:

**5.1 Due Organization and Authorization.** 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 business or their ownership of property requires that they 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 perfection 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 in all material respects. 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 of the Loan Documents have been duly authorized, and do not conflict with Borrower's organizational documents, nor 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 reasonably be expected to have a material adverse effect on Borrower's business.

4

**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. The Collateral is not in the possession of any third party bailee (such as a warehouse) except as otherwise provided in the Perfection Certificate. 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, 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 sole discretion.

**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 \$100,000.

**5.4 No Material Deterioration in Financial Statements.** All consolidated financial statements for Borrower and any of its Subsidiaries delivered to Bank fairly present in all material respects Borrower's consolidated financial condition and Borrower's consolidated results of operations. 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. Borrower is not engaged as one of its important activities in extending credit for margin stock (under Regulations T and U of the Federal Reserve Board of Governors). Borrower has complied in all material respects with the Federal Fair Labor Standards Act. 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 the best of 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 its business 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 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 purchase Eligible Equipment, and 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, as of the date such representations, warranties, or other statements were made, taken together with all such written certificates and written statements given to Bank, contains any untrue statement of a material fact or omits to state a material fact necessary to make the statements contained in the

5

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certificates or statements 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.** 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, the noncompliance with which could have a material adverse effect on Borrower's business.

**6.2 Financial Statements, Reports, Certificates.** Deliver to Bank: (i) as soon as available, but no later than forty-five (45) days after the last day of each month, a company prepared consolidated balance sheet and income statement covering Borrower's consolidated operations during the period 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 (except for "going concern" qualifications for development stage companies) on the financial statements from an independent certified public accounting firm acceptable to Bank in its reasonable discretion; (iii) as soon as available, but no later than forty-five (45) days after the last day of Borrower's fiscal year, Borrower's financial projections for current fiscal year as approved by Borrower's Board of Directors; (iv) 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 (v) 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; (vi) 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) or more; and (vii) other financial information reasonably requested by Bank.

**6.3 Taxes; Pensions.** Make, and cause each of its Subsidiaries to make, timely payment of all foreign, federal, state, and local taxes or assessments (other than taxes and assessments which Borrower is contesting 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.

**6.4 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 and reasonably satisfactory to Bank. All property policies relating to Collateral shall have a lender's loss payable endorsement showing Bank as lender loss payee and waive subrogation against Bank. All policies (or the loss payable endorsements) shall provide that the insurer must give Bank at least twenty (20) days notice before canceling, amending (other than minor amendments which do not reduce coverage for the Collateral and are otherwise consistent with the provisions hereof), or declining to renew its policy. At Bank's request, Borrower shall deliver certificates of insurance and evidence of all premium payments. Proceeds payable under any policy relating to Collateral 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 \$50,000, in the aggregate, 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 6.4 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

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**6.5 Operating Accounts.** Maintain its and its Subsidiaries' depository, operating, and securities accounts with Bank and Bank's affiliates. 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. Notwithstanding the foregoing, if at any time the balance of Borrower's accounts maintained with Bank and Bank's Affiliates exceeds \$15,000,000, Borrower may maintain depository and securities accounts with Persons other than Bank and its Affiliates, as long as a minimum of \$15,000,000 is maintained at Bank and its Affiliates at all times.

**6.6 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.

**6.7 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, assign 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 or obsolete Equipment that does not constitute Financed Equipment; (c) in connection with Permitted Liens and Permitted Investments; and (d) of licenses for the use of the property of Borrower or its Subsidiaries in the ordinary course of business and licenses that could not result in a legal transfer of title of the licensed property but that may be exclusive in respects other than territory and that may be exclusive as to territory only as to discreet geographical areas outside of the United States.

**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) have a change in management such that any of the Key Persons is no longer actively involved in their applicable position and a replacement reasonably acceptable to Bank is not made within 90 days, or (ii) enter into any transaction or series of related transactions in which the stockholders of Borrower immediately prior to the first such transaction own less than 60% 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 investors so long as Borrower identifies to Bank the venture capital investors prior to the closing of the transaction). Borrower shall not, without at least ten (10) days prior written notice to Bank: (1) add any new offices or business locations, including warehouses (unless such new offices or business locations contain less than Ten Thousand Dollars (\$10,000) 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.** Without the prior written consent of Bank, which shall not be unreasonably withheld, 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, or allow 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.

**7.6 Distributions; Investments.** (a) Directly or indirectly make any Investment other than Permitted Investments, or permit any of its Subsidiaries to do so; or (b) 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

7

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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 \$250,000 per fiscal year.

**7.7 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.

**7.8 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.

**7.9 Compliance.** Become an "investment company" or a company controlled by an "investment company", under the Investment Company Act of 1940 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.

## **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 on any Credit Extension on its due date, or (b) pay interest on any Credit Extension or any other Obligations within three (3) Business Days after such Obligations are due and payable (which three (3) Business Day grace period will not apply to payments due on the applicable Equipment Maturity Date). 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 neglect to perform any obligation in Sections 6.2 and 6.5 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, 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.** (a) Any material portion of Borrower's assets is attached, seized, levied on, or comes into possession of a trustee or receiver and the attachment, seizure or levy is not removed in ten (10) days;

8

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(b) 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 Bank's Affiliate; (c) Borrower is enjoined, restrained, or prevented by court order from conducting a material part of its business; (d) a judgment or other claim in excess of \$100,000 becomes a

Lien on any of Borrower's assets; or (e) a notice of lien, levy, or assessment is filed against any of Borrower's assets by any government agency and not paid within ten (10) days after Borrower receives notice. These are not Events of Default if stayed or if a bond is posted pending contest by Borrower (but no Credit Extensions shall be made during the cure period);

**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 is a party with a third party or parties resulting in a right by such third party or parties, whether or not exercised, which results in the acceleration of 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 business;

**8.7 Judgments.** A judgment or judgments 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) shall be rendered against Borrower and shall remain unsatisfied and unstayed for a period of thirty (30) days after the entry thereof (provided that no Credit Extensions will be made prior to the satisfaction or stay of such judgment); or

**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 of any Loan Document, and such representation, warranty, or other statement is incorrect in any material respect when made.

## **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:

(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) 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. 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. Subject to applicable leases, Borrower grants Bank a non-exclusive license to enter and occupy any of its premises, without charge, to exercise any of Bank's rights or remedies;

(d) demand and receive possession of Borrower's Books relating to Collateral; and

(e) 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) make, settle, and adjust all claims under Borrower's casualty insurance policies; (b) 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

9

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action to terminate or discharge the same; and (c) 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 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 Bank's Liability for Collateral.** So long as Bank complies with 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.

**9.5 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.

**9.6 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 (collectively, "**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 address or facsimile number by giving the other party written notice thereof in accordance with the terms of this Section 10.

10

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If to Borrower:	T2 BIOSYSTEMS, INC. 286 Cardinal Medeiros Ave. Cambridge, Massachusetts 02141 Attn:     Legal Department Fax:     (617) 876-1608
with a copy to:	Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. One Financial Center Boston, Massachusetts 02111 Attn:     Jeffrey M. Wiesen, Esquire Fax:     (617) 542-2241 Email:    jwiesen@mintz.com

If to Bank: Silicon Valley Bank  
One Newton Executive Park, Suite 200  
2221 Washington Street  
Newton, Massachusetts 02462  
Attn: Mr. Clark Hayes  
Fax: (617) 969-5962  
Email: CHayes@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 AND JUDICIAL REFERENCE**

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 if for any reason Bank cannot avail itself of such courts in the Commonwealth of Massachusetts, Borrower accepts jurisdiction of the courts and venue in Santa Clara County, California. NOTWITHSTANDING THE FOREGOING, BANK SHALL HAVE THE RIGHT TO BRING ANY ACTION OR PROCEEDING AGAINST BORROWER OR ITS PROPERTY IN THE COURTS OF ANY OTHER JURISDICTION WHICH BANK DEEMS NECESSARY OR APPROPRIATE IN ORDER TO REALIZE ON THE COLLATERAL OR TO OTHERWISE ENFORCE BANK'S RIGHTS AGAINST BORROWER OR ITS PROPERTY.

**TO THE 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, assign, 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 harmless against: (a) all obligations, demands, claims, and liabilities (collectively, "Claims") asserted by any other party in connection with

11

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the transactions contemplated by the Loan Documents; and (b) all losses or Bank Expenses incurred, or paid by Bank 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 Bank's gross negligence or willful misconduct.

**12.3 Limitation of Actions.** Any claim or cause of action by Borrower against Bank, its directors, officers, employees, agents, accountants, attorneys, or any other Person affiliated with or representing Bank based upon, arising from, or relating to this Agreement or any other Loan Document, or any other transaction contemplated hereby or thereby or relating hereto or thereto, or any other matter, cause or thing whatsoever, occurred, done, omitted or suffered to be done by Bank, its directors, officers, employees, agents, accountants or attorneys, shall be barred unless asserted by Borrower by the commencement of an action or proceeding in a court of competent jurisdiction by (a) the filing of a complaint within one year from the earlier of (i) the date any of Borrower's officer or directors had knowledge of the first act, the occurrence or omission upon which such claim or cause of action, or any part thereof, is based, or (ii) the date this Agreement is terminated, and (b) the service of a summons and complaint on an officer of Bank, or on any other person authorized to accept service on behalf of Bank, within thirty (30) days thereafter. Borrower agrees that such one-year period is a reasonable and sufficient time for Borrower to investigate and act upon any such claim or cause of action. The one-year period provided herein shall not be waived, tolled, or extended except by the written consent of Bank in its sole discretion. This provision shall survive any termination of this Agreement or any other Loan Document.

**12.4 Time of Essence.** Time is of the essence for the performance of all Obligations in this Agreement.

**12.5 Severability of Provisions.** Each provision of this Agreement is severable from every other provision in determining the enforceability of any provision.

**12.6 Amendments in Writing; Integration.** All amendments to this Agreement must be in writing 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, is 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; and (e) as Bank considers appropriate in exercising remedies under this Agreement. 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.

**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 new 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 even though unmatured and

12

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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.

“**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 audit fees and expenses, costs, and expenses (including reasonable attorneys’ fees and expenses) for preparing, 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.

“**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 accounts maintained at Bank.

“**Claims**” are defined in Section 12.2.

“**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

13

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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 on 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.

“**Commodity Account**” is any “commodity account” as defined in the Code with such additions to such term as may hereafter be made.

“**Communication**” is defined in Section 10.

“**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 of 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.

“**Credit Extension**” is any Equipment Advance, or any other extension of credit by Bank for Borrower’s benefit.

“**Default**” means any event which with notice or passage of time or both, would constitute an Event of Default.

“**Default Rate**” is defined in Section 2.2(a).

“**Designated Deposit Account**” is Borrower’s deposit account, account number XXXXXXXXXX, maintained with Bank.

“**Dollars,**” “**dollars**” and “**\$**” each mean lawful money of the United States.

“**Draw Period**” is the period of time from the Effective Date through the earliest to occur of (a) August 30, 2008, and (b) an Event of Default.

“**Effective Date**” is defined in the preamble of this Agreement.

“**Eligible Equipment**” is new and used (a) general purpose computer equipment, office equipment, test and laboratory equipment, furnishings, tools, fixtures, molds, subject to the limitations set forth herein, and (b) Other Equipment that complies with all of Borrower’s representations and warranties to Bank and which is acceptable to Bank in all respects and in which Bank has a first priority Lien.

“**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.

“**Equipment Advance**” is defined in Section 2.1.1(a).

“**Equipment Line**” is an Equipment Advance or Equipment Advances in an aggregate amount of up to Two Million Dollars (\$2,000,000.00) outstanding at any time.

“**Equipment Maturity Date**” is, for each Equipment Advance, forty-seven (47) months after the first calendar day of the month following the Funding Date of such Equipment Advance.

14

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“**ERISA**” is the Employee Retirement Income Security Act of 1974, and its regulations.

“**Event of Default**” is defined in Section 8.

“**Event of Loss**” is defined in Section 2.1.1(d).

“**Final Payment**” is a payment (in addition to and not a substitution for the regular monthly payments of principal plus accrued interest) equal to the aggregate original principal amount of each Equipment Advance multiplied by the Final Payment Percentage, due on the earliest of: (a) the Equipment Maturity Date, (b) the acceleration of the Obligations, or (c) any voluntary or involuntary prepayment, in full, of the Obligations.

“**Final Payment Percentage**” is, for each Equipment Advance, three and three quarters of one percent (3.75%),

“**Financed Equipment**” is all present and future Eligible Equipment in which Borrower has any interest, the purchase of which is financed by an Equipment Advance.

“**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.

“**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.

“**Initial Equipment Advance**” is defined in Section 2.1.1(a).

“**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**” shall be any one of the following positions: Chief Executive Officer, Chief Financial Officer, or Chief Scientific Officer.

“**Lien**” is a mortgage, lien, deed of trust, charge, pledge, security interest or other encumbrance.

“**Loan Documents**” are, collectively, this Agreement, the Perfection Certificate, any note, or notes or guaranties executed by Borrower, and any other present or future agreement between Borrower 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, in connection with this Agreement, or the Loan Documents, 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 30 days prior to the Effective Date, and, its bylaws in current form, each of the foregoing with all current amendments or modifications thereto.

“**Other Equipment**” is leasehold improvements, transferable software licenses and soft costs approved by Bank, including taxes, shipping, freight discounts, installation expenses, and recurring engineering charges.

“**Payment/Advance Form**” is that certain form attached hereto as Exhibit B.

“**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 secured by Permitted Liens;
- (f) other Indebtedness secured by property other than the Collateral in a maximum amount of \$100,000, outstanding at any time; and
- (g) extensions, refinancings, modifications, amendments and restatements of any items of Permitted Indebtedness (a) through (f) 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; and
- (b) Cash Equivalents.

“**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, if they have no priority over any of Bank’s Liens;
- (c) purchase money Liens (i) on Equipment acquired or held by Borrower incurred for financing the acquisition of the Equipment securing no more than \$100,000 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; and



(d) 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.

(e) Liens arising from judgments, decrees or attachments in circumstances not constituting an Event of Default under Section 8.4 or 8.7.

(f) Liens related to (f) under the definition of Permitted Indebtedness.

“**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 Bank’s most recently announced “prime rate,” even if it is not Bank’s lowest rate.

“**Registered Organization**” is any “registered organization” as defined in the Code with such additions to such term as may hereafter be made

“**Responsible Officer**” is any of the Chief Executive Officer, President, Chief Financial Officer, Vice President of Intellectual Property, and Controller of Borrower.

“**Subordinated Debt**” is 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% 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 Affiliates of such Person.

“**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.

[Signature page follows.]

**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:

T2 BIOSYSTEMS, INC.

By /s/ Douglas Levinson  
Name: Douglas Levinson  
Title: President and Chief Executive Officer

BANK:

SILICON VALLEY BANK

By /s/ Clark Hayes  
Name: Clark Hayes  
Title: Relationship Manager

[Signature page to Loan and Security Agreement]

### FIRST LOAN MODIFICATION AGREEMENT

This First Loan Modification Agreement (this “Loan Modification Agreement”) is entered into as of June 26, 2009, by and between **SILICON VALLEY BANK**, a California corporation, with its principal place of business at 3003 Tasman Drive, Santa Clara, California 95054 and with a loan production office located at One Newton Executive Park, Suite 200, 2221 Washington Street, Newton, Massachusetts 02462 (“Bank”) and **T2 BIOSYSTEMS, INC.**, a Delaware corporation with its chief executive office located at 286 Cardinal Medeiros Avenue, Cambridge, Massachusetts 02141 (“Borrower”).

1. **DESCRIPTION OF EXISTING INDEBTEDNESS AND OBLIGATIONS.** Among other indebtedness and obligations which may be owing by Borrower to Bank, Borrower is indebted to Bank pursuant to a loan arrangement dated as of August 30, 2007, evidenced by, among other documents, a certain Loan and Security Agreement dated as of August 30, 2007, between Borrower and Bank (as amended, the “Loan Agreement”). Capitalized terms used but not otherwise defined herein shall have the same meaning as in the Loan Agreement.

2. **DESCRIPTION OF COLLATERAL.** Repayment of the Obligations is secured by the Collateral as described in the Loan Agreement (together with any other collateral security granted to Bank, the “Security Documents”). Hereinafter, the Security Documents, together with all other documents evidencing or securing the Obligations shall be referred to as the “Existing Loan Documents”.

3. **DESCRIPTION OF CHANGE IN TERMS.**

A. Modifications to Loan Agreement.

1 The Loan Agreement shall be amended by deleting the following text, appearing in Section 2.1.1 thereof:

“(b) **Interest Rate; Interest Payment.** Subject to Section 2.2(a), the principal amount outstanding for each Equipment Advance shall accrue interest at a fixed per annum rate equal to one half of one percentage point (0.50%) above the Prime Rate, determined by Bank as of the Funding Date, which interest shall be payable monthly.”

and inserting in lieu thereof the following:

“(b) **Interest Rate; Interest Payment.** Subject to Section 2.2(a), the principal amount outstanding for each Equipment Advance shall accrue interest at a fixed per annum rate equal to: (i) prior to the 2009 Effective Date, one half of one percentage point (0.50%) above the Prime Rate, determined by Bank as of the Funding Date, which interest shall be payable monthly, and (ii) on and after the 2009 Effective Date, the greater of: (A) one half of one percentage point (0.50%) above the Prime Rate, determined by Bank as of the Funding Date, and (B) five and one half of one percent (5.5%), which interest shall be payable monthly.”

2 The Loan Agreement shall be amended by inserting the following new Section 2.1.2 immediately following Section 2.1.1 thereof, entitled “Equipment Advances”:

**“2.1.2 2009 Equipment Advances.**

(a) Availability. Subject to the terms and conditions of this Agreement, during the 2009 Draw Period, Bank shall make advances (each, a “**2009 Equipment Advance**” and, collectively, “**2009 Equipment Advances**”) not exceeding the 2009 Equipment Line. 2009 Equipment Advances may only

be used to finance Eligible Equipment purchased within ninety (90) days (determined based upon the applicable invoice date of such Eligible Equipment) before the date of each 2009 Equipment Advance, and no 2009 Equipment Advance may exceed 100% of the total invoice for Eligible Equipment, excluding taxes, shipping, warranty charges, freight discounts and installation expenses relating to such Eligible Equipment. Notwithstanding the foregoing, the initial 2009 Equipment Advance (the “**Initial 2009 Equipment Advance**”) hereunder may be used to reimburse Borrower for Eligible Equipment purchased on or after September 1, 2008; provided that, the Initial 2009 Equipment Advance is requested within thirty (30) days after the 2009 Effective Date. Unless otherwise agreed to by Bank, not more than 25% of the proceeds of the 2009 Equipment Line shall be used to finance Other Equipment. Each 2009 Equipment Advance, other than the final 2009 Equipment Advance, must be in an amount equal to at least \$50,000. After repayment, no 2009 Equipment Advance may be reborrowed.

(b) Interest Rate; Interest Payment. Subject to Section 2.2(a), the principal amount outstanding for each 2009 Equipment Advance shall accrue interest at a fixed per annum rate equal to the greater of: (i) six and one quarter of one percentage point (6.25%) above the Prime Rate, determined by Bank as of the Funding Date, and (ii) ten and one quarter of one percent (10.25%), which interest shall be payable monthly.

(c) Principal Payment. In addition to the monthly payments of interest, as set forth in Section 2.1.2(b) above, the principal amount of each 2009 Equipment Advance is payable in thirty-six (36) consecutive equal monthly payments of principal beginning on the first calendar day of the month following the Funding Date of such 2009 Equipment Advance and continuing on the first calendar day of each month thereafter. The final payment due on the applicable 2009 Equipment Maturity Date shall include all outstanding principal and all accrued unpaid interest.

(d) Mandatory Prepayment Upon an Acceleration. If the 2009 Equipment Advances are accelerated following the occurrence 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, (ii) the 2009 Final Payment, and (iii) 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 Equipment 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 Equipment Advances advanced by Bank under this Agreement, provided Borrower (i) delivers written notice to Bank of its election to prepay the Equipment Advances at least thirty (30) 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 2009 Final Payment, and (C) 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.”

3 The Loan Agreement shall be amended by deleting the following text, appearing in Section 2.3 thereof:

“(a) Final Payment. The Final Payment, when due hereunder; and”

and inserting in lieu thereof the following:

“(a) Final Payment. The Final Payment and the 2009 Final Payment, when due hereunder; and”

4 The Loan Agreement shall be amended by deleting the following text, appearing in Section 3.2 thereof:

“(a) except as otherwise provided in Section 3.4, timely receipt of the Payment/Advance Form and UCC financing statement covering the Financed Equipment described on Exhibit A.”

and inserting in lieu thereof the following:

“(a) except as otherwise provided in Section 3.4, timely receipt of the Payment/Advance Form;”

5 The Loan Agreement shall be amended by deleting the following text, appearing in Section 3.2 thereof, in its entirety:

“(c) Bank shall have the opportunity to confirm that upon filing the UCC financing statement covering the Eligible Equipment described on Exhibit A, that Bank shall have a first perfected security interest in such Eligible Equipment; and”

6 The Loan Agreement shall be amended by deleting the following, appearing as Section 3.4 thereof:

“**3.4 Procedures for Borrowing**. To obtain an Equipment Advance, Borrower must notify Bank (which notice shall be irrevocable) by facsimile no later than 3:00 p.m. Eastern time one (1) Business Day before the day on which the Equipment Advance is to be made. A Payment/Advance Form must be signed by a Responsible Officer or designee and include a copy of the invoice for the Equipment being financed, together with a UCC Financing Statement authorization covering the Financed Equipment described on Exhibit A and such additional information as Bank may reasonably request at least five (5) Business Days before the proposed Funding Date. If Borrower satisfies the conditions of each Equipment Advance, Bank shall disburse such Equipment Advance by transfer to the Designated Deposit Account.”

and inserting in lieu thereof the following:

“**3.4 Procedures for Borrowing**. To obtain a 2009 Equipment Advance, Borrower must notify Bank (which notice shall be irrevocable) by facsimile no later than 3:00 p.m. Eastern time one (1) Business Day before the day on which the 2009 Equipment Advance is to be made. A Payment/Advance Form must be signed by a Responsible Officer or designee and include a copy of the invoice for the Equipment being financed. If Borrower satisfies the conditions of each 2009 Equipment Advance, Bank shall disburse such 2009 Equipment Advance by transfer to the Designated Deposit Account.”

7 The Loan Agreement shall be amended by deleting the following text appearing in Section 4.1 thereof:

“**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).”

and inserting in lieu thereof the following:

**“4.1 Grant of Security Interest.** Borrower hereby grants Bank, to secure the payment and performance in full of all of the Obligations relating to Section 2.1.1, a continuing security interest in, and pledges to Bank, the 2007 Collateral, wherever located, whether now owned or hereafter acquired or arising, and all proceeds and products thereof. Borrower hereby grants Bank, to secure the payment and performance in full of all of the Obligations (other than the Obligations relating to Section 2.1.1), a continuing security interest in, and pledges to Bank, the 2009 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.”

8 The Loan Agreement shall be amended by inserting the following text at the end of Section 5.2 thereof:

“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.

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 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 commercially 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.”

9 The Loan Agreement shall be amended by deleting the following, appearing as Section 6.2 thereof, in its entirety:

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**“6.2 Financial Statements, Reports, Certificates.** Deliver to Bank: (i) as soon as available, but no later than forty-five (45) days after the last day of each month, a company prepared consolidated balance sheet and income statement covering Borrower’s consolidated operations during the period 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 (except for “going concern” qualifications for development stage companies) on the financial statements from an independent certified public accounting firm acceptable to Bank in its reasonable discretion; (iii) as soon as available, but no later than forty-five (45) days after the last day of Borrower’s fiscal year, Borrower’s financial projections for current fiscal year as approved by Borrower’s Board of Directors; (iv) 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 (v) 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; (vi) 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) or more; and (vii) other financial information reasonably requested by Bank.”

and inserting in lieu thereof the following:

**“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 during the period 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 (except for “going concern” qualifications for development stage companies) on the financial statements from an independent certified public accounting firm acceptable to Bank in its reasonable discretion; (iii) as soon as available, but no later than forty-five (45) days after the last day of Borrower’s fiscal year, Borrower’s financial projections for current fiscal year as approved by Borrower’s Board of Directors; (iv) 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 (v) 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; (vi) 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) or more; and (vii) 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.”

10 The Loan Agreement shall be amended by deleting the following, appearing as Section 6.5 thereof, in its entirety:

**“6.5 Operating Accounts.** Maintain its and its Subsidiaries’ depository, operating, and securities accounts with Bank and Bank’s affiliates. 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. Notwithstanding the foregoing, if at any time the balance of Borrower’s accounts maintained with Bank and Bank’s Affiliates exceeds \$15,000,000, Borrower may maintain depository and securities accounts with Persons other than Bank and its Affiliates, as long as a minimum of \$15,000,000 is maintained at Bank and its Affiliates at all times.”

and inserting in lieu thereof the following:

**“6.5 Operating Accounts.**

(a) Maintain its and its Subsidiaries’ depository, operating, and securities accounts with Bank and Bank’s affiliates.

(b) For each Collateral Account that Borrower 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 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.”

11 The Loan Agreement shall be amended by inserting the following new Section 6.8 immediately following Section 6.7 thereof, entitled “Further Assurances”:

**“6.8 Protection of Intellectual Property Rights.** Borrower shall: (a) protect, defend and maintain the validity and enforceability of any intellectual property material to Borrower’s business; (b) promptly advise Bank in writing of material infringements of any intellectual property material to Borrower’s business; 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.”

12 The Loan Agreement shall be amended by deleting the following, appearing as Section 7.5 thereof:

“**7.5 Encumbrance.** Create, incur, or allow 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.”

and inserting in lieu thereof the following:

“**7.5 Encumbrance.** Create, incur, or allow 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.”

13 The Loan Agreement shall be amended by inserting the following new Section 7.10 immediately following Section 7.9 thereof, entitled “Compliance”:

“**7.10 Maintenance of Collateral Accounts.** Maintain any Collateral Account except pursuant to the terms of Section 6.6(b) hereof.”

14 The Loan Agreement shall be amended by deleting the following, appearing as Section 8.1 thereof:

“**8.1 Payment Default.** Borrower fails to (a) make any payment of principal on any Credit Extension on its due date, or (b) pay interest on any Credit Extension or any other Obligations within three (3) Business Days after such Obligations are due and payable (which three (3) Business Day grace period will not apply to payments due on the applicable Equipment Maturity Date). 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);”

and inserting in lieu thereof the following:

“**8.1 Payment Default.** Borrower fails to (a) make any payment of principal on any Credit Extension on its due date, or (b) pay interest on any Credit Extension or any other Obligations within three (3) Business Days after such Obligations are due and payable (which three (3) Business Day grace period will not apply to payments due on the applicable Equipment Maturity Date or 2009 Equipment Maturity Date). 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);”

15 The Loan Agreement shall be amended by inserting the following text at the end of Section 9.1 thereof:

“(f) 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;

(g) apply to the Obligations 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;

(h) 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; and

(i) 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.”

16 The Loan Agreement shall be amended by deleting the following text, appearing in Section 9.2 thereof:

“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) make, settle, and adjust all claims under Borrower’s casualty insurance policies; (b) 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 (c) transfer the Collateral into the name of Bank or a third party as the Code permits.”

and inserting in lieu thereof the following:

“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.”

17 The Loan Agreement shall be amended by inserting the following new Section 9.7 immediately following Section 9.6 thereof, entitled “Demand Waiver”:

“**9.7 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, 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.”

18 The Loan Agreement shall be amended by deleting the following definitions, appearing in Section 13.1 thereof:

“**“Collateral”** is any and all properties, rights and assets of Borrower described on Exhibit A.”

“ **“Credit Extension”** is any Equipment Advance, or any other extension of credit by Bank for Borrower’s benefit.”

“ **“Obligations”** are Borrower’s obligation to pay when due any debts, principal, interest, Bank Expenses and other amounts Borrower owes Bank now or later, in connection with this Agreement, or the Loan Documents, 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.”

“ **“Other Equipment”** is leasehold improvements, transferable software licenses and soft costs approved by Bank, including taxes, shipping, freight discounts, installation expenses, and recurring engineering charges.”

“ **“Perfection Certificate”** is defined in Section 5.1.”

and inserting in lieu thereof the following:

“ **“Collateral”** is the 2007 Collateral and the 2009 Collateral.”

“ **“Credit Extension”** is any Equipment Advance, 2009 Equipment Advance, or any other extension of credit by Bank for Borrower’s benefit.”

“ **“Obligations”** are Borrower’s obligation to pay when due any debts, principal, interest, the Final Payment, the 2009 Final Payment, Bank Expenses and other amounts Borrower owes Bank now or later, in connection with this Agreement, or the Loan Documents, 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.”

“ **“Other Equipment”** is leasehold improvements, transferable software licenses and soft costs approved by Bank, including taxes, shipping, freight discounts, installation expenses, and non-recurring engineering charges.”

“ **“Perfection Certificate”** is defined in Section 5.1 and as replaced by that certain Perfection Certificate dated as of the 2009 Effective Date, executed by Borrower in favor of Bank.”

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19 The Loan Agreement shall be amended by inserting the following definitions alphabetically in Section 13.1 thereof:

“ **“2007 Collateral”** is any and all properties, rights and assets of Borrower described on Exhibit A.”

“ **“2009 Collateral”** is any and all properties, rights and assets of Borrower described on Exhibit D.”

“ **“2009 Draw Period”** is the period of time from the 2009 Effective Date through the earliest to occur of (a) June 25, 2010, and (b) an Event of Default.”

“ **“2009 Effective Date”** is June 26, 2009.”

“ **“2009 Equipment Advance”** is defined in Section 2.1.2(a).”

“ **“2009 Equipment Line”** is a 2009 Equipment Advance or 2009 Equipment Advances in an aggregate amount of up to One Million Five Hundred Thousand Dollars (\$1,500,000.00) outstanding at any time.”

“ **“2009 Equipment Maturity Date”** is, for each 2009 Equipment Advance, thirty-five (35) months after the first calendar day of the month following the Funding Date of such 2009 Equipment Advance.”

“ **“2009 Final Payment”** is a payment (in addition to and not a substitution for the regular monthly payments of principal plus accrued interest) equal to the aggregate original principal amount of each 2009 Equipment Advance multiplied by the 2009 Final Payment Percentage, due on the earliest of: (a) the 2009 Equipment Maturity Date, (b) the acceleration of the Obligations, or (c) any voluntary or involuntary prepayment, in full, of the Obligations.”

“ **“2009 Final Payment Percentage”** is, for each 2009 Equipment Advance, one and three fifths of one percent (1.6%).”

“ **“Account Debtor”** is any “account debtor” as defined in the Code with such additions to such term as may hereafter be made.”

“ **“Collateral Account”** is any Deposit Account, Securities Account, or Commodity Account.”

“ **“Compliance Certificate”** is that certain certificate in the form attached hereto as Exhibit C.”

“ **“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.”

“ **“Deposit Account”** is any “deposit account” as defined in the Code with such additions to such term as may hereafter be made.”

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“ **“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.”

“ **“Initial 2009 Equipment Advance”** is defined in Section 2.1.2(a).”

“ **“Securities Account”** is any “securities account” as defined in the Code with such additions to such term as may hereafter be made.”

20 The Loan Agreement shall be amended by replacing Exhibit A attached thereto with Exhibit A attached hereto.

21 The Loan Agreement shall be amended by inserting the Compliance Certificate appearing as Exhibit B hereto as Exhibit C thereof.

22 The Loan Agreement shall be amended by inserting Exhibit C attached hereto as Exhibit D thereof.

4. FEES. Borrower shall reimburse Bank for all legal fees and expenses incurred in connection with this amendment to the Existing Loan Documents.

5. **AUTHORIZATION TO FILE.** Borrower hereby authorizes Bank to file UCC financing statements without notice to Borrower, with all appropriate jurisdictions, as Bank deems appropriate, in order to further perfect or protect Bank's interest in the Collateral, 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.
6. **CONSISTENT CHANGES.** The Existing Loan Documents are hereby amended wherever necessary to reflect the changes described above.
7. **RATIFICATION OF LOAN DOCUMENTS.** Borrower hereby ratifies, confirms, and reaffirms all terms and conditions of all security or other collateral granted to Bank and confirms that the indebtedness secured thereby includes, without limitation, the Obligations.
8. **NO DEFENSES OF BORROWER.** Borrower hereby acknowledges and agrees that Borrower has no offsets, defenses, claims, or counterclaims against Bank with respect to the Obligations, or otherwise, and that if Borrower now has, or ever did have, any offsets, defenses, claims, or counterclaims against Bank, whether known or unknown, at law or in equity, all of them are hereby expressly WAIVED and Borrower hereby RELEASES Bank from any liability thereunder.
9. **CONTINUING VALIDITY.** Borrower understands and agrees that in modifying the existing Obligations, Bank is relying upon Borrower's representations, warranties, and agreements, as set forth in the Existing Loan Documents. Except as expressly modified pursuant to this Loan Modification Agreement, the terms of the Existing Loan Documents remain unchanged and in full force and effect. Bank's agreement to modifications to the existing

Obligations pursuant to this Loan Modification Agreement in no way shall obligate Bank to make any future modifications to the Obligations. Nothing in this Loan Modification Agreement shall constitute a satisfaction of the Obligations. It is the intention of Bank and Borrower to retain as liable parties all makers of Existing Loan Documents, unless the party is expressly released by Bank in writing. No maker will be released by virtue of this Loan Modification Agreement.

10. **RIGHT OF SET-OFF.** In consideration of Bank's agreement to enter into this Loan Modification Agreement, Borrower hereby reaffirms and 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 Silicon Valley 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 even though unmatured and regardless of the adequacy of any other collateral securing the loan. 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.
11. **CONFIDENTIALITY.** Bank may use confidential information for the development of databases, reporting purposes, and market analysis, so long as such confidential information is aggregated and anonymized prior to distribution unless otherwise expressly permitted by Borrower. The provisions of the immediately preceding sentence shall survive the termination of the Loan Agreement.
12. **JURISDICTION/VENUE.** Borrower accepts for itself and in connection with its properties, unconditionally, the exclusive jurisdiction of any state or federal court of competent jurisdiction in the Commonwealth of Massachusetts in any action, suit, or proceeding of any kind against it which arises out of or by reason of this Loan Modification Agreement; provided, however, that if for any reason Bank cannot avail itself of the courts of the Commonwealth of Massachusetts, then venue shall lie in Santa Clara County, California. NOTWITHSTANDING THE FOREGOING, BANK SHALL HAVE THE RIGHT TO BRING ANY ACTION OR PROCEEDING AGAINST BORROWER OR ITS PROPERTY IN THE COURTS OF ANY OTHER JURISDICTION WHICH BANK DEEMS NECESSARY OR APPROPRIATE IN ORDER TO REALIZE ON THE COLLATERAL OR TO OTHERWISE ENFORCE BANK'S RIGHTS AGAINST BORROWER OR ITS PROPERTY.
13. **COUNTERSIGNATURE.** This Loan Modification Agreement shall become effective only when it shall have been executed by Borrower and Bank.

*[The remainder of this page is intentionally left blank]*

This Loan Modification Agreement is executed as a sealed instrument under the laws of the Commonwealth of Massachusetts as of the date first written above.

<b>BORROWER:</b>  <b>T2 BIOSYSTEMS, INC.</b>  By: <u>          /s/ John McDonough          </u>  Name: <u>          John McDonough          </u>  Title: <u>          President &amp; CEO          </u>	<b>BANK:</b>  <b>SILICON VALLEY BANK</b>  By: <u>          /s/ Clark Hayes          </u>  Name: <u>          Clark Hayes          </u>  Title: <u>          Relation Manager          </u>
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**EXHIBIT A**

The 2007 Collateral consists of all right, title and interest of Borrower in and to all Equipment financed by Bank, including the following:

Description of Equipment	Make	Model	Serial #	Invoice #

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.

**EXHIBIT B**  
**COMPLIANCE CERTIFICATE**

TO: SILICON VALLEY BANK Date:  
 FROM: T2 BIOSYSTEMS, INC.

The undersigned authorized officer of T2 BIOSYSTEMS, INC. ("Borrower") certifies that under the terms and conditions of the Loan and Security Agreement between Borrower and Bank (the "Agreement"), (1) Borrower is in compliance for the period ending \_\_\_\_\_ with all required covenants except as noted below, (2) there are no Events of Default, (3) all representations and warranties in the Agreement are true and correct in all material respects on this date except as noted below; 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, (4) Borrower, and each of its Subsidiaries, has timely filed all required tax returns and reports, and Borrower has timely paid all foreign, federal, state and local taxes, assessments, deposits and contributions owed by Borrower except as otherwise permitted pursuant to the terms of Section 5.8 of the Agreement, and (5) no Liens have been levied or claims made against Borrower or any of its Subsidiaries relating to unpaid employee payroll or benefits of which Borrower has

not previously provided written notification to Bank. Attached are the required documents supporting the certification. The undersigned certifies that these are prepared in accordance with GAAP consistently applied from one period to the next except as explained in an accompanying letter or footnotes. The undersigned acknowledges that no borrowings may be requested at any time or date of determination that Borrower is not in compliance with any of the terms of the Agreement, and that compliance is determined not just at the date this certificate is delivered. Capitalized terms used but not otherwise defined herein shall have the meanings given them in the Agreement.

Please indicate compliance status by circling Yes/No under "Complies" column.

Reporting Covenant	Required	Complies
Monthly financial statements with Compliance Certificate	Monthly within 30 days	Yes No
Annual financial statement (CPA Audited)	FYE within 180 days	Yes No
Board approved projections	FYE within 45 days	Yes No

The following are the exceptions with respect to the certification above: (If no exceptions exist, state "No exceptions to note.")

T2 BIOSYSTEMS, INC.

**BANK USE ONLY**

Received by: \_\_\_\_\_  
 AUTHORIZED SIGNER

By: \_\_\_\_\_  
 Name: \_\_\_\_\_  
 Title: \_\_\_\_\_

Date: \_\_\_\_\_  
 Verified: \_\_\_\_\_  
 AUTHORIZED SIGNER

Date: \_\_\_\_\_

Compliance Status: Yes No

**EXHIBIT C  
 COLLATERAL DESCRIPTION**

The 2009 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.

**SECOND LOAN MODIFICATION AGREEMENT**

This Second Loan Modification Agreement (this "Loan Modification Agreement") is entered into as of June 25, 2012, by and between **SILICON VALLEY BANK**, a California corporation, with its principal place of business at 3003 Tasman Drive, Santa Clara, California 95054 and with a loan production office located at 275 Grove Street, Suite 2-200, Newton, Massachusetts 02466 ("Bank") and **T2 BIOSYSTEMS, INC.**, a Delaware corporation with its chief executive office located at 101 Hartwell Avenue, Lexington, Massachusetts 02421 ("Borrower").

1. **DESCRIPTION OF EXISTING INDEBTEDNESS AND OBLIGATIONS.** Among other indebtedness and obligations which may be owing by Borrower to Bank, Borrower is indebted to Bank pursuant to a loan arrangement dated as of August 30, 2007, evidenced by, among other documents, a certain Loan and Security Agreement dated as of August 30, 2007, between Borrower and Bank, as amended by a certain First Loan Modification Agreement dated as of June 26, 2009, between Borrower and Bank (as amended, the "Loan Agreement"). Capitalized terms used but not otherwise defined herein shall have the same meaning as in the Loan Agreement.

2. **DESCRIPTION OF COLLATERAL.** Repayment of the Obligations is secured by the Collateral as described in the Loan Agreement (together with any other collateral security granted to Bank, the "Security Documents"). Hereinafter, the Security Documents, together with all other documents evidencing or securing the Obligations shall be referred to as the "Existing Loan Documents".

3. **DESCRIPTION OF CHANGE IN TERMS.**

A. Modifications to Loan Agreement.

1 The Loan Agreement shall be amended by inserting the following new Section 2.1.3 thereto (entitled "Term Loan Advances") to appear immediately following the existing Section 2.1.2 thereof (entitled "2009 Equipment Advances"):

" **2.1.3 Term Loan Advances.**

(a) **Availability.** Subject to the terms and conditions of this Agreement, (i) on the 2012 Effective Date, Bank shall make one (1) advance (the "Initial Term Loan Advance") in an amount equal to Five Hundred Thousand Dollars (\$500,000.00), and (ii) during the Term Loan Draw Period, Bank shall make advances (each, a "Draw Period Term Loan Advance" and, collectively, "Draw Period Term Loan Advances") in an aggregate amount not exceeding the Draw Period Term Loan Amount. The Initial Term Loan Advance and each Draw Period Term Loan Advance are each a "Term Loan Advance" and, collectively, the "Term Loan Advances". In addition to and without limiting the foregoing, each Draw Period Term Loan Advance must be in an amount greater than or equal to the lesser of (Five Hundred Thousand Dollars (\$500,000.00), and (y) the portion of the Draw Period Term Loan Amount remaining undrawn: After repayment, no Term Loan Advance may be reborrowed.

(b) Interest Rate; Interest Payment. Subject to Section 2.2(a), the principal amount outstanding for each Term Loan Advance shall accrue interest at a fixed per annum rate equal to the greater of: (i) three percent (3.0%) above the WSJ Prime Rate, as determined by Bank as of the Funding Date of such Term Loan Advance, and (ii) six and one quarter of one percent (6.25%), which interest shall be payable monthly commencing on the first (1<sup>st</sup>) Payment Date following the Funding Date of such Term Loan Advance.

(c) Principal Payment. Commencing on the applicable Term Loan Amortization Date of each Term Loan Advance and continuing on each Payment Date thereafter, Borrower shall repay such Term Loan Advance in (i) thirty-six (36) equal monthly payments of principal, plus (ii) monthly payments of accrued interest at the rate set forth in Section 2.1.3(b). All outstanding principal and accrued and unpaid interest with respect to each Term Loan Advance, and all other outstanding Obligations with respect to such Term Loan Advance, are due and payable in full on the applicable Term Loan Maturity Date with respect to such Term Loan Advance.

(d) Mandatory Prepayment Upon an Acceleration. If the Term Loan Advances are accelerated by Bank in accordance with Section 9.1 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 on the Term Loan Advances, (ii) the Term Loan Prepayment Premium for each Term Loan Advance, and (iii) all other sums, if any, that shall have become due and payable hereunder, including interest at the Default Rate with respect to any past due amounts.

(e) Permitted Prepayment of Term Loan 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 any Term Loan Advance, at any time, provided Borrower (i) delivers written notice to Bank of its election to prepay such Term Loan Advance 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 on such Term Loan Advance, (B) the Term Loan Prepayment Premium for each Term Loan Advance, and (C) all other sums, if any, that shall have become due and payable hereunder, including interest at the Default Rate with respect to any past due amounts."

2 The Loan Agreement shall be amended by deleting the following text, appearing in Section 2.3 thereof:

" (a) Final Payment. The Final Payment and the 2009 Final Payment, when due hereunder; and"

and inserting in lieu thereof the following:

" (a) Final Payment; Term Loan Prepayment Premium. The Final Payment, the 2009 Final Payment and the Term Loan Prepayment Premium, each when due hereunder; and"

3 The Loan Agreement shall be amended by deleting the following appearing as Section 3.4 thereof (entitled "Procedures for Borrowing"):

" **3.4 Procedures for Borrowing.** To obtain a 2009 Equipment Advance, Borrower must notify Bank (which notice shall be irrevocable) by facsimile no later than 3:00 p.m. Eastern time one (1) Business Day before the day on which the 2009 Equipment Advance is to be made. A Payment/Advance Form must be signed by a Responsible Officer or designee and include a copy of the invoice for the Equipment being financed. If Borrower satisfies the conditions of each 2009 Equipment Advance, Bank shall disburse such 2009 Equipment Advance by transfer to the Designated Deposit Account."

and inserting in lieu thereof the following:

" **3.4 Procedures for Borrowing.** To obtain a 2009 Equipment Advance or Term Loan Advance, Borrower must notify Bank (which notice shall be irrevocable) by facsimile no later than 3:00 p.m. Eastern time one (1) Business Day before the day on which the 2009 Equipment Advance or Term Loan Advance is to be made. A Payment/Advance Form must be signed by a Responsible Officer or designee and, with respect to a 2009 Equipment Advance, include a copy of the invoice for the Equipment being financed. If Borrower satisfies the conditions of each 2009 Equipment Advance or Term Loan Advance, Bank shall disburse such 2009 Equipment Advance or Term Loan Advance by transfer to the Designated Deposit Account."

4 The Loan Agreement shall be amended by inserting the following text to appear at the end of Section 4.1 thereof (entitled "Grant of Security Interest"):

"Borrower acknowledges that it previously has entered, and/or may in the future enter, into Bank Services Agreements with Bank. Regardless of the terms of any Bank Services Agreement, Borrower agrees that any amounts Borrower owes Bank thereunder shall be deemed to be Obligations hereunder and that it is the intent of Borrower and Bank to have all such Obligations secured by the first priority perfected security interest in the Collateral granted herein (subject only to Permitted Liens that expressly have superior priority to Bank's Lien in this Agreement). If this Agreement is terminated, Bank's Lien in the Collateral shall continue until the Obligations (other than inchoate indemnity obligations) are satisfied in full, and at such time, Bank shall, at Borrower's sole cost and expense, terminate its security interest in the Collateral and all rights therein shall revert to Borrower. In the event (a) all Obligations (other than inchoate indemnity obligations), except for Bank Services, are satisfied in full, and (b) this Agreement is terminated, Bank shall terminate the security interest granted herein upon Borrower providing cash collateral acceptable to Bank in its good faith business judgment for Bank Services, if any. In the event such Bank Services consist of outstanding Letters of Credit, Borrower shall provide to Bank cash collateral in an amount equal to (i) one hundred five percent (105.0%) of the face amount of all such Letters of Credit denominated in Dollars, and (ii) one hundred ten percent (110.0%) of the Dollar Equivalent of the face amount of all such Letters of Credit denominated in a Foreign Currency, plus all interest, fees, and costs due or to become due in connection therewith (as estimated by Bank in its good faith business judgment), to secure all of the Obligations relating to such Letters of Credit."

5 The Loan Agreement shall be amended by deleting the following text appearing in Section 6.2 thereof (entitled "Financial Statements, Reports, Certificates"):

" (iii) as soon as available, but no later than forty-five (45) days after the last day of Borrower's fiscal year, Borrower's financial projections for current fiscal year as approved by Borrower's Board of Directors;"

and inserting in lieu thereof the following:

" (iii) as soon as available, but no later than (A) forty-five (45) days after the last day of Borrower's fiscal year, for each fiscal year through and including Borrower's fiscal year ended December 31, 2011, and (B) sixty (60) days after the last day of Borrower's fiscal year, for each fiscal year commencing with the fiscal year ending December 31, 2012 and continuing with each fiscal year

thereafter, Borrower's financial projections for current fiscal year as approved by Borrower's Board of Directors;"

6 The Loan Agreement shall be amended by deleting the following appearing as Section 8.1 thereof (entitled "Payment Default"):

" **8.1 Payment Default.** Borrower fails to (a) make any payment of principal on any Credit Extension on its due date, or (b) pay interest on any Credit Extension or any other Obligations within three (3) Business Days after such Obligations are due and payable (which three (3) Business Day grace period will not apply to payments due on the applicable Equipment Maturity Date or 2009 Equipment Maturity Date). 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);"

and inserting in lieu thereof the following:



- “ **8.1 Payment Default.** Borrower fails to (a) make any payment of principal on any Credit Extension on its due date, or (b) pay interest on any Credit Extension or any other Obligations within three (3) Business Days after such Obligations are due and payable (which three (3) Business Day grace period will not apply to payments due on the applicable Equipment Maturity Date, 2009 Equipment Maturity Date or Term Loan Maturity Date). 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);”
- 7 The Loan Agreement shall be amended by deleting the following appearing as Section 8.3 thereof (entitled “Material Adverse Change”):
- “ **8.3 Material Adverse Change.** A Material Adverse Change occurs;”
- and inserting in lieu thereof the following:
- “ **8.3 Material Adverse Change; Lack of Investor Support.** (a) Prior to the 2012 Effective Date, a Material Adverse Change occurs; or (b) on or after the 2012 Effective Date, (i) Bank reasonably determines, in good faith, that there is a lack of Investor Support, or (ii) Investor Support ceases to be provided to Borrower for any reason;”
- 8 The Loan Agreement shall be amended by inserting the following new Section 9.8 (entitled “Additional Rights and Remedies”) to appear immediately following the existing Section 9.7 thereof (entitled “Application of Payments and Proceeds”):
- “ **9.8 Additional Rights and Remedies.** Without limiting Section 9.1, while an Event of Default occurs and continues, Bank may, without notice or demand, do any or all of the following:
- (a) for any Letters of Credit, demand that Borrower (i) deposit cash with Bank in an amount equal to the sum of (i) one hundred five percent (105.0%) of the aggregate Dollar Equivalent of the face amount of all such Letters of Credit denominated in Dollars, plus (ii) one hundred ten percent (110.0%) of the aggregate Dollar Equivalent of the face amount of all such Letters of Credit denominated in Foreign Currency, plus (iii) all interest, fees, and costs due or to become due in connection therewith (as estimated by Bank in

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its good faith business judgment), to secure all of the Obligations relating to such Letters of Credit, 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; and

- (b) terminate any FX Forward Contracts.”
- 9 The Loan Agreement shall be amended by inserting the following text to appear at the end of Section 12.8 thereof (entitled “Survival”):
- “Without limiting the foregoing, except as otherwise provided in Section 4.1, the grant of security interest by Borrower in Section 4.1 shall survive until the termination of all Bank Services Agreements.”
- 10 The Loan Agreement shall be amended by deleting the following definitions, appearing in Section 13.1 thereof:
- “ **“Credit Extension”** is any Equipment Advance, 2009 Equipment Advance, or any other extension of credit by Bank for Borrower’s benefit.”
- “ **“Loan Documents”** are, collectively, this Agreement, the Perfection Certificate, any note, or notes or guaranties executed by Borrower, and any other present or future agreement between Borrower 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, the Final Payment, the 2009 Final Payment, Bank Expenses and other amounts Borrower owes Bank now or later, in connection with this Agreement, or the Loan Documents, 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.”
- and inserting in lieu thereof the following:
- “ **“Credit Extension”** is any Equipment Advance, 2009 Equipment Advance, Term Loan Advance, or any other extension of credit by Bank for Borrower’s benefit.”
- “ **“Loan Documents”** are, collectively, this Agreement, the Perfection Certificate, any Bank Services Agreement, any note, or notes or guaranties executed by Borrower, and any other present or future agreement between Borrower and/or for the benefit of Bank, all as amended, restated, or otherwise modified.”
- “ **“Obligations”** are Borrower’s obligation to pay when due any debts, principal, interest, the Final Payment, the 2009 Final Payment, the Term Loan Prepayment Premium, Bank Expenses and other amounts Borrower owes Bank now or later, whether under this Agreement, the Loan Agreement or otherwise, including, without limitation, interest accruing after Insolvency Proceedings

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begin and debts, liabilities, or obligations of Borrower assigned to Bank, and the performance of Borrower’s duties under the Loan Documents.”

- 11 The Loan Agreement shall be amended by inserting the following new definitions to appear alphabetically in Section 13.1 thereof:
- “ **“2012 Effective Date”** June 25, 2012.”
- “ **“Bank Services”** are any products, credit services, and/or financial accommodations previously, now, or hereafter provided to Borrower or any of its Subsidiaries by Bank or any Bank Affiliate, including, without limitation, any letters of credit, cash management services (including, without limitation, merchant services, direct deposit of payroll, business credit cards, and check cashing services), interest rate swap arrangements, and foreign exchange services as any such products or services may be identified in Bank’s various agreements related thereto (each, a **“Bank Services Agreement”**).”
- “ **“Bank Services Agreement”** is defined in the definition of “Bank Services” appearing alphabetically in this Section 13.1.”
- “ **“Dollar Equivalent”** is, at any time, (a) with respect to any amount denominated in Dollars, such amount, and (b) with respect to any amount denominated in a Foreign Currency, the equivalent amount therefor in Dollars as determined by Bank at such time on the basis of the then-prevailing rate of exchange in San Francisco, California, for sales of the Foreign Currency for transfer to the country issuing such Foreign Currency.”
- “ **“Draw Period Term Loan Advance”** and **“Draw Period Term Loan Advances”** are defined in Section 2.1.3(a).”
- “ **“Draw Period Term Loan Amount”** is Four Million Dollars (\$4,000,000.00).”
- “ **“Foreign Currency”** means lawful money of a country other than the United States.”

“ **“FX Forward Contract”** is any foreign exchange contract by and between Borrower and Bank under which Borrower commits to purchase from or sell to Bank a specific amount of Foreign Currency on a specified date.”

“ **“Initial Term Loan Advance”** is defined in Section 2.1.3(a).”

“ **“Investor Support”** is the clear intention of Borrower’s investors as a group to continue to fund Borrower in the amounts and timeframe necessary to enable Borrower to satisfy the Obligations as they become due and payable.”

“ **“Letter of Credit”** is a standby or commercial letter of credit issued by Bank upon request of Borrower based upon an application, guarantee, indemnity or similar agreement.”

“ **“Payment Date”** is the first (1st) calendar day of each month.”

“ **“Term Loan Advance”** and **“Term Loan Advances”** are defined in Section 2.1.3(a).”

“ **“Term Loan Amortization Date”** is (a) with respect to the Initial Term Loan Advance, the first (1st) Payment Date following the date that is twelve (12) months after the Funding Date of the Initial Term Loan Advance (provided that if the Funding Date of the Initial Term Loan Advance is also a Payment Date, the Term Loan Amortization Date for the Initial Term Loan Advance shall be the Payment Date that is twelve (12) months following its Funding Date), and (b) with respect to each Draw Period Term Loan Advance, the first (1st) Payment Date following the date that is six (6) months after the Funding Date of such Draw Period Term Loan Advance (provided that if the Funding Date of such Draw Period Term Loan Advance is also a Payment Date, the Term Loan Amortization Date for such Draw Period Term Loan Advance shall be the Payment Date that is six (6) months following its Funding Date).”

“ **“Term Loan Draw Period”** is the period of time from the 2012 Effective Date through the earlier to occur of (a) December 31, 2012, and (b) an Event of Default.”

“ **“Term Loan Maturity Date”** is for each Term Loan Advance, the Payment Date that is thirty-five (35) months after the Term Loan Amortization Date of such Term Loan Advance.”

“ **“Term Loan Prepayment Premium”** shall be an additional fee payable to Bank in an amount equal to:

(a) for a prepayment made on or prior to the first (1st) anniversary of the Funding Date of any Term Loan Advance, two percent (2.0%) of the aggregate outstanding principal amount of such Term Loan Advance as of the date of such prepayment;

(b) for a prepayment made after the first (1st) anniversary of the Funding Date of any Term Loan Advance but on or prior to the second (2nd) anniversary of the Funding Date of such Term Loan Advance, one percent (1.0%) of the aggregate outstanding principal amount of such Term Loan Advance as of the date of such prepayment; and

(c) for a prepayment made after the second (2nd) anniversary of the Funding Date of any Term Loan Advance, Zero Dollars (\$0.00).”

“ **“WSJ Prime Rate”** means the rate of interest published in the “Money Rates” section of The Wall Street Journal, Eastern Edition as the “United States Prime Rate,” even if such rate is not the lowest or best rate available. In the event that The Wall Street Journal, Eastern Edition is not published or such rate does not appear in The Wall Street Journal, Eastern Edition, the WSJ Prime Rate shall be determined by Bank until such time as the WSJ Prime Rate becomes available in accordance with past practices.”

12 The Loan Agreement shall be amended by replacing the Compliance Certificate appearing as Exhibit C thereto with the Compliance Certificate appearing as Exhibit A hereto. On and after the date of this Loan Modification Agreement, all references in the Loan Agreement to the Compliance Certificate shall be deemed to refer to Exhibit A hereto.

4. **FEES.** Borrower shall pay to Bank a commitment fee equal to Ten Thousand Dollars (\$10,000.00), which fee shall be due on the date hereof and shall be deemed fully earned as of the date hereof. Borrower shall also reimburse Bank for all reasonable, documented and out-of-pocket legal fees and expenses incurred in connection with this amendment to the Existing Loan Documents.

5. **CONSISTENT CHANGES.** The Existing Loan Documents are hereby amended wherever necessary to reflect the changes described above.

6. **RATIFICATION OF LOAN DOCUMENTS.** Borrower hereby ratifies, confirms, and reaffirms all terms and conditions of all security or other collateral granted to Bank and confirms that the indebtedness secured thereby includes, without limitation, the Obligations.

7. **NO DEFENSES OF BORROWER.** Borrower hereby acknowledges and agrees that Borrower has no offsets, defenses, claims, or counterclaims against Bank with respect to the Obligations, or otherwise, and that if Borrower now has, or ever did have, any offsets, defenses, claims, or counterclaims against Bank, whether known or unknown, at law or in equity, all of them are hereby expressly WAIVED and Borrower hereby RELEASES Bank from any liability thereunder.

8. **CONTINUING VALIDITY.** Borrower understands and agrees that in modifying the existing Obligations, Bank is relying upon Borrower’s representations, warranties, and agreements, as set forth in the Existing Loan Documents. Except as expressly modified pursuant to this Loan Modification Agreement, the terms of the Existing Loan Documents remain unchanged and in full force and effect. Bank’s agreement to modifications to the existing Obligations pursuant to this Loan Modification Agreement in no way shall obligate Bank to make any future modifications to the Obligations. Nothing in this Loan Modification Agreement shall constitute a satisfaction of the Obligations. It is the intention of Bank and Borrower to retain as liable parties all makers of Existing Loan Documents, unless the party is expressly released by Bank in writing. No maker will be released by virtue of this Loan Modification Agreement.

9. **COUNTERSIGNATURE.** This Loan Modification Agreement shall become effective only when it shall have been executed by Borrower and Bank.

*[The remainder of this page is intentionally left blank]*

This Loan Modification Agreement is executed as a sealed instrument under the laws of the Commonwealth of Massachusetts as of the date first written above.

**BORROWER:**

**T2 BIOSYSTEMS, INC.**

By: /s/ [ILLEGIBLE]

Name: [ILLEGIBLE]

Title: CEO

**BANK:**

**SILICON VALLEY BANK**

By: /s/ [ILLEGIBLE]

Name: [ILLEGIBLE]

Title: Relationship Manager

**EXHIBIT A**  
**COMPLIANCE CERTIFICATE**

TO: SILICON VALLEY BANK  
FROM: T2 BIOSYSTEMS, INC.

Date:

The undersigned authorized officer of T2 BIOSYSTEMS, INC. ("Borrower") certifies that under the terms and conditions of the Loan and Security Agreement between Borrower and Bank (the "Agreement"), (1) Borrower is in compliance for the period ending \_\_\_\_\_ with all required covenants except as noted below; 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, (4) Borrower, and each of its Subsidiaries, has timely filed all required tax returns and reports, and Borrower has timely paid all foreign, federal, state and local taxes, assessments, deposits and contributions owed by Borrower except as otherwise permitted pursuant to the terms of Section 5.8 of the Agreement, and (5) no Liens have been levied or claims made against Borrower or any of its Subsidiaries relating to unpaid employee payroll or benefits of which Borrower has not previously provided written notification to Bank. Attached are the required documents supporting the certification. The undersigned certifies that these are prepared in accordance with GAAP consistently applied from one period to the next except as explained in an accompanying letter or footnotes. The undersigned acknowledges that no borrowings may be requested at any time or date of determination that Borrower is not in compliance with any of the terms of the Agreement, and that compliance is determined not just at the date this certificate is delivered. Capitalized terms used but not otherwise defined herein shall have the meanings given them in the Agreement.

Please indicate compliance status by circling Yes/No under "Complies" column.

<u>Reporting Covenant</u>	<u>Required</u>	<u>Complies</u>
Monthly financial statements with Compliance Certificate	Monthly within 30 days	Yes No
Annual financial statement (CPA Audited)	FYE within 180 days	Yes No
Board approved projections	FYE within 60 days	Yes No

The following are the exceptions with respect to the certification above: (If no exceptions exist, state "No exceptions to note.")

T2 BIOSYSTEMS, INC.

**BANK USE ONLY**

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

Received by: \_\_\_\_\_ AUTHORIZED SIGNER

Date: \_\_\_\_\_

Verified: \_\_\_\_\_ AUTHORIZED SIGNER

Date: \_\_\_\_\_

Compliance Status: Yes No

COMMERCIAL LEASE

## 1. PARTIES:

Columbus Day Realty, Inc., of 231 Andover Street, Wilmington, Massachusetts, (LESSOR), which expression shall include its successors and assigns where the context so admits, does hereby lease to T2 Biosystems, Inc., of 101 Hartwell Avenue, Lexington, MA 02421, (LESSEE), which expression shall include its successors and assigns where the context so admits, and T2 Biosystems, Inc. does hereby lease from LESSOR the Leasehold.

## 2. PREMISES:

Five Thousand Five Hundred Seventy (5,570) square feet more or less, located on the first floor of the building at 231 Andover Street, Wilmington, Massachusetts, as shown on the plan attached hereto as Exhibit A (the "Leasehold").

## 3. TERM:

This Lease shall be for a term ("Term") commencing on the Commencement Date and ending on the Expiration Date unless sooner terminated pursuant to any provisions hereof wherein (i) the Commencement Date is the date of execution of this Lease, (ii) the Expiration Date is the last day of the twenty-fourth (24<sup>th</sup>) month following the Rate Commencement Date and (iii) the Rate Commencement Date is twenty-one (21) days following the Commencement Date.

## 4. BASE RENT:

In addition to other obligations of LESSEE to LESSOR, beginning on the Rate Commencement Date LESSEE shall pay to LESSOR base rent of Forty-Four Thousand Five Hundred Sixty Dollars (\$44,560.00) annually payable in monthly installments of Three Thousand Seven Hundred Thirteen and 33/100 Dollars (\$3,713.33) in advance on the first day of each and every calendar month during the continuance of the term of this Lease.

## 5. ADDITIONAL RENT:

Beginning on the Rate Commencement Date LESSEE shall pay the LESSOR, as additional rent, 46.4% of the Operating Costs of the building. Operating Costs means real estate taxes on the land and building, insurance charges, water charges, snow removal costs, exterior landscaping and maintenance, common area utilities, and any other costs in maintaining, operating or repairing the building, other than costs of a capital nature or LESSOR'S improvements to the Leasehold. Notwithstanding anything to the contrary herein, the following costs shall not be considered Operating Costs: repairs and replacements to the major elements and systems of the building, including but not limited to structural elements, building envelopes, roofs, flashings, gutters, downspouts, exterior walls, parapet, foundations and mechanical/electrical/plumbing systems, as needed to keep the

1

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Leasehold at all times in good and safe order and condition, except to the extent such repairs and replacements are necessitated by LESSEE'S activities, or are specific to LESSEE'S occupancy. LESSOR shall provide LESSEE an estimate of the annual Operating Costs no later than thirty (30) days before the commencement of each year. The estimated annual Operating Costs for the first year following the Rate Commencement Date are Eighteen Thousand Five Hundred Sixty Dollars (\$18,560.00). The LESSEE shall pay 1/12 of the estimated annual Operating Costs (One Thousand Five Hundred Forty-Six and 67/100 Dollars (\$1,546.67) per month for the first year following the Rate Commencement Date), in addition to its regular monthly rent payment. Within thirty (30) days of the end of each year following the Rate Commencement Date, the LESSOR shall provide the LESSEE with a complete accounting for all Operating Costs incurred in the prior year and if there is a balance due after credit for estimate payments, the LESSEE shall pay that amount to the LESSOR within thirty (30) days of receipt of the accounting. If the LESSEE has overpaid for its share of the Operating Costs, the LESSOR shall refund the overpayment to the LESSEE within thirty (30) days of receipt of the accounting. The accounting shall include copies of all canceled checks and invoices for the Operating Costs paid by the LESSOR.

## 6. SECURITY OF LESSEE AND SAFETY:

LESSEE acknowledges that it is LESSEE'S responsibility to maintain security for the Leasehold.

## 7. SNOW AND ICE:

LESSOR shall as promptly as possible remove snow and ice from the parking area and common entryway to this building.

## 8. TOILETS AND PLUMBING:

LESSEE shall be responsible to maintain existing toilets in good condition and repair at all times and to keep same safe and sanitary.

## 9. WINDOWS:

LESSEE is responsible for maintaining all windows and glass on the perimeter of the Leasehold as of the Rate Commencement Date and shall immediately replace any windows damaged during the term of this Lease between the Rate Commencement Date and the Expiration Date, with glass of similar quality to the glass existing at the Rate Commencement Date.

## 10. TRASH AND DEBRIS:

LESSEE is responsible for the prompt, safe, and proper removal and disposal of all trash and debris from the Leasehold, at LESSEE'S expense.

2

## 11. HEAT AND UTILITIES:

LESSEE shall pay for all utilities consumed by LESSEE and/or provided to the Leasehold, including gas and electricity as separately metered. LESSOR shall furnish water for normal laboratory and office use, which charge shall be included as an Operating Cost.

## 12. USE OF LEASED PREMISES:

The LESSEE shall use the Leasehold only for the operation of its business and laboratory practices, except in the case of an assignment or sublet arrangement. LESSOR acknowledges that LESSEE is a life sciences company and intends to use the Leased Premises for general offices, research, development and manufacturing purposes, and represents and warrants that the LESSEE'S intended use is permitted by applicable zoning ordinances and building codes in effect on the Commencement Date. LESSOR represents and warrants to LESSEE that as of the Commencement Date, but without regard to the use for which LESSEE will use the Leasehold, the Leasehold systems are in good working order, the Leasehold building structure is in good repair and the Leasehold does not violate any covenants or restrictions or any applicable building code, regulation or ordinance in effect on the Commencement Date. In the event it is determined this representation and warranty has been violated, then it shall be the obligation of the LESSOR, at LESSOR'S sole cost and expense, to rectify any such violation. No activity, trade, or occupation shall be conducted in the Leasehold or use made thereof which will be hazardous, obnoxious, unlawful, improper, noisy, or offensive, or contrary to any law in force in the city or town in which the premises are situated. Other than the permitted use set forth in this Section 12, the LESSEE shall not permit any use of the Leasehold which will make voidable any insurance on the property of which the Leasehold is a part, or on the contents of said property or which shall be contrary to any law or regulation from time to time established by the New England Fire Insurance Rating Association, or any similar body succeeding to its powers. The LESSEE shall on demand reimburse the LESSOR, and all other tenants, all extra insurance premiums caused by the LESSEE'S use of the premises.

13. MAINTENANCE OF PREMISES:

LESSEE agrees to maintain the interior of the Leasehold and the mechanical equipment serving and dedicated to the Leasehold including, without limitation, the dedicated HVAC equipment, during the lease term and during any extensions or renewals in good repair and condition and to surrender the Leasehold at termination in

the same condition as it was at the Commencement Date or as it may be improved during the term of this Lease reasonable wear and tear excepted. LESSEE shall not permit the Leasehold to be overloaded, damaged, stripped or defaced nor to suffer any waste.

LESSOR agrees to (i) maintain the common areas and utilities during the Lease term and during any extensions or renewals, in good repair and condition, and (ii) repair and replace during the Lease term and during any extensions or renewals, the major elements and systems of the Leasehold including but not limited to its structural elements, building envelop, roofs, flashing, gutters, downspouts, exterior walls (exclusive of all glass and exclusive of all interior doors), parapet, foundations, underground utility and sewer pipes outside the exterior walls of the building and mechanical/electrical/plumbing systems bringing utilities to the Leasehold or other areas of the building, as needed, at LESSOR'S sole cost, except repairs rendered necessary by the negligence of LESSEE, its agents, its employees or invitees.

14. SIGNS:

LESSEE shall not place any signs visible from the exterior of the building or any signs in any common area without the expressed, written consent of the LESSOR. Said consent shall not be unreasonably withheld, conditioned or delayed. Notwithstanding the above, LESSOR hereby consents to the following: signage on the front door of the space with T2Biosystems, Inc., logo as well as a directional sign in the parking lot area showing the location of T2.

15. ALTERATIONS/ADDITIONS:

The LESSEE shall not make structural alterations or additions to the Leasehold. Beginning with the Rate Commencement Date, LESSEE may make nonstructural alterations provided the LESSOR consents thereto in writing, which consent shall not be unreasonably withheld, conditioned or delayed, except as otherwise provided in this Lease. LESSEE shall obtain all necessary governmental permits. All such allowed alterations shall be at LESSEE'S expense and shall be in quality at least equal to the present construction. LESSEE shall not permit any mechanics' liens, or similar liens, to remain upon the Leasehold for labor and material furnished to LESSEE or claimed to have been furnished to LESSEE in connection with work or character performed or claimed to have been performed at the direction of LESSEE and shall cause any such lien to be released of record forthwith without cost to LESSOR.

16. ASSIGNMENT/ SUBLEASING:

The LESSEE shall not assign or sublet the whole or any part of the Leasehold without LESSOR'S prior written consent. Said consent shall not be unreasonably withheld, conditioned or delayed. Notwithstanding such consent, LESSEE shall remain liable to

LESSOR for the payment of all rent (base and otherwise) for the full performance of the covenants and conditions of this Lease.

No LESSOR consent or approval is required for any subletting or assignment to any entity controlled by, under common control with, or controlling LESSEE, or in connection with any LESSEE merger, consolidation, reorganization or in connection with the sale of substantially all of LESSEE assets.

17. SUBORDINATION:

So long as LESSEE shall not be disturbed in its possession hereunder, this Lease shall be subject and subordinate to any and all mortgages, deeds of trust and other instruments in the nature of a mortgage, now or at any time hereafter placed on the property of which the Leasehold is a part. LESSEE shall, when requested, promptly execute and deliver such written instruments as shall be necessary to show the subordination of this Lease to said mortgages, deeds of trust or other such instruments in the nature of a mortgage, provided that such instruments shall state that in the event such mortgagee shall succeed to LESSOR's interest in the Property, LESSEE's leasehold interest and its rights under this Lease shall not be disturbed.

18. LESSOR'S and LESSEE'S ACCESS:

The LESSOR or agents of LESSOR may, at reasonable times upon prior notice to LESSEE, enter to view the Leasehold and make repairs and alterations as LESSOR should elect to do at its expense as long as LESSOR makes reasonable efforts not to interfere or disrupt the operation of the LESSEE'S business while making such repairs or alterations. LESSOR may show the Leasehold to others at reasonable times upon prior notice during the six (6) months before the expiration of the original term or any extensions or renewals, may affix to any suitable part of the Leasehold a notice for letting or selling the Leasehold or property of which the Leasehold is a part and keep the same so affixed without hindrance or molestation. LESSEE shall have access to the Leasehold twenty-four (24) hours each day, seven (7) days each week.

19. INDEMNIFICATION AND LIABILITY:

The LESSEE hereby indemnifies, exonerates, and shall save the LESSOR harmless from all loss, damage, liability, or cost occasioned by the breach of any covenant or provision of this Lease by LESSEE or by any nuisance made or suffered on the Leasehold by LESSEE, except where such claims arise out of the negligence or willful misconduct of LESSOR, its servants, agents or employees. This includes but is not limited to legal fees, constable or sheriff's fees, storage, moving and rigging costs, court costs, and repair costs.

The LESSOR hereby indemnifies, exonerates, and shall save the LESSEE harmless from all loss, damage, liability, or costs occasioned by the breach of any

covenant or provision of this Lease by LESSOR or by any nuisance made or suffered in any part of the building which is not part of the Leasehold by LESSOR except where such claims arise out of the negligence or willful misconduct of the LESSEE, its servants, agents or employees. This includes but is not limited to legal fees, constable or sheriff's fees, storage, moving and rigging costs, court costs, and repair costs.

20. LESSEE'S LIABILITY INSURANCE:

The LESSEE shall maintain with respect to the Leasehold, commercial general liability insurance written with the following limits:

General Aggregate	\$	2,000,000.00
Products and Complete Operations Aggregate	\$	1,000,000.00
Personal and Advertising Limit — each occurrence	\$	1,000,000.00
Damage to Rented Premises	\$	500,000.00
Medical Expenses		10,000.00

The insurance shall be written with responsible companies qualified to do business in Massachusetts and in good standing therein, rated A- or better by A.M. Best, insuring the LESSOR as well as LESSEE against injury to persons or damage to property as provided. The LESSEE shall deposit with the LESSOR certificates for such insurance at or prior to the commencement of the term. All such insurance certificates shall provide that such policies shall not be canceled without at least ten (10) days prior written notice to each insured named therein.

LESSOR agrees that during the term of this Lease, LESSOR shall keep the Leasehold and building insured in an amount not less than 100% of the full insurable value thereof, with responsible companies qualified to do business in Massachusetts and in good standing therein, rated A- or better by A.M. Best.

21. FIRE, CASUALTY, EMINENT DOMAIN:

Should a substantial portion of the Leasehold, or of the property of which it is a part, be substantially damaged by fire or other casualty, or be taken by eminent domain, the LESSOR shall, within thirty days of such damage or other casualty or notice of taking by eminent domain, notify LESSEE of LESSOR'S reasonably estimated time to repair such casualty or other damage or to address LESSEE impact arising from the proposed taking. In the event of fire or other casualty, LESSOR shall, to the limit of insurance proceeds and as soon as reasonably possible after insurance adjustment, repair or restore the Leasehold to substantially the same condition as it was in immediately prior to such fire or casualty. When such fire, casualty, or taking deprives the LESSEE of the use and/or occupancy of the Leasehold or a substantial portion thereof, a just and proportionate abatement of rent shall be made until such time as the premises

6

are repaired or restored as required by this Section 21. LESSEE may elect to terminate this Lease if:

(i) the LESSOR'S estimated time to repair and/or to address the taking, exceeds 210 days from the date of damage or destruction or taking; (ii) the repairs or restoration are not completed within 210 days from the date of the damage or destruction or taking; (iii) LESSEE'S access to the Leasehold is materially adversely affected or (iv) the damage occurs during the year preceding the expiration of the term of this Lease and the building or the Leasehold are damaged or destroyed to the extent of 50% or more of its insurable value. Rent shall abate from the date of damage or destruction to the date of termination or completion of repairs if LESSEE cannot conduct its normal business activities on the Leasehold and rent shall abate proportionately if LESSEE continues its normal business activities on the Leasehold.

If at any time during the last six (6) months of the term of this Lease there is damage to the Leasehold, whether or not an Insured Loss, to the extent of 50% or more of its insurable value, LESSOR may at LESSOR'S option cancel and terminate this Lease as of the date of occurrence of such damage by giving written notice to LESSEE of LESSOR'S election to do so within forty-five (45) days after the date of occurrence of such damage. In the event that LESSEE has an option to extend or renew this Lease, and the time within which set option may be exercised has not yet expired, LESSEE shall exercise such option, if it is to be exercised at all no later than thirty-five (35) days after the occurrence of an Insured Loss to the extent of 50% or more of its insurable value during the last six (6) months of the term of this Lease. If LESSEE duly exercises such option during said thirty-five (35) day period, LESSOR shall, at LESSOR'S expense, repair such damage as soon as reasonably possible and this Lease shall continue in full force and effect. LESSEE shall be entitled to the value of its Leasehold in any eminent domain proceedings to the extent that LESSOR receives proceeds for same. In the event of a partial taking which does not result in termination of the Lease, rent and other charges will be permanently and equitably abated.

22. DEFAULT AND BANKRUPTCY: In the event that:

- (a) The LESSEE shall default in the payment of any installment or rent or other sum herein specified and such default shall continue for ten (10) days after written notice thereof; or
- (b) The LESSEE shall default in the observance or performance of any other of the LESSEE'S covenants, agreements, or obligations hereunder and such default shall not be cured within thirty (30) days after written notice thereof, provided, that, if

7

such default is curable but cure cannot reasonably be effected within such thirty (30) day period, such default shall not be a default hereunder so long as LESSEE promptly commences cure within such thirty (30) day period and thereafter diligently prosecutes such cure to completion; or

- (c) The LESSEE shall be declared bankrupt or insolvent according to law, or, if any assignment shall be made of LESSEE'S property for the benefit of creditors,

then the LESSOR may, without prejudice to any remedies which might otherwise be available for arrears of Base Rent and Additional Rent or any other charges or preceding breach of covenant, immediately or at any time thereafter while such failure continues terminate this Lease by giving notice to LESSEE.

The LESSEE shall indemnify the LESSOR against all loss of rent and other payments which the LESSOR may incur by reason of such termination during the residue of the term but, in the event that the Leasehold or part thereof shall be relet by LESSOR (and LESSOR hereby agrees to use diligent efforts to relet the Leasehold), LESSEE shall be entitled to a credit in the net amount of rent received by LESSOR in reletting, after deduction of all reasonable expenses incurred in reletting the Leasehold and in collecting the rent in connection therewith.

If the LESSEE shall default, after reasonable notice thereof, in the observance or performance of any conditions or covenants on LESSEE'S part to be observed or performed under or by virtue of any of the provisions in any article of this Lease, the LESSOR, without being under any obligation to do so and without thereby waiving such default, may remedy such default for the account and at the expense of the LESSEE.

23. NOTICE:

Any notice from the LESSOR to the LESSEE relating to the Leasehold or to the occupancy thereof, shall be deemed duly served, if mailed to the Leasehold, registered or certified mail, return receipt requested, postage prepaid, addressed to the LESSEE. Any notice from the LESSEE to the LESSOR relating to the Leasehold or to the occupancy thereof, shall be deemed duly served, if mailed to the LESSOR'S address set forth in Paragraph 1 of this Lease by registered or certified mail, return receipt requested, postage prepaid, or at such address as the LESSOR may from time to time advise in writing.

24. SURRENDER:

The LESSEE shall at the expiration or other termination of this Lease remove all LESSEE'S goods and effects from the Leasehold, (including without hereby limiting the generality of the foregoing, any and all signs and lettering affixed or painted by the

8

LESSEE, either inside or outside the Leasehold). LESSEE shall deliver to the LESSOR the Leasehold and all keys, locks thereto, and other fixtures connected therewith and all alterations and additions made to or upon the Leasehold, in the same condition as they were at the Commencement Date, or as they were put in during the term hereof, reasonable wear and tear and damage by fire or other casualty only excepted. In the event of the LESSEE'S failure to remove any of LESSEE'S property from the Leasehold, after surrender of the Leasehold as described above, LESSOR is hereby authorized, without liability to LESSEE for loss or damage thereto, and at the sole risk of LESSEE, to remove and store any of the property at LESSEE'S expense, or to retain same under LESSOR'S control or to sell at public or private sale, without notice any or all of the property not so removed and to apply the net proceeds of such sale to the payment of any sum due hereunder, or to destroy such property. The LESSEE, however, notwithstanding anything to the contrary herein provided, shall have the right, during or prior to, termination of its occupancy to remove all Leasehold improvements made by LESSEE on the condition that LESSEE will repair all damage caused by such removal and will restore the Leasehold to its original condition.

25. OPTION TO EXTEND:

If the LESSEE is then current in all payments and is not then in breach or default of this Lease, LESSEE shall have the option to extend this Lease for one twelve (12) month period by providing no less than six (6) months prior to the expiration of the then lease term a written and signed notice of LESSEE'S election to so extend, mailed via U.S. postage prepaid, certified mail, return receipt requested. Said extension shall be on the same terms and conditions as the original lease except that the base rent shall be at a rate of Nine Dollars (\$9.00) per square foot. If the LESSEE exercises its option to extend this Lease for said twelve (12)-month period, and at the end of said period the LESSEE is then current in all payments and not in breach or default of this Lease, LESSEE shall have an additional option to extend this Lease for another twelve (12)-month period by providing no less than six (6) months prior to the expiration of the extended term a written and signed notice of the LESSEE'S election to exercise this additional extension, mailed via U.S. postage prepaid, certified mail, return receipt requested. The extension for this additional one-year term shall be on the same terms and conditions as the original Lease, and the base rent shall be at the rate of \$9.00 per square foot.

26. LESSOR OR LESSEE:

bind and inure to the benefit of the heirs, legal representatives, successors and assigns of the parties hereto.

27. MISCELLANEOUS PROVISIONS:

- (a) Modification: This Lease may not be modified orally or in any other manner other than by an agreement in writing signed by all of the parties to this Lease or their respective successors in interest.
- (b) Effect of Headings: The titles or headings of the various articles hereof are intended solely for convenience of reference, and are not intended for any purpose whatsoever to modify, explain, or place any construction upon any of the provisions of this Lease.
- (c) Time of Essence: Time is of the essence as to all provisions of this Lease.
- (d) Applicable Law: This Lease is executed in the Commonwealth of Massachusetts and is to be interpreted according to the laws of the Commonwealth of Massachusetts excluding any Massachusetts choice of law principles and/or laws that may direct the application of the laws of another jurisdiction.
- (e) Severability: If any provision of this Lease, or portion of such provision or the application thereof to any person or circumstances is invalid, the remainder of the Lease (or remainder of such provision) and the application thereof to other persons or circumstances shall not be effected thereby.

28. RENOVATIONS AND COSTS:

The LESSEE has requested the LESSOR to make renovations and the LESSEE has agreed to pay for this work. It is presently estimated that the renovations will cost approximately \$99,926.00, which amount will not increase without the LESSEE'S consent. LESSOR shall complete all of LESSEE'S work in good and workmanlike manner, fully paid for and free from liens, in accordance with the plans and specifications approved by LESSOR and LESSEE as provided in Exhibit B attached hereto and in compliance with all applicable federal, state and local laws, ordinances, building codes and regulations and the LESSEE shall pay the LESSOR the total cost of these renovations. These payments shall not be considered rent. LESSEE shall make payment for the renovations within thirty (30) days of receipt of the final invoice.

In the event LESSOR fails to complete LESSEE'S work by the Rate Commencement Date the rent and other charges will be equitably abated.

29. SECURITY DEPOSIT:

None

30. QUIET ENJOYMENT:

The LESSEE, upon paying the rent and all additional charges provided for herein, and performing all of the other terms and conditions of this Lease, shall quietly have and enjoy the Leasehold during the term of this Lease without hindrance by anyone claiming by, under or through the LESSOR, subject, however, to the terms of this Lease.

31. PARKING:

LESSOR represents and warrants that there are 28 unassigned parking spaces in the parking lot. LESSEE may use fourteen (14) of the unassigned parking spaces for its employees and visitors; ten (10) on the side of the building and four (4) directly across the lot for parking of registered motor vehicles. LESSEE acknowledges that there are presently a sufficient number of unassigned parking spaces to meet its present and anticipated future needs, so long as LESSOR does not intensify the occupancy of the building and/or the property without adding additional spaces.

32. ENVIRONMENTAL CLAIMS:

LESSOR hereby agrees to indemnify LESSEE and hold it harmless from and against all claims, liabilities, demands and costs arising from or relating to environmental contamination and/or products and/or hazardous materials at the Leasehold, whether claimed, discovered or existing now or hereafter, except for contamination and/or products and/or hazardous materials caused or generated by LESSEE. LESSEE warrants that it will take best practice measures to prevent contamination of the Leasehold and will pay all costs associated with removal of contamination and/or products and/or hazardous materials it has introduced to the Leasehold and hereby agrees to indemnify LESSOR and hold it harmless from and against all claims, liabilities, demands and costs arising from or relating to environmental contamination and/or products and/or hazardous materials introduced by LESSEE at the Leasehold during the term of its occupancy.

33. MORTGAGE OF LEASED PREMISES:

LESSOR warrants and represents that it owns the premises in fee simple and there are no mortgages, restrictions, easements or encumbrances affecting the building or the Leasehold as of the date hereof

34. BROKERAGE COMMISSION.

LESSOR and LESSEE represent and warrant to each other that neither has dealt with any broker, finder or agent, and that no commissions fees or compensation of any kind are due and payable in connection herewith to any broker, agent, commission salesperson or other person.

35. FORCE MAJEURE

LESSOR and LESSEE shall each be excused for the period of any delay in the performance of any obligation hereunder when prevented from so doing by a cause or causes beyond its control, including all civil commotion, war, war-like operations, invasion, rebellion, hostilities, military of usurped power, sabotage, fire or other casualty, or through acts of God; provided, that nothing contained in this Section or elsewhere in this Lease shall be deemed to excuse or permit any delay in the payment of rent, or any delay in the cure of any default which may be cured by the payment of money.

36. ENTIRE AGREEMENT; MERGER:

This Lease and any exhibits hereto, embody the entire agreement and understanding between the parties respecting the Lease and the Leasehold and supersedes all prior negotiations, agreements and understandings between the parties, all of which are merged herein.

37. WAIVER OF SUBROGATION:

LESSOR and LESSEE each agree that neither LESSOR nor LESSEE will have any claim against the other for any loss, damage or injury which is covered by insurance carried or required to be carried by the terms hereunder by either party, notwithstanding the negligence of either party in causing the loss, and each agree to have their respective insurers issuing the

insurance described in Section 20 waive any rights of subrogation that such companies may have against the other party. Each party agrees to obtain such an agreement from its insurer if the policy does not expressly permit a waiver of subrogation.

IN WITNESS WHEREOF, the LESSOR and LESSEE have hereunto set their hands and common seals this 6<sup>th</sup> day of May, 2013.

COLUMBUS DAY REALTY, INC

T2 BIOSYSTEMS, INC.

By:           /s/ [ILLEGIBLE]            
Its President

By:           /s/ [ILLEGIBLE]            
Its CFO

By:           /s/ [ILLEGIBLE]            
Its Treasurer

\_\_\_\_\_

Commencement Date 5/6/13

**EXHIBIT A**

T2 Biosystems Wilmington Space needs:

**Room 1:**

- Take down Shelves
- Epoxy Paint Room
- Fix Ceiling by Sprinkler
- Install HEPA filter
- Open up rooms so they connect, see plan
- Motion Sensor for light
- Caulk around cove base, tile floor, electrical
- Retile Entire Floor

**Room 2:**

- Retile Floor
- Epoxy Paint
- Install HEPA Filter
- Install Door Closer
- Install Card Reader on Entry Door
- Install Emergency Power Outlet
- Caulk around cove base, tile floor, electrical
- Motion Sensor for Light
- Check Ceiling Tiles

**Room 3:**

- Check/Replace Ceiling tiles
- Install Sanitary handles provided by T2
- Motion Sensor for Light
- Remove all piping to above ceiling
- Replace Tile Floor and Cove Base
- Install 2 Emergency Power outlets
- Epoxy Paint Room
- Install Door Closer
- Fix door Jam
- Caulk around cove base, tile floor, electrical
- Check Data/Electrical Plugs

**Room 4:**

- Install Double door with Closer, paint
- Install card reader
- Replace Tile Floor
- Install drop Vinyl Ceiling, sprinklers, lights, move return, install diffusers
- Remove Vacuum Line
- Patch paint as needed
- Emergency power outlet

- 
- Install pipe through wall with quick disconnects
  - Install door closer to office area
  - Rewrap duct work lower than the new ceiling
  - Provide option pricing for encasement in Drywall, paint — Not included at this time

**Room 5:**

- Tile floor
- Cove Base
- Check lamps

**Room 6:**

- Raise exhaust above ceiling, cap
- Replace ceiling tiles — As required
- Tile entire floor
- 120v circuit for modular clean room
- Emergency power outlet



Paint as need

**General Facility Needs 7 (throughout):**

- Replace ceiling tiles as needed
- Relamp as needed
- Check data wiring for integrity
- Check electrical for integrity
- Remove hanging data wiring
- Misc patching and painting
- Install natural gas generator
  - provide break out for
  - 100 amp vs. 200amp
  - Electrical portion
  - Plumbing portion, contractor responsible for all gas work
  - Pad
  - Overhead
- Permit drawing cost - Separate purchase order

- Emergency power outlet in server room
- Balance of entire space and start up of HVAC
- Door Hardware for Card Readers
- Facility Signage Allowance
- Contact Controls contractor (scope was provide to him by T2)
  - pricing for 3 card readers
  - alarm point monitoring for lab HVAC, and 3 points
  - programming of card readers/BMS



April 30, 2013

T2 Biosystems  
101 Hartwell Ave  
Bedford, Ma

Att: Jason Bruetsch

Re: Renovations at 231 Andover St. Wilmington, MA

**PROPOSAL**

Perform tenant renovations at above address:  
Please note that work is being done at our cost as it is in both our best interests to do so.

Work to include the following:

- Remove existing vct in lab areas, prep floor, supply and install vct and new vinyl base
- Check power receptacles and remove misc hanging data wiring from the ceiling
- Install 200 AMP generator on concrete pad outside tenant space, including crank case heater, gas piping and electrical, including power outlets for 3 refrigerators (8.8 amps each), 1 freezer (13.5 amps), and server room/phone closet (13 amps)
- Paint walls and doors in lab area
- Supply one circuit and wire lights and hepa filters for modular clean room
- Modify existing opening at the rear of the space with drywall to accommodate new double door with removable panel, paint disturbed areas
- Replace existing damage ceiling tiles in all areas
- Startup of existing HVAC roof top units, provide certified balancing report
- Johnson Controls Inc. Allowance of \$23,600.00 for work as described on their proposal (attached)
- Supply 2 mag locks for installation by JCI
- Allowance (\$3,000) for signage on front door and directional sign in parking lot
- Cap and raise exhaust in large clean area
- Cap existing air/nitrogen lines in labs
- Supply and install 2' x 2' vinyl faced sheetrock tile with 15/16" white ceiling grid
- Relocate sprinkler heads as needed
- Supply and install 24 — three lamp prismatic lens fixtures in new acoustical ceiling
- Allowance to rekey existing door locks (\$350)
- Confirm data wiring is working in all locations
- Supply and install five door closers
- Install motion light switch for gowning and clean room

231 ANDOVER ST, WILMINGTON, MA 01887 TELEPHONE (978) 694-4111 FAX (978) 694-9226 Email [www.sassoconstruction.com](http://www.sassoconstruction.com)

Install two sets of sanitary handles for gowning/clean room — handles supplied by others Cut and frame 4' wide opening in existing partition between gowning and supply closet Supply and install hepa filters in gowning and supply closet

TOTAL PRICE

\$99,926.00

Alternate 1:

Supply 100 AMP generator in lieu of 200 AMP with other related work as detailed above

DEDUCT \$5,190.00

/s/ Anthony Pimentel  
 Anthony Pimentel  
 Sasso Construction Co., Inc.

Note: This proposal may be withdrawn by us if not accepted within 30 days.

JOHNSON CONTROLS INC.  
 39 SALEM STREET  
 LYNNFIELD, MA 01940

April 19, 2013

Project: T2 BIO 231 Andover St — Building Build Out — Card Access Management System and BMS

Our price of \$23,600. is based on the following list of scope items.

- Furnish and install an extension to the Johnson Controls PEGASYS 2000 LE Card Access System and JCI BMS system
- Furnish and install one CK-721A
- Furnish and install three card readers.
- Furnish and install two push buttons serving the two magnetic locks.
- Furnish and install three motion detectors for request to exit.
- Furnish and install one JCI NCE Network Control Engine.
- Furnish and install three alarm jacks and wiring.
- Furnish and install monitoring of the following HVAC points.
  1. Lab RTU Discharge air temperature
  2. Lab RTU Flow (via flow switch)
  3. Lab RTU Room temperature
- Electrical wiring and termination.
- Programming, supervision, checkout, engineering, drawings, taxes and one year warranty.

Exclusions:

- Overtime
- Door strikes
- Magnetic door holders
- I/P drops or IT Network Connection
- JCI ADS server

If you have any questions or concerns please don't hesitate to call me at 1-781-224-5259.

Sincerely  
 JOHNSON CONTROLS

Approved by:

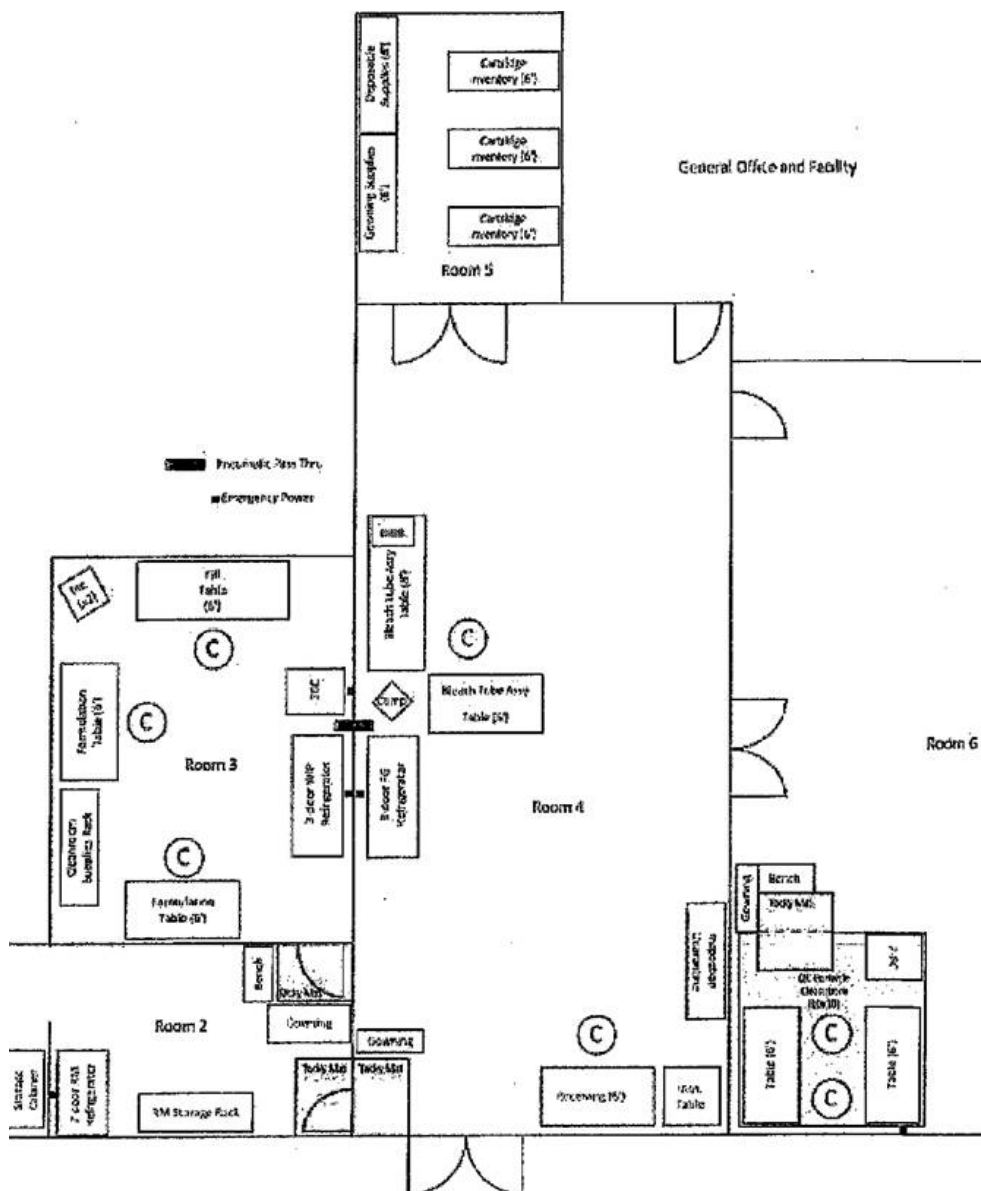
/s/ Michael Beggan  
 Michael Beggan  
 Account Executive

Signature Date

Facility Work Required to Move in Wish List

	Cost
Tile and Floor Work Total Cost \$9,900 Cost to T2Bio	\$ 4,900.00
Misc floor prep	\$ 1,500.00
Check Power Receptacles and remove misc hanging Data Wiring from the ceiling	no charge
Emergency Generator 200 amp	\$ 32,150.00
Emergency Generator 100 amp	
Emergency Power Outlets for:	Included in Item 3
3 Refrigerators 8.8 amps each	
1 Freezer 13.5 amps	
Server room/Phone Closet 13 amps	
Spare room on Generator 40 amps	
Miscellaneous Patching and painting Paint new wall and doors	\$ 1,650.00
Electrical for Modular Clean room	\$ 2,900.00
Double door separating loading area/seal up wall painting doors included in line 9	\$ 4,475.00
Misc Ceiling tiles	no charge
Start up of HVAC/balance space - certified balancer	\$ 1,100.00
Connect JCI for BMS JCI Budget	\$ 23,600.00
JCI card access Supply mag locks and install in two locations	\$ 1,300.00
Signage on front door/Directional Sign in Parking lot Allowance	\$ 3,000.00
Cap and raise exhaust in large clean area/Replace ceiling tiles Also remove air return grille above door and relocate into new ceiling	\$ 3,400.00
Cap existing air/nitrogen lines in lab in clean rooms	included with gen work
Vinyl Coated tile Ceiling in open area	\$ 2,900.00
Lower sprinkler heads	\$ 1,750.00
Supply and install 24 - 3 lamp prismatic lens fixtures	\$ 3,542.00
Door Locks/Keys Budget	\$ 350.00
Check lights/relamp as needed	no charge
Confirm Data Wiring is Working in all locations	\$ 450.00
Install door closers on clean room doors/door connecting office to lab/new loading door 5 locations	\$ 1,300.00
Motion light switch for gowning and clean room	\$ 1,100.00
Sanitary handles for Gowning/Clean Room (Push/Pull Handles) two sets - handles by others	\$ 250.00
Install cased opening(4' wide) between gowning room and supply closet	\$ 1,350.00
Permits	\$ 1,600.00
Dumpster	\$ 575.00
Heppa Filters in two small rooms	\$ 4,784.00

Wilmington Facility  
Reagent Manufacturing / QC  
Layout



**AMENDMENT NO. 1 TO COMMERCIAL LEASE BETWEEN  
COLUMBUS DAY REALTY, INC., AND T2 BIOSYSTEMS, INC.**

This Amendment No. 1 is to a Commercial Lease dated May 6, 2013, by and between Columbus Day Realty, Inc. (LESSOR), and T2 Biosystems, Inc. (LESSEE), which lease relates to the premises at 231 Andover Street, Wilmington, Massachusetts.

WHEREAS, the Commercial Lease is dated May 6, 2013;

WHEREAS, the parties are desirous of amending the Commercial Lease for the purpose of adding additional square footage to the leased premises, prospectively adjusting the base rent and additional rent and granting the LESSEE a right of first refusal to add additional space to the Leased Premises at a later date;

NOW, THEREFORE, in accordance with the covenants, considerations and conditions contained herein, the parties agree to amend the Commercial Lease as follows:

**1. ADDITIONAL SPACE.**

Paragraph 2 of the Commercial Lease entitled "Premises" is hereby amended by adding an additional one thousand (1,000) square feet to the Leasehold Premises for the remainder of the Term, to bring the total square footage of the Leasehold to 6,570 square feet. The additional 1,000 square feet is highlighted in black on Exhibit "A", which is attached hereto.

Paragraph 4 of the Commercial Lease entitled "Base Rent" is hereby amended by increasing the base rent for the remainder of the Term to a rate of Fifty-two Thousand Five Hundred Sixty (\$52,560.00) Dollars annually, payable in monthly installments of Four Thousand Three Hundred Eighty (\$4,380.00) per month, in advance, on the first day of each and every month, beginning on October 1, 2013.

Paragraph 5 of the Commercial Lease entitled "Additional Rent" is hereby amended by increasing the percentage of the operating costs, for which the LESSEE is responsible, to 54.75%. Paragraph 5 is further amended by increasing the estimated annual Operating Costs for the first year of the Lease to \$21,626.25. The LESSEE shall pay 1/12 of the estimated annual operating costs, in the amount of \$1,802.00, each and every month for the balance of the first year of the lease Term, in addition to its regular monthly rental payments. For the avoidance of confusion, the total amount due in estimated annual operating costs from LESSEE during the eight (8) remaining months of the first year of the lease Term shall be \$14,416.

2. OPTION FOR ADDITIONAL SPACE

If the LESSEE is then current in all payments and is not then in breach or default of this Lease, LESSEE shall have the option to rent an additional 1,000 square feet of space, any time during the initial Term of the Commercial Lease and any extensions exercised by the LESSEE under Paragraph 25 of said Lease, but subject to the LESSOR'S rights as provided in Paragraph 3 below. The additional 1,000 square feet is highlighted in yellow on the attached Exhibit "A". The LESSEE shall exercise this option by giving the LESSOR written notice of the date on which the LESSEE shall take occupancy of the additional space. The LESSOR shall sign the notice and return a copy to the LESSEE; and as of that date, the Commercial Lease shall be considered as amended to reflect the following changes:

- Paragraph 2: Square footage increased to 7,570 square feet as shown on the plan attached as Exhibit A, including the newly added bounded area in yellow (the "Added Space").
- Paragraph 4: Base Rent is increased to \$60,560.00 effective on the date of occupancy of the Added Space; monthly payments of \$5,046.67;
- Paragraph 5: If the option is exercised by the LESSEE, then the LESSEE'S percentage of the Operating Costs would increase to 63%, and, if

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the option is exercised during the first year of the Lease Term, the estimated annual Operating Costs would increase to \$24,885.12 per year, with a monthly payment in the amount of \$2,073.33 for the balance of the first year of the Term from the effective date of occupancy of the Added Space.

3. RIGHT OF FIRST REFUSAL

Until the LESSEE has exercised its option under Paragraph 2 above, the LESSOR shall have the right to solicit offers from other prospective tenants for the additional 1,000 square feet of space highlighted in yellow on the attached Exhibit "A". If the LESSOR receives a bona fide offer to lease this space from another party, then the LESSOR shall give the LESSEE written notice which shall state the name and address of the offeror and the terms and conditions of said offer. The LESSEE shall have fifteen (15) days after receipt of the offer to give notice to the LESSOR that the LESSEE is exercising its option under Paragraph 2 to rent this additional space. In the event the LESSEE so elects to exercise its option and rent the additional space, then the Commercial Lease shall be deemed by the parties to have been amended to reflect the same changes to Paragraphs 2, 4 and 5 as set forth above in Paragraph 2 of this Amendment.

In the event the LESSEE does not exercise its option within fifteen (15) days after receipt of a notice from the LESSOR, then the LESSEE'S rights under Paragraph 2 and this Paragraph 3 shall lapse, and the LESSOR shall have the right to rent the additional 1,000 square feet of space to the prospective tenant.

3

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Except as modified by the Amendment, all other terms and conditions of the Commercial Lease shall remain in full force and effect for the remaining Term of the Lease including any options to extend which are exercised by the LESSEE as provided in Paragraph 25 of the Commercial Lease.

IN WITNESS WHEREOF, the LESSOR and LESSEE have set their hands and seals this 24th day of September, 2013.

COLUMBUS DAY REALTY, INC.

T2 BIOSYSTEMS, INC.

By: /s/ [ILLEGIBLE]  
Its President

By: /s/ [ILLEGIBLE]  
Its Chief Financial Officer

By: /s/ [ILLEGIBLE]  
Its Treasurer

RJO'S\Columbus Day Rlty Tr\Amendment No 1, Sept '13

4

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101 HARTWELL AVENUE  
 LEXINGTON, MASSACHUSETTS

LEASE SUMMARY SHEET

**Execution Date:** August 6, 2010

**Tenant:** T2 Biosystems, Inc., a Delaware corporation

**Tenant's Mailing Address Prior to Occupancy:** 286 Cardinal Medeiros Avenue Cambridge, MA 02141

**Landlord:** King 101 Hartwell LLC, a Massachusetts limited liability company

**Building:** 101 Hartwell Avenue, Lexington, Massachusetts. The Building consists of approximately 41,269 rentable square feet. The land on which the Building is located (the "**Land**") is more particularly described in Exhibit 2 attached hereto and made a part hereof (such land, together with the Building, are hereinafter collectively referred to as the "**Property**").

**Premises:** Approximately Twenty Thousand One Hundred Thirty-Five (20,135) rentable square feet of space in the Building, as more particularly shown as hatched, highlighted or outlined on the plan attached hereto as Exhibit 1 and made a part hereof (the "**Lease Plan**").

**Term Commencement Date:** The date on which Landlord delivers exclusive possession of the Premises to Tenant in the condition required by Section 3.1 below, with Landlord's Work substantially complete. The Term Commencement Date is estimated to occur on or about January 1, 2011.

**Rent Commencement Date:** Subject to Section 3.6, the date on which Landlord delivers exclusive possession of the Premises to Tenant in the condition required by Section 3.1 below, with Landlord's Work substantially complete; provided, however, if there are any Tenant Delays, the Rent Commencement Date shall occur on the date on which Landlord would have delivered exclusive possession of the Premises to Tenant in such condition but for any Tenant Delays.

**Expiration Date:** Unless earlier extended or terminated pursuant to the terms hereof, the last day of the fifth (5<sup>th</sup>) Rent Year (hereinafter defined)

**Extension Term:** Subject to Section 1.2 below, one (1) extension term of two (2) years.

**Permitted Uses:** Subject to Legal Requirements, general office, research, development and laboratory use, including without limitation a BL-2 laboratory for diagnosing blood and other human products, a radiation lab, and other ancillary uses related to the foregoing.

1

Base Rent:	RENT YEAR(1)	ANNUAL BASE RENT	MONTHLY PAYMENT
	1	\$ 520,000.00	\$ 43,333.33
	2	\$ 540,000.00	\$ 45,000.00
	3	\$ 560,000.00	\$ 46,666.67
	4	\$ 580,000.00	\$ 48,333.33
	5	\$ 600,000.00	\$ 50,000.00

**Operating Costs and Taxes:** See Sections 5.2 and 5.3

**Tenant's Share:** A fraction, the numerator of which is the number of rentable square feet in the Premises, and the denominator of which is the number of rentable square feet in the Building. As of the Execution Date, Tenant's Share is 48.79%

**Security Deposit/ Letter of Credit:** \$400,000.00

EXHIBIT 1	LEASE PLAN
EXHIBIT 2	LEGAL DESCRIPTION
EXHIBIT 3	LANDLORD'S WORK
EXHIBIT 3A	EXTERIOR WORK
EXHIBIT 4	SITE PLAN
EXHIBIT 5	FORM OF LETTER OF CREDIT
EXHIBIT 6	TENANT'S HAZARDOUS MATERIALS
EXHIBIT 6A	LIST OF ENVIRONMENTAL REPORTS
EXHIBIT 7	RULES AND REGULATIONS
EXHIBIT 8	LANDLORD'S SERVICES

(1) For the purposes of this Lease, the first "**Rent Year**" shall be defined as the period commencing as of the Commencement Date and ending on the fast day of the month in which the first (1<sup>st</sup>) anniversary of the Commencement Date occurs; provided, however, that if the Commencement Date occurs on the first day of a calendar month, then the first Rent Year shall expire on the day immediately preceding the first (1<sup>st</sup>) anniversary of the Commencement Date. Thereafter, "Rent Year" shall be defined as any subsequent twelve (12) month period during the term of this Lease,

2

THIS INDENTURE OF LEASE (this "**Lease**") is hereby made and entered into on the Execution Date by and between Landlord and Tenant.

Each reference in this Lease to any of the terms and titles contained in any Exhibit attached to this Lease shall be deemed and construed to incorporate the data stated under that term or title in such Exhibit. All capitalized terms not otherwise defined herein shall have the meanings ascribed to them as set forth in the Lease Summary Sheet which is attached hereto and incorporated herein by reference.

**1. LEASE GRANT; TERM; APPURTENANT RIGHTS; EXCLUSIONS**

**1.1 Lease Grant.** Landlord hereby leases to Tenant, and Tenant hereby leases from Landlord, the Premises upon and subject to terms and conditions of this Lease, for a term of years commencing on the Term Commencement Date and, unless earlier terminated or extended pursuant to the terms hereof, ending on the Expiration Date (the "**Initial Term**"; the Initial Term and the Extension Term, if duly exercised, are hereinafter collectively referred to as the "**Term**").

**1.2 Extension Term.**

(a) Provided (i) Tenant, an Affiliated Entity (hereinafter defined) and/or a Successor (hereinafter defined) is/are then occupying one hundred percent (100%) of the Premises; and (ii) no Event of Default nor an event which, with the passage of time and/or the giving of notice would constitute an Event of Default has occurred (1) as of the date of the Extension Notice (hereinafter defined), and (2) at the commencement of the applicable Extension Term (hereinafter defined), Tenant shall have the option to extend the Term for one (1) additional term of two (2) years (the "**Extension Term**"), commencing as of the expiration of the Initial Term. Tenant must exercise such option to extend by giving Landlord written notice (the "**Extension Notice**") on or before the date that is nine (9) months prior to the expiration of the then-current term of this Lease, *time being of the essence*. Upon the timely giving of such notice, the Term shall be deemed extended upon all of the terms and conditions of this Lease, except that Base Rent during the Extension Term shall be calculated in accordance with this Section 1.2. Landlord shall have no obligation to construct or renovate the Premises and Tenant shall have no further right to extend the Term. If Tenant fails to give timely notice, as aforesaid, Tenant shall have no further right to extend the Term. Notwithstanding the fact that Tenant's proper and timely exercise of such option to extend the Term shall be self-executing, the parties shall promptly execute a lease amendment reflecting such Extension Term after Tenant exercises such option. The execution of such lease amendment shall not be deemed to waive any of the conditions to Tenant's exercise of its rights under this Section 1.2.

(b) The Base Rent during the Extension Term (the "**Extension Term Base Rent**") shall be determined in accordance with the process described hereafter. Extension Term Base Rent shall be the fair market rental value of the Premises then demised to Tenant as of the commencement of the Extension Term as determined in accordance with the process described below, for renewals of combination laboratory and office space in the Lexington/Bedford area of equivalent quality, size, utility and location, with the length of the Extension Term and the credit standing of Tenant to be taken into account. Within thirty (30) days after receipt of the Extension Notice, Landlord shall deliver to Tenant written notice of its determination of the Extension Term Base Rent for the Extension Term, Tenant shall, within thirty (30) days after receipt of such notice, notify Landlord in writing whether Tenant accepts or rejects Landlord's determination of the Extension Term Base Rent ("**Tenant's Response Notice**"). If Tenant fails timely to deliver Tenant's Response Notice, Landlord's determination of the Extension Term Base Rent shall be binding on Tenant.

(c) If and only if Tenant's Response Notice is timely delivered to Landlord and indicates both that Tenant rejects Landlord's determination of the Extension Term Base Rent and desires

1

to submit the matter to arbitration, then the Extension Term Base Rent shall be determined in accordance with the procedure set forth in this Section 1.2(c). In such event, within ten (10) days after receipt by Landlord of Tenant's Response Notice indicating Tenant's desire to submit the determination of the Extension Term Base Rent to arbitration, Tenant and Landlord shall each notify the other, in writing, of their respective selections of an appraiser (respectively, "**Landlord's Appraiser**" and "**Tenant's Appraiser**"). Landlord's Appraiser and Tenant's Appraiser shall then jointly select a third appraiser (the "**Third Appraiser**") within ten (10) days of their appointment. All of the appraisers selected shall be individuals with at least five (5) consecutive years' commercial appraisal experience in the area in which the Premises are located, shall be members of the Appraisal Institute (M.A.I.), and, in the case of the Third Appraiser, shall not have acted in any capacity for either Landlord or Tenant within five (5) years of his or her selection. The three appraisers shall determine the Extension Term Base Rent in accordance with the requirements and criteria set forth in Section 1.2(b) above, employing the method commonly known as *Baseball Arbitration*, whereby Landlord's Appraiser and Tenant's Appraiser each sets forth its determination of the Extension Term Base Rent as defined above, and the Third Appraiser must select one or the other (it being understood that the Third Appraiser shall be expressly prohibited from selecting a compromise figure). Landlord's Appraiser and Tenant's Appraiser shall deliver their determinations of the Extension Term Base Rent to the Third Appraiser within five (5) days of the appointment of the Third Appraiser and the Third Appraiser shall render his or her decision within ten (10) days after receipt of both of the other two determinations of the Extension Term Base Rent. The Third Appraiser's decision shall be binding on both Landlord and Tenant. Each party shall bear the cost of its own appraiser and shall share equally in the cost of the Third Appraiser.

**1.3 No recording.** Tenant shall not record this Lease or any portion hereof, a memorandum of this Lease and/or a notice of this Lease.

**1.4 Appurtenant Rights.**

(a) **Common Areas.** Subject to the terms of this Lease and the Rules and Regulations (hereinafter defined), Tenant shall have, as appurtenant to the Premises, rights to use in common with others entitled thereto, the following areas (such areas are hereinafter referred to as the "**Common Areas**"): (i) common rooftop areas within which the Rooftop Premises (hereinafter defined) are located and other common rooftop areas necessary for access thereto, and (ii) areas designated by Landlord for common use of the tenants of the Building which areas are exterior to the Building but within the Land, such as landscaped areas, parking areas, driveways and walkways necessary for access to the Premises; and no other appurtenant rights or easements.

(b) **Parking.** During the Term, Landlord shall, subject to the terms hereof, make available four parking spaces per 1,000 rentable square feet of the Premises for Tenant's use in the parking areas serving the Building. The number of parking spaces in the parking areas reserved for Tenant, as modified pursuant to this Lease or as otherwise permitted by Landlord, are hereinafter referred to as the "**Parking Spaces**." The number of Parking Spaces as of the Execution Date is eighty (80). Other than with respect to ten (10) Parking Spaces that Landlord shall designate as being reserved for Tenant's visitors, which spaces are more particularly shown on the site plan attached hereto as **Exhibit 4** and made a part hereof (the "**Site Plan**"), Tenant shall have no right to hypothecate or encumber the Parking Spaces, and shall not sublet, assign, or otherwise transfer the Parking Spaces other than to employees of Tenant occupying the Premises or to a Successor (hereinafter defined), an Affiliated Entity (hereinafter defined) or a transferee pursuant to an approved Transfer under Section 13 of this Lease. Said Parking Spaces will be on an unassigned, non-reserved basis, and shall be subject to such reasonable rules and regulations as may be in effect for the use of the parking areas from time to time.

(c) **Dumpster.** During the Term, Tenant shall have the right, at Tenant's sole cost and expense, to use, maintain and replace a dumpster or trash compactor reasonably approved by

2

Landlord, which dumpster or trash compactor shall be located as shown on the Site Plan, Such dumpster or trash compactor shall be dedicated to Tenant's exclusive use for trash and garbage. In no event shall any Hazardous Materials (including without limitation any biohazards) be placed in such dumpster or trash compactor. Tenant shall cause any such dumpster to be emptied by a reputable trash removal company reasonably approved by Landlord on a weekly basis or more frequently if reasonably necessary. Tenant shall cause any such trash compactor to be emptied, as necessary, by a reputable trash removal company reasonably approved by Landlord.

(d) **Rooftop Premises.** During the Term, Tenant shall have the right to use a portion of the rooftop of the Building designated by Landlord (the "**Rooftop Premises**") for (i) certain equipment purchased and installed by Landlord as part of Landlord's Work (the "**Provided Rooftop Equipment**") and (ii) the installation of certain equipment approved by Landlord and purchased and installed by Tenant in accordance with Section 11 ("**Tenant's Additional Rooftop Equipment**") and collectively with the Provided Rooftop Equipment, as the same may be modified, altered or replaced during the Term, is collectively referred to herein as "**Tenant's Rooftop Equipment**"). Landlord's approval of Tenant's Additional Rooftop Equipment shall not be unreasonably withheld, conditioned or delayed provided Tenant demonstrates to Landlord's reasonable satisfaction that the proposed equipment (i) does not interfere with any base building equipment operated by Landlord on the roof; (ii) will not affect the structural integrity of the Building or impact the roof or the roof membrane in any manner; (iii) shall be adequately screened so as to minimize the visibility of such equipment; and (iv) shall be adequately sound-proofed to meet all Legal Requirements. Tenant shall not install or operate Tenant's Additional Rooftop Equipment until Tenant has obtained and submitted to Landlord copies of all required governmental permits, licenses, and authorizations necessary for the installation and operation thereof. Landlord shall have no obligation to provide any services including, without limitation, electric current or gas service, to Tenant's Additional Rooftop Equipment. Tenant shall be responsible for the cost of repairing and maintaining Tenant's Rooftop Equipment and the cost of repairing any damage to the Building, or the cost of any necessary improvements to the Building, caused by or as a result of the installation, replacement and/or removal of Tenant's Additional Rooftop Equipment and/or the replacement and/or removal of Tenant's Rooftop Equipment. Landlord makes no warranties or representations to Tenant as to the suitability of the Rooftop Premises for the installation and operation of Tenant's Additional Rooftop Equipment. If any of Tenant's Work on the roof of the Building, including without limitation the installation of Tenant's Additional Rooftop Equipment and the maintenance, repair or replacement of Tenant's Rooftop Equipment, damages the roof or invalidates or adversely affects any warranty, Tenant shall be fully responsible for the cost of repairs (and any subsequent repairs to the roof to the extent that any warranty is invalidated or adversely affected); it being acknowledged and agreed that, notwithstanding anything to the contrary contained herein, Landlord's waiver contained in Section 14.5 below shall not apply to the cost of any such repairs. In the event that at any time during the Term, Landlord determines, in its sole but bona fide business judgment, that the operation and/or periodic testing of Tenant's Additional Rooftop Equipment interferes with the operation of the Building or the business operations of any of the occupants of the Building, then Tenant shall, upon notice from Landlord, cease operation of Tenant's Additional Rooftop Equipment and cause testing thereof to occur after normal business hours (hereinafter defined). In the event that at any time during the Term, Landlord determines, in its sole but bona fide business judgment, that, as a result of the misuse of the Provided Rooftop Equipment by any of the Tenant Parties or the failure of Tenant to maintain the Provided Rooftop Equipment in good order, condition and repair, the operation and/or periodic testing of the Provided Rooftop Equipment interferes with the operation of the Building or the business operations of any of the occupants of the Building, then Tenant shall, upon notice from Landlord, cease operation of the Provided Rooftop Equipment and cause testing thereof to occur after normal business hours (hereinafter defined). Tenant shall have the right to access the Rooftop Premises and shall maintain an access log which shall list all Tenant Parties who access the roof, the dates and times of such access, and the purpose therefor.

3

## 1.5 Tenant's Access.

(a) From and after the Term Commencement Date and until the end of the Term, Tenant shall have access to the Premises twenty-four (24) hours a day, seven (7) days a week, subject to Legal Requirements, the Rules and Regulations, the terms of this Lease and matters of record.

(b) Subject to Section 11, Tenant shall have the right to access the Premises, at Tenant's sole risk, after December 10, 2010 but prior to the Term Commencement Date for purposes of moving Tenant's Property (hereinafter defined) into the Premises, subject to reasonable coordination with Landlord to ensure that such moving in will not interfere with inspections of Landlord's Work and does not materially interfere with the preparation for or performance of Landlord's Work (hereinafter defined). Tenant shall, prior to the first entry to the Premises pursuant to this Section 1.5(b), provide Landlord with certificates of insurance evidencing that the insurance required in Section 14 hereof is in full force and effect and covering any person or entity entering the Building. Except to the extent caused by the negligence or willful misconduct of any of the Landlord Parties, Tenant shall defend, indemnify and hold the Landlord Parties (hereinafter defined) harmless from and against any and all Claims (hereinafter defined) for injury to persons or property resulting from or relating to Tenant's access to and use of the Premises prior to the Term Commencement Date as provided under this Section 1.5(b). Tenant shall coordinate any access to the Premises prior to the Term Commencement Date with Landlord's designee.

**1.6 Exclusions.** The following are expressly excluded from the Premises and reserved to Landlord: all the perimeter walls of the Premises (except the inner surfaces thereof), the Common Areas, and any space in or adjacent to the Premises used for shafts, stacks, pipes, conduits, wires and appurtenant fixtures, fan rooms, ducts, electric or other utilities, or other Building facilities, and the use of all of the foregoing, except as expressly permitted pursuant to Section 1.4(a) above.

## 2. RIGHTS RESERVED TO LANDLORD

**2.1 Additions and Alterations.** Landlord reserves the right, at any time and from time to time, to make such changes, alterations, additions, improvements, repairs or replacements in or to the Property and the fixtures and equipment therein, as well as in or to the street entrances and/or the Common Areas (but for purposes of this Section 2.1 expressly excluding the Premises) as it may deem necessary or desirable, provided, however, that there be no material obstruction of access to, or material interference with the use and enjoyment of, the Premises by Tenant. If any such changes, alterations, additions, improvements, repairs or replacements affect the entrance to the Premises, Landlord shall provide Tenant with as much advance notice as reasonably practicable; provided, however, that no notice shall be required in the event of an emergency. Subject to the foregoing provisions of this Section 2.1, Landlord expressly reserves the right to temporarily close any portion, of the Common Areas for the purposes of making repairs or changes thereto.

**2.2 Additions to the Property.** Upon reasonable prior written notice to Tenant (except that no notice shall be required in an emergency), Landlord may at any time or from time to time construct additional improvements in all or any part of the Property outside of the Premises, including, without limitation, adding additional buildings or changing the location or arrangement of any improvement in or on the Property or all or any part of the Common Areas, or add or deduct any land to or from the Property; provided that in connection with the exercise of the foregoing reserved rights, there shall be no material increase in Tenant's obligations (including without limitation Operating Costs or Taxes charged to Tenant under Section 5) or material interference with Tenant's rights under this Lease, including, without limitation, with Tenant's access to or use and enjoyment of the Premises.

**2.3 Name and Address of Building.** Landlord reserves the right at any time and from time to time to change the name or address of the Building and/or the Property, provided Landlord gives

4

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Tenant at least twelve (12) months' prior written notice thereof.

**2.4 Landlord's Access.** Subject to the terms hereof, Tenant shall (a) upon as much advance notice as is practical under the circumstances, and in any event at least two (2) business days' prior written notice (except that no notice shall be required in emergency situations), permit Landlord and any holder of a Mortgage (hereinafter defined) (each such holder, a "**Mortgage**"), and their agents, employees and contractors, to have reasonable access to the Premises at all reasonable hours for the purposes of inspection, making repairs, replacements or improvements in or to the Premises or the Building or equipment therein (including, without limitation, sanitary, electrical, heating, air conditioning or other systems), complying with all applicable laws, ordinances, rules, regulations, statutes, by-laws, court decisions and orders and requirements of all public authorities (collectively, "**Legal Requirements**"), accessing the Building electrical room and the internal ladder to the Building's roof hatch, or exercising any right reserved to Landlord under this Lease (including without limitation the right to take upon or through, all necessary materials, tools and equipment); (b) upon as much advance notice as is practical under the circumstances, and in any event at least two (2) business days' prior written notice (except that no notice shall be required in emergency situations), permit Landlord, any Mortgagee and any other occupant of the Building (so long as such occupant shall be accompanied by a representative of Landlord), and their agents, employees and contractors, to have reasonable access to the Premises at all reasonable hours for the purposes of accessing the internal ladder to the Building's roof hatch; (c) permit Landlord and its agents and employees, at reasonable times, upon reasonable advance notice, to show the Premises during normal business hours (i.e. Monday — Friday 8 A.M. - 6 P.M., Saturday 8 A.M. — 1 P.M., excluding holidays) to any prospective Mortgagee or purchaser of the Building and/or the Property or of the interest of Landlord therein, and during the last nine (9) months of the Term, prospective tenants; and (d) upon reasonable prior written notice from Landlord, permit Landlord and its agents, at Landlord's sole cost and expense, to perform environmental audits, environmental site investigations and environmental site assessments ("**Site Assessments**") in, on, under and at the Premises and the Land, it being understood that Landlord shall repair any damage arising as a result of the Site Assessments, and such Site Assessments may include both above and below the ground testing and such other tests as may be necessary or appropriate to conduct the Site Assessments. Tenant shall have the right to have a representative present during any such access pursuant to this Section 2.4. Landlord and any other party accessing the Premises pursuant to this Section 2.4 shall be required to comply with Tenant's reasonable security and safety protocols of which Landlord has received reasonable prior notice, provided in no event shall such protocols prohibit access to any portion of the Premises. The parties agree and acknowledge that, despite reasonable and customary precautions (which Landlord agrees it shall exercise), any property or equipment in the Premises of a delicate, fragile or vulnerable nature may nevertheless be damaged in the course of performing Landlord's obligations. Accordingly, Tenant shall take reasonable protective precautions with unusually fragile, vulnerable or sensitive property and equipment.

**2.5 Pipes, Ducts and Conduits.** Tenant shall permit Landlord to use, maintain and relocate the pipes, ducts and conduits located as of the Term Commencement Date in and through the Premises. Landlord shall use all commercially reasonable efforts to avoid the need to erect new pipes, ducts and conduits in the Premises, but if Landlord determines that it is necessary to erect the same, Landlord shall permit Landlord to erect, use, maintain and relocate new pipes, ducts and conduits in and through the Premises provided the same do not materially reduce the floor area or materially adversely affect the appearance thereof.

**2.6 Minimize Interference.** Except in the event of an emergency, Landlord shall use commercially reasonable efforts to minimize any interference with Tenant's business operations and use and occupancy of the Premises in connection with the exercise any of the foregoing rights under this Section 2. In connection with the exercise of Landlord's rights set forth in this Section 2, (i) Landlord shall promptly return the Premises to broom-clean condition following the completion of any work

5

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conducted in the Premises; (ii) subject to Section 14.5 below, Landlord shall be responsible for the prompt and complete repair of any damage caused to the Premises as a result of Landlord's exercise of its rights in this Section 2, and (iii) the provisions of Section 5.6 shall specifically apply.

## 3. CONDITION OF PREMISES; CONSTRUCTION.

**3.1 Condition of Premises.** Landlord shall deliver the Premises to Tenant in broom-clean condition with the Landlord's Work substantially complete, the Building roof and structure (including without limitation exterior windows), Common Areas, and mechanical, electrical, plumbing, HVAC and life/safety systems serving the Building, and equipment provided by Landlord in good working order, condition and repair. Subject to the foregoing and Section 3.5 below, and subject further to Landlord's obligation to perform Landlord's Work (hereinafter defined), Tenant acknowledges and agrees that Tenant is leasing the Premises in their "**AS IS**," "**WHERE IS**," condition and with all faults on the Execution Date, without representations or warranties, express or implied, in fact or by law, of any kind, and without recourse to Landlord.

### 3.2 Landlord's Work.

(a) Subject to delays due to governmental regulation, unusual scarcity of or inability to obtain labor or materials, labor difficulties, casualty or other causes reasonably beyond Landlord's control (collectively "**Landlord's Force Majeure**") and subject to any act or omission by Tenant and/or Tenant's agents, servants, employees, consultants, contractors, subcontractors, licensees and/or subtenants (collectively with Tenant, the "**Tenant Parties**") which causes an actual delay in the performance of Landlord's Work, and with respect to which Landlord has provided Tenant with written notice that such act or omission is likely to result in an actual delay, and within five (5) days after its receipt of such notice Tenant has failed to alter its

actions in such a manner as to avoid the actual delay in the performance of Landlord's Work, (a "**Tenant Delay**"), Landlord, at Landlord's sole cost and expense, shall diligently perform the work ("**Landlord's Work**") more particularly described in Exhibit 3 attached hereto and will substantially complete Landlord's Work prior to the Term Commencement Date. Landlord's Work will be deemed substantially complete if it is complete except for Punchlist Items (hereinafter defined). After completion of Landlord's Work, Landlord shall provide Tenant with "as built" drawings of Landlord's Work (in CAD format and one paper set).

(b) Tenant shall have the right, in accordance herewith, to submit for Landlord's approval (which approval shall not be unreasonably withheld) change proposals to increase the scope of Landlord's Work (each, a "**Change Proposal**"). Landlord agrees to respond to any such Change Proposal within three (3) business days after the submission thereof by Tenant (unless Landlord has previously advised Tenant that a longer time period for such response is reasonably necessary due to the nature and scope of the Change Proposal, together with Landlord's good faith estimate as to the amount of additional time that will be necessary, or the fact that the information provided by Tenant in the Change Proposal is insufficient for the purposes of enabling Landlord to make the determination set forth herein), and if approved by Landlord, advising Tenant of any anticipated increase in costs associated with such Change Proposal ("**Anticipated Costs**"), as well as an estimate of any delay which would likely result in the completion of Landlord's Work if a Change Proposal is made pursuant thereto ("**Landlord's Change Order Response**"). Tenant shall have the right to then approve or withdraw such Change Proposal within five (5) business days after receipt of Landlord's Change Order Response. If Tenant fails to respond to Landlord's Change Order Response within such five (5) business day period, such Change Proposal shall be deemed withdrawn. If Tenant approves Landlord's Change Order Response, then (a) such Change Proposal shall be deemed a "Change Order" hereunder, (b) Tenant shall reimburse Landlord for the actual increase in costs associated with the Change Order within thirty (30) days after demand therefor, as Additional Rent, provided, however, that in the event that the Anticipated Costs associated with such Change Order, when added to the costs of previously approved Change Proposals, exceeds Ten Thousand

6

Dollars (\$10,000) (the "**Maximum Amount**"), then Tenant shall pay to Landlord, as Additional Rent, at the time that Tenant approves Landlord's Change Order Response, the Anticipated Costs in excess of the Maximum Amount, (c) any delay in the substantial completion of Landlord's Work due to such Change Order shall be deemed a Tenant Delay, and (d) Landlord shall perform the work described in the Change Order as part of Landlord's Work on all the terms and conditions applicable to Landlord's Work except as expressly set forth herein with respect to Tenant's payment obligation.

**3.3 Punchlist Items.** Promptly following delivery of the Premises to Tenant with Landlord's Work substantially complete, Landlord and Tenant shall inspect the Premises and mutually prepare a list (the "**Punchlist**") of outstanding items which do not materially interfere with Tenant's use and occupancy of the Premises but which need to be performed to complete Landlord's Work (the "**Punchlist Items**"). Subject to Landlord's Force Majeure and Tenant Delays, Landlord shall, unless otherwise specified on the Punchlist, complete all Punchlist Items at Landlord's sole cost and expense within sixty (60) days of the date of the Punchlist.

**3.4 Exterior Work.** Subject to Landlord's Force Majeure and Tenant Delays, Landlord, at Landlord's sole cost and expense, shall diligently perform the work ("**Exterior Work**") more particularly described in Exhibit 3A attached hereto. Landlord shall use commercially reasonable efforts to substantially complete the Exterior Work on or before May 31, 2011. From and after the Term Commencement Date, Landlord shall use commercially reasonable efforts to minimize any interference with Tenant's business operations and use and occupancy of the Premises in connection with the performance of the Exterior Work.

**3.5 Landlord's Warranty.** Subject to the terms of this Section 3.5, Landlord warrants that the materials and workmanship comprising Landlord's Work will be free from defects or deficiencies. Any portion of Landlord's Work not conforming to the previous sentence may be considered defective. Landlord's warranty excludes remedy for damage caused by abuse by any of the Tenant Parties or modifications not made by Landlord or any Landlord Party or improper or insufficient maintenance to the extent that such maintenance is not the responsibility of Landlord hereunder, it being understood and agreed that normal wear and tear and normal usage are not deemed defects or deficiencies. Landlord agrees that it shall, without cost to Tenant, correct any portion of Landlord's Work which is found to be defective promptly following the date that Tenant gives Landlord written notice (a "**Defect Notice**") of such defective condition, provided that the Defect Notice is delivered to Landlord on or before the date (the "**Warranty Expiration Date**") that is ninety (90) days following the Term Commencement Date, *time being of the essence*. Landlord's obligations under this Section 3.5 shall expire on the Warranty Expiration Date and be of no further force and effect except with respect to any defects or deficiencies in Landlord's Work disclosed in any Defect Notice delivered before the Warranty Expiration Date. In addition to and notwithstanding the foregoing, Landlord hereby agrees, at no cost to Tenant, to enforce its warranties against any contractor performing any portion of Landlord's Work.

### **3.6 Delays.**

(a) Subject to Landlord's Force Majeure and Tenant Delays, (i) if Landlord's Work is not substantially complete on or before January 7, 2011, the Rent Commencement Date shall be delayed one (1) day for each one (1) day after such date that Landlord's Work is not substantially complete, and (ii) if Landlord's Work is not substantially complete on or before February 1, 2011, the Rent Commencement Date shall be delayed two (2) days for each one (1) day after such date that Landlord's Work is not substantially complete. The remedies set forth in this Section 3.6 are Tenant's sole and exclusive right and remedy based upon any delay in the performance of Landlord's Work.

(b) In the event that Landlord anticipates that Landlord's Work may not be substantially complete by January 1, 2011 for reasons other than Landlord's Force Majeure or Tenant

7

Delays, then at Landlord's request Tenant shall use commercially reasonable efforts to determine if arrangements or alternative plans may be made or implemented so as to minimize the impact on Tenant of such delayed substantial completion, which efforts shall include exploring the possibility of remaining in Tenant's current location beyond January 1, 2011 without penalty. If such arrangements or alternative plans may be implemented in a manner that reduces the cost to Tenant resulting from the delayed substantial completion of Landlord's Work, then Landlord and Tenant shall negotiate in good faith appropriate modifications to Section 3.6(a) above.

**3.7 Wiring and Cabling Reimbursement.** Within thirty (30) days after Landlord's receipt of a reasonably detailed invoice from Tenant, Landlord shall reimburse Tenant for up to Twenty-Five Thousand Dollars (\$25,000) of the reasonable out of pockets costs and expenses incurred by Tenant in connection with the purchase and installation of Tenant's wiring and cabling in the Premises; provided, however, that such invoice must be delivered to Landlord no later than the date which is ninety (90) days after the Term Commencement Date.

## **4. USE OF PREMISES**

**4.1 Permitted Uses.** During the Term, Tenant shall use the Premises only for the Permitted Uses and for no other purposes. Service and utility areas (whether or not a part of the Premises) shall be used only for the particular purpose for which they are designed.

### **4.2 Prohibited Uses.**

(a) Notwithstanding any other provision of this Lease, Tenant shall not use the Premises or the Building, or any part thereof, or suffer or permit the use or occupancy of the Premises or the Building or any part thereof by any of the Tenant Parties (i) in a manner which would violate any of the covenants, agreements, terms, provisions and conditions of this Lease or otherwise applicable to or binding upon the Premises; (ii) for any unlawful purposes or in any unlawful manner; (iii) which, in the reasonable judgment of Landlord (taking into account the use of the Building as a combination laboratory, research and development and office building and the Permitted Uses) shall (a) impair the appearance or reputation of the Building; (b) impair, interfere with or otherwise diminish the quality of any of the Building services or the proper and economic heating, cleaning, ventilating, air conditioning or other servicing of the Building or Premises, or the use or occupancy of any of the Common Areas; (c) occasion discomfort, inconvenience or annoyance in any material respect (and Tenant shall not install or use any electrical or other equipment of any kind which, in the reasonable judgment of Landlord, will cause any such impairment, interference, discomfort, inconvenience, annoyance or injury), or cause any injury or damage to any occupants of the Premises or other tenants or occupants of the Building or their property; or (d) cause harmful air emissions, laboratory odors or noises or any unusual or other objectionable odors, noises or emissions to emanate from the Premises; (iv) in a manner which is inconsistent with the operation and/or maintenance of the Building as a first-class combination office, research, development and laboratory facility; or (v) in a manner which shall increase such insurance rates on the Building or on property located therein over that applicable when Tenant first took occupancy of the Premises hereunder (which initial insurance rates were set with due consideration for the Permitted Uses).

(b) With respect to the use and occupancy of the Premises and the Common Areas, Tenant will not: (i) place or maintain any signage (except as set forth in Section 12.2 below), trash, refuse or other articles (other than an access card reader installed in accordance with the terms hereof and a rug during inclement weather) in any vestibule or entry of the Premises, on the footwalks or corridors adjacent to the Premises or elsewhere on the exterior of the Premises, nor obstruct any driveway, corridor, footwalk, parking area, mall or any other Common Areas; (ii) permit undue accumulations of or burn garbage, trash, rubbish or other refuse within or without the Premises; (iii) permit the parking of vehicles so as to interfere with the use of any driveway, corridor, footwalk, parking



area, or other Common Areas; (iv) receive or ship articles of any kind outside of those areas reasonably designated by Landlord; (v) conduct or permit to be conducted any auction, going out of business sale, bankruptcy sale (unless directed by court order), or other similar type sale in or connected with the Premises; or (vi) except in connection with Alterations (hereinafter defined) approved by Landlord or the hanging of pictures, white boards and the like, cause or permit any hole to be drilled or made in any part of the Building.

## 5. RENT; ADDITIONAL RENT

**5.1 Base Rent.** Commencing on the Rent Commencement Date and thereafter throughout the Term, Tenant shall pay to Landlord Base Rent in equal monthly installments, in advance and without demand on the first day of each month for and with respect to such month. The payment of Base Rent, additional rent and other charges reserved and covenanted to be paid under this Lease with respect to the Premises (collectively, "**Rent**") shall be prorated for any partial months based on a 365-day year. Rent shall be payable to Landlord or, if Landlord shall so direct in writing, to Landlord's agent or nominee, in lawful money of the United States which shall be legal tender for payment of all debts and dues, public and private, at the time of payment.

### 5.2 Operating Costs.

(a) "**Operating Costs**" shall mean all costs incurred and expenditures of whatever nature made by Landlord in the operation, management, repair, replacement, maintenance and insurance of the Property or allocated to the Property, including without limitation any costs for utilities supplied to the Common Areas, any costs for repair and replacements, cleaning and maintenance of the Common Areas, related equipment, facilities, appurtenances and HVAC equipment and the Back-up Generator, the cost of personnel, including, without limitation, the property manager, if any, staff, office rentals, wages, unemployment taxes, social security taxes and benefits, personal property taxes and assessments, fees for required licenses and permits, the cost of Property inspections required by Legal Requirements, a management fee paid to Landlord's property manager (which management fee shall not exceed four (4%) of gross revenues for the Property) and the costs of Landlord's management office for the Property. Operating Costs shall not include Excluded Costs (hereinafter defined).

(b) "**Excluded Costs**" shall be defined as (i) any mortgage charges (including interest, principal, points and fees); (ii) brokerage commissions; (iii) salaries of executives and owners not directly employed in the management/operation of the Property and salaries of personnel above the grade of senior property manager; (iv) the cost of work done by any of the Landlord Parties for a particular tenant, including without limitation the costs of relocating a tenant or renovating or otherwise improving or decorating space for another tenant (which shall include without limitation the cost of utilities expended during any such renovation); (v) subject to Subsection 5.2(h) below, such portion of expenditures as are not properly chargeable against income; (vi) the costs of Landlord's Work, repairing any defects in Landlord's Work pursuant to Section 3.5 above, and any contributions made by Landlord to any tenant of the Property in connection with the build-out of its premises; (vii) franchise or income taxes imposed on Landlord; (viii) electricity, telephone and other utility costs, including without limitation, water, for any portion of the Property other than the Common Areas; (ix) increases in premiums for insurance or increases in real estate taxes when such increase is caused by the use of the Building by Landlord or any other tenant of the Building; (x) maintenance, repair and replacement of capital items not a part of the Building or the Property; (xi) depreciation of the Building; (xii) costs relating to maintaining Landlord's existence as a corporation, partnership or other entity; (xiii) advertising, legal and other fees and costs incurred in procuring tenants and/or in selling the Property; (xiv) the cost of any items for which Landlord is reimbursed by insurance, condemnation awards, refund, rebate or otherwise, and any expenses for repairs, replacements or maintenance to the extent covered by warranties, guaranties and service contracts (Landlord hereby agreeing to use commercially reasonable

efforts to adjust insurance proceeds and enforce warranties, guaranties and service contracts); (xv) costs incurred in connection with any disputes between Landlord and its employees, between Landlord and Building management, or between Landlord and other tenants or occupants; (xvi) the proportionate share of the costs of any personnel not dedicated exclusively to the Property, (xvii) legal fees and expenses incurred in connection with enforcing leases with tenants in the Building; (xviii) costs and expenses arising from the negligence or willful misconduct of the Landlord Parties; (xix) subject to Section 15.1 regarding the insurance deductible, costs and expenses arising from a Casualty or Taking (as such terms are defined in Section 15); (xx) the cost of testing, remediation or removal, transportation or storage of Hazardous Materials (hereinafter defined) in the Building or on the Property required by Environmental Laws (hereinafter defined), provided however, that with respect to the testing, remediation or removal that may not be lawfully delayed beyond the Expiration Date of (A) any material or substance located in, on, at or under the Building or the Property on the Execution Date and which, as of the Execution Date, is not considered, as a matter of law, to be a Hazardous Material, but which is subsequently determined to be a Hazardous Material as a matter of law, and (B) any material or substance located in, on, at or under the Building or the Property after the Execution Date and which, when placed in the Building or Property, was not considered, as a matter of law, to be a Hazardous Material, but which is subsequently determined to be a Hazardous Material as a matter of law, the costs thereof may be included in Operating Costs, subject, however, to Section 5.2(h), to the extent that such cost is treated as a capital expenditure; (xxi) expense reserves; (xxii) payments for rented equipment, the cost of which equipment would constitute a capital expenditure if the equipment were purchased, to the extent that such payments exceed the amount which otherwise could have been included in Operating Costs had Landlord purchased such equipment rather than leasing such equipment; and (xxiii) costs of repairs or alterations to the Building structural system, including without limitation costs of correcting defects in the design and construction of, or latent defects in, the Building.

(c) "**Capital Interest Rate**" shall be defined as an annual rate of either one percentage point over the AA Bond rate (Standard & Poor's corporate composite or, if unavailable, its equivalent) as reported in the financial press at the time the capital expenditure is made or, if the capital item is acquired through third-party financing, then the actual (including fluctuating) rate paid by Landlord in financing the acquisition of such capital item,

(d) "**Annual Charge-Off**" shall be defined as the annual amount of principal and interest payments which would be required to repay a loan ("**Capital Loan**") in equal monthly installments over the Useful Life (hereinafter defined), of the capital item in question on a direct reduction basis at an annual interest rate equal to the Capital Interest Rate, where the initial principal balance is the cost of the capital item in question.

(e) "**Useful Life**" shall be reasonably determined by Landlord in accordance with generally accepted accounting principles.

(f) **Payment of Operating Costs.** Tenant shall pay to Landlord, as additional rent, Tenant's Share of Operating Costs, Landlord may make a good faith estimate of Tenant's Share of Operating Costs for any fiscal year or part thereof during the term, and Tenant shall pay to Landlord, on the Rent Commencement Date and on the first (1st) day of each calendar month thereafter, an amount equal to Tenant's Share of Operating Costs for such fiscal year and/or part thereof divided by the number of months therein. Landlord may re-estimate Tenant's Share of Operating Costs once each Rent Year and deliver a copy of the re-estimate to Tenant. Thereafter, the monthly installments of Tenant's Share of Operating Costs shall be appropriately adjusted in accordance with the estimations so that, by the end of the fiscal year in question, Tenant shall have paid all of Tenant's Share of Operating Costs as estimated by Landlord. Any amounts paid based on such an estimate shall be subject to adjustment as herein provided when actual Operating Costs are available for each fiscal year. As of the Execution Date, the Property's fiscal year is January 1 — December 31.

(g) **Annual Reconciliation.** Landlord shall, within one hundred twenty (120) days after the end of each fiscal year, deliver to Tenant a reasonably detailed statement of the actual amount of Operating Costs for such fiscal year, which statement shall include line-item detail consistently applied throughout the Term ("**Year End Statement**"). Failure of Landlord to provide the Year End Statement within the time prescribed shall not relieve Tenant from its obligations hereunder. If the total of such monthly remittances on account of any fiscal year is greater than Tenant's Share of Operating Costs actually incurred for such fiscal year, then, provided no Event of Default has occurred nor any event which, with the passage of time and/or the giving of notice would constitute an Event of Default, Tenant may credit the difference against the next installment of additional rent on account of Operating Costs due hereunder (provided, however, if Tenant cures any default prior to the expiration of applicable cure periods set forth in Section 20 below, then Tenant shall then be entitled to take such credit), except that if such difference is determined after the end of the Term, Landlord shall refund such difference to Tenant within thirty (30) days after such determination to the extent that such difference exceeds any amounts then due from Tenant to Landlord. If the total of such remittances is less than Tenant's Share of Operating Costs actually incurred for such fiscal year, Tenant shall pay the difference to Landlord, as additional rent hereunder, within sixty (60) days of Tenant's receipt of an invoice therefor. Landlord's estimate of Operating Costs for the next fiscal year shall be based upon the Operating Costs actually incurred for the prior fiscal year as reflected in the Year-End Statement plus a reasonable adjustment based upon estimated increases in Operating Costs. The provisions of this Section 5.2(g) shall survive the expiration or earlier termination of this Lease.

(h) **Capital Expenditures.** If, during the Term, Landlord shall replace any capital items (collectively, "**Capital Expenditures**") the total amount of which is properly capitalized in accordance with generally accepted accounting principles in effect at the time of such replacement or purchase, the price of such Capital Expenditure shall be excluded from Operating Costs. There shall nevertheless be included in such Operating Costs (and in Operating Costs for each succeeding fiscal year) the amount, if any, by which the Annual Charge-Off (determined as hereinafter provided) of such Capital Expenditure (less insurance proceeds, if any, collected by Landlord by reason of damage to, or destruction of the capital item being replaced) exceeds the Annual Charge-Off of the Capital Expenditure for the item being replaced. If a new capital item is acquired which does not replace another capital item, and such new capital item will

be utilized within or serve any portion of the Building which includes the Premises and is either (i) required by any Legal Requirements enacted after the Execution Date or (ii) reasonably projected (based on engineering design and analysis) to reduce Operating Costs, then there shall be included in Operating Costs for each fiscal year in which and after such capital expenditure is made the Annual Charge-Off of such capital expenditure.

(i) Part Years. If the Rent Commencement Date or the Expiration Date occurs in the middle of a fiscal year, Tenant shall be liable for only that portion of the Operating Costs with respect to such fiscal year within the Term.

(j) Audit Right. Provided no Event of Default has occurred nor any event which, with the passage of time and/or the giving of notice would constitute an Event of Default, Tenant may, upon at least ten (10) days' prior written notice, inspect or audit Landlord's records relating to Operating Costs for any periods of time within the previous fiscal year before the audit or inspection. Landlord shall provide Tenant with access to such records in accordance with this Section 5.2(j) within ten (10) days after receipt of notice from Tenant. However, no audit or inspection shall extend to periods of time before the Term Commencement Date. If Tenant fails to object to the calculation of Tenant's Share of Operating Costs on the Year-End Statement within thirty (30) days after such statement has been delivered to Tenant and/or fails to complete any such audit or inspection within ninety (90) days after receipt of the Year End Statement, then Tenant shall be deemed to have waived its right to object to the calculation of Tenant's Share of Operating Costs for the year in question and the calculation thereof as set forth on such statement shall be final. Tenant's audit or inspection shall be conducted only at Landlord's offices or the offices of Landlord's property manager during business hours reasonably designated by

11

Landlord. Tenant shall pay the cost of such audit or inspection, provided, however, that if such audit discloses that Tenant has been overcharged by more than five percent (5%), Landlord shall reimburse Tenant for up to \$5,000 of Tenant's reasonable out-of-pocket costs incurred in connection with such audit. Tenant may not conduct an inspection or have an audit performed more than once during any fiscal year. If such inspection or audit reveals that an error was made in the calculation of Tenant's Share of Operating Costs previously charged to Tenant, then, provided no Event of Default has occurred nor an event which, with the passage of time and/or the giving of notice would constitute an Event of Default, Tenant may credit the difference against the next installment of additional rent on account of Operating Costs due hereunder (provided, however, if Tenant cures any default prior to the expiration of applicable cure periods set forth in Section 20 below, then Tenant shall then be entitled to take such credit), except that if such difference is determined after the end of the Term, Landlord shall refund such difference to Tenant within thirty (30) days after such determination to the extent that such difference exceeds any amounts then due from Tenant to Landlord. If such inspection or audit reveals an underpayment by Tenant, then Tenant shall pay to Landlord, as additional rent hereunder, any underpayment of any such costs, after deducting the reasonable out of pocket costs of such inspection or audit, within thirty (30) days after such underpayment is determined. Tenant shall maintain the results of any such audit or inspection confidential and shall not be permitted to use any third party to perform such audit or inspection, other than an independent firm of certified public accountants (A) reasonably acceptable to Landlord, (B) which is not compensated on a contingency fee basis or in any other manner which is dependent upon the results of such audit or inspection, and (C) which executes Landlord's standard confidentiality agreement whereby it shall agree to maintain the results of such audit or inspection confidential. The provisions of this Section 5.2(j) shall survive the expiration or earlier termination of this Lease.

### 5.3 Taxes.

(a) "Taxes" shall mean the real estate taxes and other taxes, levies and assessments imposed upon the Property, and upon any personal property of Landlord used exclusively in the operation of the Property, or on Landlord's interest in the Property or such personal property; charges, fees and assessments for transit, housing, police, fire or other services or purported benefits to the Property (including without limitation any community preservation assessments); service or user payments in lieu of taxes; and any and all other taxes, levies, betterments, assessments and charges arising from the ownership, leasing, operation, use or occupancy of the Property or based upon rentals derived therefrom, which are or shall be imposed by federal, state, county, municipal or other governmental authorities. Taxes shall not include any inheritance, estate, succession, gift, franchise, rental, income or profit tax, capital stock tax, capital levy or excise, or any income taxes arising out of or related to the ownership and operation of the Property, provided, however, that any of the same and any other tax, excise, fee, levy, charge or assessment, however described, that may in the future be levied or assessed as a substitute for or an addition to, in whole or in part, any tax, levy or assessment which would otherwise constitute Taxes, whether or not now customary or in the contemplation of the parties on the Execution Date of this Lease, shall constitute Taxes, but only to the extent calculated as if the Property were the only real estate owned by Landlord. "Taxes" shall also include reasonable expenses (including without limitation legal and consultant fees) of tax abatement or other proceedings contesting assessments or levies. Taxes shall also not include any interest, fines or penalties incurred as a result of the late payment of Taxes. In the case of any special or betterment assessment, Landlord shall elect to pay such assessment in installments, over the longest period permitted by law, and only such installments as are due and payable during the applicable Tax Period shall be included in Taxes.

(b) "Tax Period" shall be any fiscal/tax period in respect of which Taxes are due and payable to the appropriate governmental taxing authority (i.e., as mandated by the governmental taxing authority), any portion of which period occurs during the Term of this Lease.

(c) Payment of Taxes. Tenant shall pay to Landlord, as additional rent, Tenant's

12

Share of Taxes. Landlord may make a good faith estimate of the Taxes to be due by Tenant for any Tax Period or part thereof during the Term, and Tenant shall pay to Landlord, on the Rent Commencement Date and on the first (1<sup>st</sup>) day of each calendar month thereafter, an amount equal to Tenant's Share of Taxes for such Tax Period or part thereof divided by the number of months therein. Landlord may re-estimate Tenant's Share of Taxes once per Rent Year and deliver a copy of the re-estimate to Tenant. Thereafter, the monthly installments of Tenant's Share of Taxes shall be appropriately adjusted in accordance with the estimations so that, by the end of the Tax Period in question, Tenant shall have paid all of Tenant's Share of Taxes as estimated by Landlord. Upon Tenant's reasonable request, Landlord shall provide Tenant with copies of the tax bills and other documents, if any, reasonably evidencing the amount of Taxes. Any amounts paid based on such an estimate shall be subject to adjustment as herein provided when actual Taxes are available for each Tax Period. If the total of such monthly remittances is greater than Tenant's Share of Taxes actually due for such Tax Period, then, provided no Event of Default has occurred nor any event which, with the passage of time and/or the giving of notice would constitute an Event of Default, Tenant may credit the difference against the next installment of additional rent on account of Taxes due hereunder (provided, however, if Tenant cures any default prior to the expiration of applicable cure periods set forth in Section 20 below, then Tenant shall then be entitled to take such credit), except that if such difference is determined after the end of the Term, Landlord shall refund such difference to Tenant within thirty (30) days after such determination to the extent that such difference exceeds any amounts then due from Tenant to Landlord. If the total of such remittances is less than Tenant's Share of Taxes actually due for such Tax Period, Tenant shall pay the difference to Landlord, as additional rent hereunder, within thirty (30) days of Tenant's receipt of an invoice therefor. Landlord's estimate for the next Tax Period shall be based upon actual Taxes for the prior Tax Period plus a reasonable adjustment based upon estimated increases in Taxes. The provisions of this Section 5.3(c) shall survive the expiration or earlier termination of this Lease.

(d) Effect of Abatements. Appropriate credit against Taxes shall be given for any refund obtained by reason of a reduction in any Taxes by the assessors or the administrative, judicial or other governmental agency responsible therefor after deduction of Landlord's expenditures for reasonable legal fees and for other reasonable expenses incurred in obtaining the Tax refund.

(e) Part Years. If the Rent Commencement Date or the Expiration Date occurs in the middle of a Tax Period, Tenant shall be liable for only that portion of the Taxes, as the case may be, with respect to such Tax Period within the Term.

### 5.4 Late Payments.

(a) Any payment of Rent due hereunder not paid when due shall bear interest for each month or fraction thereof from the due date until paid in full at the annual rate of ten percent (10%), or at any applicable lesser maximum legally permissible rate for debts of this nature (the "Default Rate"). Landlord agrees to waive the interest due hereunder for the first late payment by Tenant under this Lease in any twelve (12) month period, provided that Landlord receives such payment from Tenant within five (5) business days from the due date (but if payment is not received within said 5-business day period, interest shall accrue as of the due date).

(b) Additionally, if Tenant fails to make any payment within five (5) days after the due date therefor, Landlord may charge Tenant a fee, which shall constitute liquidated damages, equal to One Thousand and NO/100 Dollars (\$1,000.00) for each such late payment. Landlord agrees to waive the late charge due hereunder for the first late payment by Tenant under this Lease in any twelve (12) month period, provided that Landlord receives such payment from Tenant within ten (10) days from the due date (but if payment is not received within said 10-day period, such late fee shall be payable by Tenant).

(c) For each Tenant payment check to Landlord that is returned by a bank for any reason, Tenant shall pay a returned check charge equal to the amount as shall be customarily charged by

13

Landlord's bank at the time.

(d) Money paid by Tenant to Landlord shall be applied to Tenant's account in the following order: first, to any unpaid additional rent, including without limitation late charges, returned check charges, legal fees and/or court costs chargeable to Tenant hereunder; and then to unpaid Base Rent.

(e) The parties agree that the late charge referenced in Section 5.4(b) represents a fair and reasonable estimate of the costs that Landlord will incur by reason of any late payment by Tenant, and the payment of late charges and interest are distinct and separate in that the payment of interest is to compensate Landlord for the use of Landlord's money by Tenant, while the payment of late charges is to compensate Landlord for Landlord's processing, administrative and other costs incurred by Landlord as a result of Tenant's delinquent payments. Acceptance of a late charge or interest shall not constitute a waiver of Tenant's default with respect to the overdue amount or prevent Landlord from exercising any of the other rights and remedies available to Landlord under this Lease or at law or in equity now or hereafter in effect.

(f) If Tenant during any six (6) month period shall be more than ten (10) days delinquent in the payment of any undisputed installment of Rent on three (3) or more occasions, then, notwithstanding anything herein to the contrary, Landlord may, by written notice to Tenant, elect to require Tenant to pay all Base Rent and Additional Rent on account of Operating Costs and Taxes quarterly in advance. Such right shall be in addition to and not in lieu of any other right or remedy available to Landlord hereunder or at law on account of Tenant's default hereunder.

**5.5 No Offset; Independent Covenants; Waiver.** Rent shall be paid without notice or demand, and without setoff, counterclaim, defense, abatement, suspension, deferment, reduction or deduction, except as expressly provided herein. **TENANT WAIVES ALL RIGHTS (I) TO ANY ABATEMENT, SUSPENSION, DEFERMENT, REDUCTION OR DEDUCTION OF OR FROM RENT, AND (II) TO QUIT, TERMINATE OR SURRENDER THIS LEASE OR THE PREMISES OR ANY PART THEREOF, EXCEPT AS EXPRESSLY PROVIDED HEREIN. TENANT HEREBY ACKNOWLEDGES AND AGREES THAT THE OBLIGATIONS OF TENANT HEREUNDER SHALL BE SEPARATE AND INDEPENDENT COVENANTS AND AGREEMENTS, THAT RENT SHALL CONTINUE TO BE PAYABLE IN ALL EVENTS AND THAT THE OBLIGATIONS OF TENANT HEREUNDER SHALL CONTINUE UNAFFECTED, UNLESS THE REQUIREMENT TO PAY OR PERFORM THE SAME SHALL HAVE BEEN TERMINATED PURSUANT TO AN EXPRESS PROVISION OF THIS LEASE. LANDLORD AND TENANT EACH ACKNOWLEDGES AND AGREES THAT THE INDEPENDENT NATURE OF THE OBLIGATIONS OF TENANT HEREUNDER REPRESENTS FAIR, REASONABLE, AND ACCEPTED COMMERCIAL PRACTICE WITH RESPECT TO THE TYPE OF PROPERTY SUBJECT TO THIS LEASE, AND THAT THIS AGREEMENT IS THE PRODUCT OF FREE AND INFORMED NEGOTIATION DURING WHICH BOTH LANDLORD AND TENANT WERE REPRESENTED BY COUNSEL SKILLED IN NEGOTIATING AND DRAFTING COMMERCIAL LEASES IN MASSACHUSETTS, AND THAT THE ACKNOWLEDGEMENTS AND AGREEMENTS CONTAINED HEREIN ARE MADE WITH FULL KNOWLEDGE OF THE HOLDING IN WESSON V. LEONE ENTERPRISES, INC., 437 MASS. 708 (2002). SUCH ACKNOWLEDGEMENTS, AGREEMENTS AND WAIVERS BY TENANT ARE A MATERIAL INDUCEMENT TO LANDLORD ENTERING INTO THIS LEASE.**

**5.6 Rent Abatement for Interruptions.** Notwithstanding anything to the contrary in this Lease contained, if the Premises or a portion thereof are substantially untenable such that, for the duration of the Interruption Cure Period (hereinafter defined), the continued operation in the ordinary course of Tenant's business in any portion of the Premises is materially and adversely affected, and if

14

Tenant ceases to use the affected portion of the Premises (the "**Affected Portion**") during the period of untenability then, provided that such untenability and Landlord's inability to cure such condition is not caused by the fault or neglect of any of the Tenant Parties, Base Rent, Operating Costs and Taxes shall thereafter be abated in proportion to such untenability until the day such condition is completely corrected. For purposes hereof, the "**Interruption Cure Period**" shall be defined as five (5) consecutive business days after Landlord's receipt of written notice from Tenant of the condition causing untenability in the Affected Portion. The provisions of this Section 5.6 shall not apply in the event of untenability caused by fire or other casualty, or Taking (hereinafter defined), which shall be governed by Section 15 below, or in the event of untenability caused by causes beyond Landlord's control or, so long as such untenability was not caused by the negligence or willful misconduct of any of the Landlord Parties, if Landlord is unable to cure such condition as the result of causes beyond Landlord's control.

**5.7 Survival.** Any obligations under this Section 5 which shall not have been paid at the expiration or earlier termination of the Term shall survive such expiration or earlier termination and shall be paid when and as the amount of same shall be determined and be due.

**6. INTENTIONALLY OMITTED.**

**7. LETTER OF CREDIT**

**7.1 Amount.**

(a) Contemporaneously with the execution of this Lease, Tenant shall deliver either (i) cash in the amount of Four Hundred Thousand Dollars (\$400,000) (the "**Cash Security Deposit**"), which shall be held by Landlord in accordance with Section 7.5 below, or (ii) an irrevocable letter of credit to Landlord which shall (a) be in the amount of Four Hundred Thousand Dollars (\$400,000) and otherwise in the form attached hereto as **Exhibit 5**; (b) issued by a bank with a rating of A or better and otherwise reasonably acceptable to Landlord upon which presentment may be made in Boston, Massachusetts; and (c) be for a term of one (1) year, subject to extension in accordance with the terms hereof (the "**Letter of Credit**"). The Letter of Credit shall be held by Landlord, without liability for interest, as security for the faithful performance by Tenant of all of the terms, covenants and conditions of this Lease by the Tenant to be kept and performed during the Term. In no event shall the Letter of Credit be deemed to be a prepayment of Rent nor shall it be considered a measure of liquidated damages. Unless the Letter of Credit is automatically renewing, at least thirty (30) days prior to the maturity date of the Letter of Credit (or any replacement Letter of Credit), Tenant shall deliver to Landlord a replacement Letter of Credit which shall have a maturity date no earlier than the next anniversary of the Term Commencement Date or one (1) year from its date of delivery to Landlord, whichever is later.

(b) If, as of the effective date of each reduction of the face amount of the Letter of Credit as herein described, no Event of Default has occurred and no event has occurred which, with the passage of time and/or the giving of notice, would constitute an Event of Default then (i) if Tenant receives an aggregate of Twenty Million Dollars (\$20,000,000) from equity sales and/or partnering transactions and/or license grants, as evidenced by a written certification (in form and substance reasonably acceptable to Landlord) from Tenant's Chief Financial Officer, Treasurer or Controller to Landlord, the face amount of the Letter of Credit may be reduced by \$80,000 on or after the first day of the third Rent Year, (ii) if at the end of the third Rent Year, Tenant has cash available to fund its operations for a minimum of two (2) years (based on Tenant's operating expenses during the third (3<sup>rd</sup>) Rent Year), as evidenced by a written certification (in form and substance reasonably acceptable to Landlord) from Tenant's Chief Financial Officer, Treasurer or Controller to Landlord, to which certification shall be attached Tenant's audited financial statements for the previous fiscal year, the face amount of the Letter of Credit may be reduced by \$80,000, and (iii) if at the end of the fourth Rent Year, Tenant has cash available to fund its operations for a minimum of one (1) year (based on Tenant's operating expenses during the fourth (4<sup>th</sup>) Rent Year), as

15

evidenced by a written certification (in form and substance reasonably acceptable to Landlord) from Tenant's Chief Financial Officer, Treasurer or Controller to Landlord, to which certification shall be attached Tenant's audited financial statements for the previous fiscal year, the face amount of the Letter of Credit may be reduced by \$80,000. For clarity, if the conditions necessary for Tenant to make all of the reductions described in Sections 7.1(b)(i)(ii) and (iii) are met, the face amount of the Letter of Credit for the 5<sup>th</sup> Rent Year shall be \$160,000. Landlord shall, at no cost to Landlord, cooperate with Tenant and the issuer of the Letter of Credit in connection with such reduction(s). If any such reduction is effectuated by delivery of a new Letter of Credit rather than an amendment, then upon receipt of a replacement Letter of Credit in the reduced face amount, Landlord shall return the Letter of Credit in the previous amount to the issuer thereof, with a copy to Tenant.

(c) If Tenant delivers a Cash Security Deposit, then the amount of the Cash Security Deposit shall be reduced to the amounts and upon satisfaction of the conditions set forth in Section 7.1(b) above. Within thirty (30) days following the effective date of any reduction in the amount of the Cash Security Deposit, Landlord shall return to Tenant such portion of the Cash Security Deposit then in excess of the required amount.

**7.2 Application of Proceeds of Letter of Credit.** Upon an Event of Default, or if any proceeding shall be instituted by or against Tenant pursuant to any of the provisions of any Act of Congress or State law relating to bankruptcy, reorganizations, arrangements, compositions or other relief from creditors (and, in the case of any proceeding instituted against it, if Tenant shall fail to have such proceedings dismissed within thirty (30) days) or if Tenant is adjudged bankrupt or insolvent as a result of any such proceeding, Landlord at its sole option may draw down all or a part of the Letter of Credit. The balance of any Letter of Credit cash proceeds shall be held in accordance with Section 7.5 below. Should the entire Letter of Credit, or any portion thereof, be

drawn down by Landlord, Tenant shall, upon the written demand of Landlord, deliver a replacement Letter of Credit in the amount drawn, and Tenant's failure to do so within ten (10) days after receipt of such written demand shall constitute an additional Event of Default hereunder. The application of all or any part of the cash proceeds of the Letter of Credit to any obligation or default of Tenant under this Lease shall not deprive Landlord of any other rights or remedies Landlord may have nor shall such application by Landlord constitute a waiver by Landlord.

**7.3 Transfer of Letter of Credit.** In the event that Landlord transfers its interest in the Premises, Tenant shall upon notice from and at no cost to Landlord, deliver to Landlord an amendment to the Letter of Credit or a replacement Letter of Credit naming Landlord's successor as the beneficiary thereof. If Tenant fails to deliver such amendment or replacement within ten (10) days after written notice from Landlord, Landlord shall have the right to draw down the entire amount of the Letter of Credit and hold the proceeds thereof in accordance with Section 7.5 below.

**7.4 Credit of Issuer of Letter of Credit.** In event of a material adverse change in the financial position of any bank or institution which has issued the Letter of Credit or any replacement Letter of Credit hereunder, Landlord reserves the right to require that Tenant change the issuing bank or institution to another bank or institution reasonably approved by Landlord. Tenant shall, within ten (10) days after receipt of written notice from Landlord, which notice shall include the basis for Landlord's reasonable belief that there has been a material adverse change in the financial position of the issuer of the Letter of Credit, replace the then-outstanding letter of credit with a like Letter of Credit from another bank or institution approved by Landlord.

**7.5 Cash Proceeds of Letter of Credit.** Landlord shall hold the Cash Security Deposit and/or the balance of proceeds remaining after a draw on the Letter of Credit (each hereinafter referred to as the "**Security Deposit**") as security for Tenant's performance of all its Lease obligations. After an Event of Default, Landlord may apply the Security Deposit, or any part thereof, to Landlord's damages without prejudice to any other Landlord remedy. Landlord has no obligation to pay interest on the Security Deposit and may co-mingle the Security Deposit with Landlord's funds. If Landlord conveys its

16

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interest under this Lease, the Security Deposit, or any part not applied previously, may be turned over to the grantee in which case Tenant shall look solely to the grantee for the proper application and return of the Security Deposit.

**7.6 Return of Security Deposit or Letter of Credit.** Should Tenant comply with all of such terms, covenants and conditions and promptly pay all sums payable by Tenant to Landlord hereunder, the Security Deposit and/or Letter of Credit or the remaining proceeds therefrom, as applicable, shall be returned to Tenant within forty-five (45) days after the end of the Term, less any portion thereof which may have been utilized by Landlord to cure any default or applied to any actual damage suffered by Landlord.

## **8. RIGHT OF FIRST OFFER.**

**8.1 Right of First Offer.** Subject to the provisions of this Section 8, from and after the Term Commencement Date, and provided that as of the date of the ROFO Notice (hereinafter defined) (i) there has been no Event of Default nor an event which, with the passage of time and/or the giving of notice would constitute an Event of Default hereunder (it being understood that if Tenant cures a default prior to the expiration of any applicable grace period, Tenant shall then be entitled to exercise its rights under this Section 8, so long as the condition in subsection (ii) hereafter is met), and (ii) Tenant is in occupancy of at least twenty thousand (20,000) rentable square feet in the Building, Tenant shall have a one-time right of first offer to lease other space in the Building (the "**ROFO Space**") if, as and when the same shall become available for lease upon the expiration of a lease to a third party, upon the terms and conditions specified in the ROFO Notice. For clarification purposes, if the balance of the Building is leased to two (2) or more different tenants, then Tenant's rights under this Section 8 shall apply once to each of the separate premises. It is understood and agreed that Base Rent for any ROFO Space shall be fair market rent.

### **8.2 Offer and Acceptance Procedures for Right of First Offer.**

(a) Within fifteen (15) business days after Landlord determines, in its reasonable judgment, that any ROFO Space is available for lease and all of the preconditions to the right of first offer granted to Tenant in this Section 8 have been met, Landlord shall deliver to Tenant a written notice offering to lease the ROFO Space to Tenant upon the terms and conditions set forth therein (the "**ROFO Notice**"). Tenant then shall have ten (10) days after receipt of the ROFO Notice to notify Landlord in writing whether Tenant will exercise its right to lease the ROFO Space upon the terms and conditions described in the ROFO Notice (which may include a term that extends beyond the Expiration Date).

(b) If Tenant fails to notify Landlord in writing within such 10-day period that Tenant accepts the offer contained in the ROFO Notice, or if Tenant refuses in writing the offer contained in the ROFO Notice, Landlord shall have the right to lease the ROFO Space to any third party tenant on whatever terms and conditions Landlord may decide in its sole discretion, provided that such terms are not less than ninety percent (90%) of the net effective rent (hereinafter defined) set forth in the ROFO Notice. As used herein, the term "**net effective rent**" shall mean the net present value of the rent, additional rent, and other charges that would be payable to Landlord under the terms of any proposed lease, taking into account any construction allowance, the cost of any leasehold improvements proposed to be performed by Landlord, any free rent, and any other monetary inducements payable by Landlord under such proposed lease.

(c) If Tenant timely notifies Landlord of its desire to lease the ROFO Space pursuant to this Section 8.2, Landlord shall submit to Tenant, and Tenant shall execute and deliver to Landlord within thirty (30) days of receipt thereof, a lease amendment which incorporates all of the terms and conditions set forth in the ROFO Notice. Landlord and Tenant shall reasonably diligently negotiate such lease amendment in good faith. If Tenant fails to execute and deliver the lease amendment within said

17

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thirty (30) day period, subject to reasonable extensions of time if the parties are negotiating significant terms in good faith, then subject to the provisions of Section 8.2(b) above, Tenant's right to lease the ROFO Space in question shall terminate and shall be null and void, and Landlord shall have no further obligation to lease such ROFO Space to Tenant and may lease any or all of such ROFO Space to another party upon such terms and conditions as Landlord may deem appropriate, free and clear of any rights in favor of Tenant contained herein.

**8.3 Termination of Rights.** All rights of Tenant under this Section 8 shall terminate upon the expiration or earlier termination of the Term of this Lease.

**8.4 Rights Personal to Tenant.** Except in connection with a Transfer (hereinafter defined) pursuant to Section 13 below, Tenant may not assign, mortgage, pledge, encumber or otherwise transfer its interest or rights under this Section 8, and any such purported transfer or attempt to transfer shall be void and without effect, shall terminate Tenant's rights under this Section 8, and shall constitute an Event of Default under this Lease.

**8.5 Time is of the Essence. Time is of the essence with respect to all aspects of this Section 8.**

## **9. UTILITIES, LANDLORD'S SERVICES**

**9.1 Electricity and Gas.** Commencing on the Term Commencement Date, Tenant shall pay all charges for electricity and gas furnished to the Premises and any equipment exclusively serving the Premises, together with any governmental or third party fees, surcharges or taxes thereon. As part of Landlord's Work, Landlord shall, at Landlord's sole cost and expense, cause to be installed metering equipment to measure electricity and gas furnished to the Premises and any equipment exclusively serving the Premises. Landlord shall, at Tenant's sole cost and expense, maintain and keep in good order, condition and repair such metering equipment. Tenant shall pay the full amount of any charges attributable to such meters on or before the due date therefor directly to the supplier thereof.

**9.2 Water.** Tenant shall pay all charges for water furnished to the Premises and/or any equipment exclusively serving the Premises as additional rent, based on Landlord's reasonable estimates or any applicable metering equipment. At Tenant's request, Landlord shall provide Tenant with reasonable back-up documentation regarding the total charges and the method of allocating the charges to Tenant. If not separately metered, Landlord may elect to furnish and install in a location approved by Landlord in or near the Premises any necessary metering equipment reasonably acceptable to Landlord and the supplier thereof to be used to measure water furnished to the Premises and any equipment exclusively serving the same. If applicable, Tenant shall, at Tenant's sole cost and expense, maintain and keep in good order, condition and repair the metering equipment used to measure water furnished to the Premises and any equipment exclusively serving the same. Tenant shall pay the full amount of any charges attributable to such meter on or before the due date therefor either to Landlord or directly to the supplier thereof, at Landlord's election.

**9.3 Other Utilities.** Subject to Landlord's reasonable rules and regulations governing the same, Tenant shall obtain and pay, as and when due, for all other utilities and services consumed in and/or furnished to the Premises, together with all taxes, penalties, surcharges and maintenance charges pertaining thereto.

**9.4 Interruption or Curtailment of Utilities.** When necessary by reason of accident or emergency, or for repairs, alterations, replacements or improvements which in the reasonable judgment of Landlord are desirable or necessary to be made, Landlord reserves the right, upon as much prior notice to Tenant as is practicable under the circumstances and no less than five (5) days' notice except in the

event of an emergency, to interrupt, curtail, or stop (i) the furnishing of hot and/or cold water, and (ii) the operation of the plumbing and electric systems. Landlord shall exercise reasonable diligence to eliminate the cause of any such interruption, curtailment, stoppage or suspension, but, subject to Section 5.6 above, there shall be no diminution or abatement of Rent or other compensation due from Landlord to Tenant hereunder, nor shall this Lease be affected or any of Tenant's obligations hereunder reduced, and Landlord shall have no responsibility or liability for any such interruption, curtailment, stoppage, or suspension of services or systems.

**9.5 Landlord's Services.** Subject to reimbursement pursuant to Section 5.2 above, Landlord shall provide the services described in Exhibit 8 attached hereto and made a part hereof ("**Landlord's Services**").

## 10. MAINTENANCE AND REPAIRS

**10.1 Maintenance and Repairs by Tenant.** Tenant shall keep neat and clean and free of trash, insects, rodents, vermin and other pests and in good repair, order and condition the Premises, including without limitation the entire interior of the Premises, all electronic, phone and data cabling and related equipment (collectively, "**Cable**") that is installed by or for the exclusive benefit of the Tenant and located in the Premises, all fixtures, equipment and lighting therein, electrical equipment wiring, doors, non structural walls, windows and floor coverings, reasonable wear and tear and damage by Casualty excepted. Tenant shall be solely responsible, at Tenant's sole cost and expense, for the proper maintenance of all building systems, life-safety, sanitary, electrical, heating, air conditioning, plumbing, security or other systems and of all equipment and appliances exclusively serving the Premises. Tenant agrees to provide regular maintenance by contract with a reputable qualified service contractor reasonably approved by Landlord for the heating and air conditioning equipment servicing the Premises, Landlord hereby agreeing to respond to any request for such approval within ten (10) days. Such maintenance contract shall be subject to Landlord's reasonable approval. Tenant, at Landlord's request, shall at reasonable intervals provide Landlord with copies of such contracts and maintenance and repair records and/or reports. In addition, Tenant shall maintain in good repair, order and condition the Movable Benches (as defined in Exhibit 3), reasonable wear and tear and damage by Casualty excepted.

**10.2 Maintenance and Repairs by Landlord.** Except as otherwise provided in Section 15, and subject to Tenant's obligations in Section 10.1 above, Landlord shall (a) maintain and keep in good and watertight repair, order and condition the Building foundation, the roof, Building structure, structural floor slabs and columns in good repair, order and condition, and (b) maintain and keep in good repair, order and condition the Building systems (including without limitation the life-safety, sanitary, electrical, heating, air conditioning, plumbing and security systems) not exclusively serving the Premises. In addition, Landlord shall operate and maintain the Common Areas (including without limitation the landscaping and parking areas) in substantially the same manner as comparable combination office and laboratory facilities in the vicinity of the Premises. Without limiting the generality of the foregoing, Landlord shall use commercially reasonable efforts to clear snow from the parking areas and walkways and entrances servicing the Building prior to eight o'clock in the morning (8:00 am).

**10.3 Accidents to Sanitary and Other Systems.** Tenant shall give to Landlord prompt notice of any fire or accident in the Premises or in the Building and of any damage to, or defective condition in, any part or appurtenance of the Building including, without limitation, sanitary, electrical, ventilation, heating and air conditioning or other systems located in, or passing through, the Premises, Except as otherwise provided in Section 15, and subject to Tenant's obligations in Section 10.1 above, such damage or defective condition shall be remedied by Landlord with reasonable diligence, but, subject to Section 14.5 below, if such damage or defective condition was caused by any of the Tenant Parties, the cost to remedy the same shall be paid by Tenant,

**10.4 Floor Load—Heavy Equipment.** Tenant shall not place a load upon any floor of the Premises exceeding the floor load per square foot of area which such floor was designed to carry and which is allowed by Legal Requirements. Landlord reserves the right to prescribe the weight and position of all safes, heavy machinery, heavy equipment, freight, bulky matter or fixtures (collectively, "**Heavy Equipment**"), which shall be placed so as to distribute the weight. Heavy Equipment shall be placed and maintained by Tenant at Tenant's expense in settings sufficient in Landlord's reasonable judgment to absorb and prevent vibration, noise and annoyance. Tenant shall not move any Heavy Equipment into or out of the Building without giving Landlord prior written notice thereof and observing all of Landlord's Rules and Regulations with respect to the same. If such Heavy Equipment requires special handling, Tenant agrees to employ only persons holding a Master Rigger's License to do said work, and that all work in connection therewith shall comply with Legal Requirements. Any such moving shall be at the sole risk and hazard of Tenant and Tenant will defend, indemnify and save Landlord and Landlord's agents (including without limitation its property manager), contractors and employees (collectively with Landlord, the "**Landlord Parties**") harmless from and against any and all claims, damages, losses, penalties, costs, expenses and fees (including without limitation reasonable legal fees) (collectively, "**Claims**") resulting directly or indirectly from such moving. Proper placement of all Heavy Equipment in the Premises shall be Tenant's responsibility.

## 11. ALTERATIONS AND IMPROVEMENTS BY TENANT

**11.1 Landlord's Consent Required.** Tenant shall not make any alterations, decorations, installations, removals, additions or improvements (collectively, "**Alterations**") in or to the Premises without Landlord's prior written approval of the contractor(s), written plans and specifications and a time schedule therefor. Landlord reserves the right to require that Tenant use Landlord's designated vendor(s) for any Alterations that involve roof penetrations or the sprinkler system. Tenant shall not make any material amendments or material additions to plans and specifications approved by Landlord without Landlord's prior written consent. Landlord's approval of non-structural Alterations shall not be unreasonably withheld, conditioned or delayed. Notwithstanding the foregoing, Landlord may withhold its consent in its sole discretion (a) to any Alteration to or affecting the fixed lab benches, fume hoods, roof and/or building systems, (b) with respect to matters of aesthetics relating to Alterations to or affecting the exterior of the Building, and (c) to any Alteration affecting the Building structure. Notwithstanding the foregoing, Landlord's consent shall not be required with respect to any Alterations that are purely decorative in nature (including without limitation, painting, carpeting and the hanging of pictures and the like that are not visible from outside the Premises) (each, a "**Decorative Alteration**") nor with respect to non-structural Alterations costing less than \$75,000 in any one instance (and \$125,000 in the aggregate per year) so long as such Alterations do not materially adversely affect the roof, Building systems or Building exterior (each, a "**Permitted Alteration**"), provided Tenant shall provide Landlord with reasonably detailed prior written notice of any Permitted Alteration. Tenant shall be responsible for all elements of the design of Tenant's plans (including, without limitation, compliance with Legal Requirements, functionality of design, the structural integrity of the design, the configuration of the Premises and the placement of Tenant's furniture, appliances and equipment), and Landlord's approval of Tenant's plans shall in no event relieve Tenant of the responsibility for such design, Landlord shall have no liability or responsibility for any claim, injury or damage alleged to have been caused by the particular materials (whether building standard or non-building standard), appliances or equipment selected by Tenant in connection with any work performed by or on behalf of Tenant. Except as otherwise expressly set forth herein, all Alterations shall be done at Tenant's sole cost and expense and at such times and in such manner as Landlord may from time to time reasonably designate. If Tenant shall make any Alterations (other than Decorative Alterations), then Landlord may elect to require Tenant at the expiration or sooner termination of the Term to restore the Premises to substantially the same condition as existed immediately prior to the Alterations, provided, however, if Tenant's request for approval of such plans also requests that Landlord make such election, or if Tenant's notice of any Permitted Alterations also requests that Landlord make such election, then Landlord shall make such election at the time of

Landlord's approval of the plans for the Alteration in question or reasonably promptly after receipt of the reasonably detailed notice of the Permitted Alteration, as the case may be, If reasonably requested by Landlord, Tenant shall provide Landlord with reproducible record drawings (in CAD format) of all Alterations (other than Decorative Alterations) within sixty (60) days after completion thereof. Landlord agrees to respond to any request for approval of any Alterations within twenty (20) business days after receipt thereof; provided, however, that Landlord agrees to respond to any request for approval of any of Alterations within ten (10) business days after receipt thereof if such request is accompanied by (A) a certification from a licensed code engineer that the plans for such Alterations submitted with such request are code compliant, and (B) a certification from Landlord's MEP engineer that such plans are compatible with the base building design.

**11.2 After-Hours.** Landlord and Tenant recognize that to the extent Tenant elects to perform some or all of the Alterations during times other than normal construction hours (i.e., Monday-Friday, 7:00 a.m. to 3:00 p.m., excluding holidays) and such Alterations include work outside the Premises, Landlord may need to make arrangements to have supervisory personnel on site. Accordingly, Landlord and Tenant agree as follows: Tenant shall give Landlord at least two (2) business days' prior written notice of any time outside of normal construction hours when Tenant intends to perform any Alterations that include work outside the Premises (the "**After-Hours Work**"). Tenant shall reimburse Landlord, within ten (10) days after demand therefor, for the cost of Landlord's supervisory personnel overseeing the After-Hours Work. In addition, if construction during normal construction hours unreasonably disturbs other tenants of the Building, in Landlord's sole discretion, Landlord may require Tenant to stop the performance of Alterations during normal construction hours and to perform the same after hours, subject to the foregoing requirement to pay for the cost of Landlord's supervisory personnel, if applicable.

**11.3 Harmonious Relations.** Tenant agrees that it will not, either directly or indirectly, use any contractors and/or materials if their use will create any difficulty, whether in the nature of a labor dispute or otherwise, with other contractors and/or labor engaged by Tenant or Landlord or others in the construction, maintenance and/or operation of the Building, the Property or any part thereof. In the event of any such difficulty, upon Landlord's request, Tenant shall cause all contractors, mechanics or laborers causing such difficulty to leave the Property immediately.

**11.4 Liens.** No Alterations shall be undertaken by Tenant until (i) Tenant has made provision for written waiver of liens from all contractors for such Alteration and taken other appropriate protective measures approved and/or required by Landlord; and (ii) Tenant has procured appropriate surety payment and performance bonds which shall name Landlord as an additional obligee and has filed lien bond(s) (in jurisdictions where available) on behalf of such contractors. Any mechanic's lien filed against the Premises or the Building for work claimed to have been done for, or materials claimed to have been furnished to, Tenant shall be discharged by Tenant within ten (10) days thereafter, at Tenant's expense by filing the bond required by law or otherwise.

**11.5 General Requirements.** Unless Landlord and Tenant otherwise agree in writing, Tenant shall (a) procure or cause others to procure on its behalf all necessary permits before undertaking any Alterations in the Premises (and provide copies thereof to Landlord); (b) perform all of such Alterations in a good and workmanlike manner, employing materials of good quality and in compliance with Landlord's construction rules and regulations, all insurance requirements of this Lease, and Legal Requirements; and (c) defend, indemnify and hold the Landlord Parties harmless from and against any and all Claims occasioned by or growing out of such Alterations. Tenant shall cause contractors employed by Tenant to (i) carry Worker's Compensation Insurance in accordance with statutory requirements, (ii) carry Automobile Liability Insurance and Commercial General Liability Insurance (A) naming Landlord as an additional insured, and (B) covering such contractors on or about the Premises in the amounts stated in Section 14 hereof or in such other reasonable amounts as Landlord shall require, and (iii) submit binders evidencing such coverage to Landlord prior to the commencement of any such

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Alterations.

## 12. SIGNAGE

**12.1 Restrictions.** Tenant shall have the right to install Building standard signage identifying Tenant's business at the entrance to the Premises, which signage shall be subject to Landlord's prior written consent (which consent shall not be unreasonably withheld, conditioned or delayed). Subject to the foregoing, and subject to Section 12.2 below, Tenant shall not place or suffer to be placed or maintained on the exterior of the Premises, or any part of the interior visible from the exterior thereof, any sign, banner, advertising matter or any other thing of any kind (including, without limitation, any hand-lettered advertising), and shall not place or maintain any decoration, letter or advertising matter on the glass of any window or exterior of the door of the Premises without first obtaining Landlord's written approval. No signs or blinds may be put on or in any window or elsewhere if visible from the exterior of the Building.

**12.2 Exterior Signage.** Provided that and for so long as Tenant is then occupying at least forty percent (40%) of the rentable square feet of the Building, Tenant shall have the right to erect and maintain one (1) sign on the exterior of the Building and one (1) sign on the exterior door to the Premises, the aggregate size of which shall not exceed fifty percent (50%) of the exterior Building signage allowed by Legal Requirements (the "**Exterior Signage**"), provided (i) the Exterior Signage complies with all Legal Requirements (and Tenant shall have obtained any necessary permits prior to erecting the Exterior Signage), (ii) the location of the Exterior Signage shall be subject to Landlord's reasonable approval, (iii) the materials, design, lighting and method of installation of the Exterior Signage, and any requested changes thereto, shall be subject to Landlord's prior written approval, which approval shall not be unreasonably withheld, conditioned or delayed, and (iv) Tenant shall at all times maintain the Exterior Signage in good order, condition and repair and shall remove the Exterior Signage at the expiration or earlier termination of the Term hereof or upon Landlord's written demand after the failure of Tenant to comply with the provisions of this Section 12.2, and shall repair any damage to the Building caused by the Exterior Signage or the installation or removal thereof. Tenant shall have the right, from time to time throughout the term of this Lease, to replace its signage (if any) with signage which is equivalent to the signage being replaced, subject to all of the terms and conditions of this Section 12.2.

## 13. ASSIGNMENT, MORTGAGING AND SUBLETTING

**13.1 Landlord's Consent Required.** Except as expressly otherwise set forth herein, Tenant shall not, without Landlord's prior written consent (which consent shall not be unreasonably withheld, conditioned or delayed), assign, sublet, mortgage, license, transfer or encumber this Lease or the Premises in whole or in part, whether at one time or at intervals, or permit the occupancy of all or any portion of the Premises by any person or entity other than Tenant's employees (each of the foregoing, a "**Transfer**"). Any purported Transfer made without Landlord's consent, if required hereunder, shall be void and confer no rights upon any third person, provided that if there is a Transfer, Landlord may collect rent from the transferee without waiving the prohibition against Transfers, accepting the transferee, or releasing Tenant from full performance under this Lease. In the event of any Transfer in violation of this Section 13, Landlord shall have the right to terminate this Lease upon thirty (30) days' written notice to Tenant given within sixty (60) days after the later of (i) receipt of written notice from Tenant to Landlord of such Transfer, or (ii) the date on which Landlord first learns of the Transfer if no notice is given. No Transfer shall relieve Tenant of its primary obligation as party-Tenant hereunder, nor shall it reduce or increase Landlord's obligations under this Lease.

### 13.2 Landlord's Recapture Right

- (a) Tenant shall, prior to offering or advertising the Premises or any portion thereof

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for a Transfer to any entity other than an Affiliated Entity or a Successor, give a written notice (the "**Recapture Notice**") to Landlord which: (i) states that Tenant desires to make a Transfer, (ii) identifies the affected portion of the Premises (the "**Recapture Premises**"), (iii) identifies the period of time (the "**Recapture Period**") during which Tenant proposes to sublet the Recapture Premises, or indicates that Tenant proposes to assign its interest in this Lease, and (iv) offers to Landlord to terminate this Lease with respect to the Recapture Premises (in the case of a proposed assignment of Tenant's interest in this Lease or a subletting for the remainder of the term of this Lease) or to suspend the Term for the Recapture Period (i.e. the Term with respect to the Recapture Premises shall be terminated during the Recapture Period and Tenant's rental obligations shall be proportionately reduced). Landlord shall have fifteen (15) business days within which to respond to the Recapture Notice.

(b) If Tenant does not enter into a Transfer on the terms and conditions contained in the Recapture Notice on or before the date which is one hundred eighty (180) days after the earlier of: (x) the expiration of the 15-business day period specified in Section 13.2(a) above, or (y) the date that Landlord notifies Tenant that Landlord will not accept Tenant's offer contained in the Recapture Notice, *time being of the essence*, then prior to entering into any Transfer after such 180-day period, Tenant must deliver to Landlord a new Recapture Notice in accordance with Section 13.2(a) above

(c) Notwithstanding anything to the contrary contained herein, if Landlord notifies Tenant that it accepts the offer contained in the Recapture Notice or any subsequent Recapture Notice, Tenant shall have the right, for a period of fifteen (15) days following receipt of such notice from Landlord, *time being of the essence*, to notify Landlord in writing that it wishes to withdraw such offer and this Lease shall continue in full force and effect.

**13.3 Standard of Consent to Transfer.** If Landlord does not timely give written notice to Tenant accepting a Recapture Offer or declines to accept the same, then Landlord agrees that, subject to the provisions of this Section 13, Landlord shall not unreasonably withhold, condition or delay its consent to a Transfer on the terms contained in the Recapture Notice to an entity which will use the Premises for the Permitted Uses and, in Landlord's reasonable opinion: (a) has a tangible net worth and other financial indicators sufficient to meet the Transferee's obligations under the Transfer instrument in question; (b) has a business reputation compatible with the operation of a first-class combination laboratory, research, development and office building; and (c) the intended use of such entity does not violate any restrictive use provisions then in effect with respect to space in the Building.

**13.4 Listing Confers no Rights.** The listing of any name other than that of Tenant, whether on the doors of the Premises or on the Building directory, or otherwise, shall not operate to vest in any such other person, firm or corporation any right or interest in this Lease or in the Premises or be deemed to effect or evidence any consent of Landlord, it being expressly understood that any such listing is a privilege extended by Landlord revocable at will by written notice to Tenant.

**13.5 Profits In Connection with Transfers.** Tenant shall, within thirty (30) days of receipt thereof, pay to Landlord fifty percent (50%) of any rent, sum or other consideration to be paid or given in connection with any Transfer, either initially or over time (after deducting reasonable actual out-of-pocket marketing, legal, brokerage and construction expenses and any improvement allowance and cash concession incurred by Tenant in connection therewith) in excess of Rent hereunder as if such amount were originally called for by the terms of this Lease as additional rent.

**13.6 Prohibited Transfers.** Notwithstanding any contrary provision of this Lease, Tenant shall have no right to make a Transfer unless on both (i) the date on which Tenant notifies Landlord of its intention to enter into a Transfer and (ii) the date on which such Transfer is to take effect, Tenant is not in default of any of its obligations under this Lease (provided, however, if Tenant cures any default prior to the expiration of applicable cure periods set forth in Section 20 below, then Tenant shall then be entitled

to make such Transfer). Notwithstanding anything to the contrary contained herein, Tenant agrees that in no event shall Tenant make a Transfer to (a) any government agency; (b) any tenant, subtenant or occupant of other space in the Building unless Landlord does not have any comparable space available to lease to such tenant, subtenant or occupant directly; or (c) any entity other than Tenant's Affiliated Entity or Successor to whom Landlord has an outstanding proposal (that has not been rejected) for space in the Property.

**13.7 Exceptions to Requirement for Consent.** Notwithstanding anything to the contrary herein contained, Tenant shall have the right, without obtaining Landlord's consent and without giving Landlord a Recapture Notice, to make a Transfer to (a) an Affiliated Entity (hereinafter defined) so long as such entity remains in such relationship to Tenant, and (b) a Successor, provided that prior to or simultaneously with any such Transfer, such Affiliated Entity or Successor, as the case may be, and Tenant execute and deliver to Landlord an assignment and assumption agreement in form and substance reasonably acceptable to Landlord whereby such Affiliated Entity or Successor, as the case may be, shall agree to be independently bound by and upon all the covenants, agreements, terms, provisions and conditions set forth in the Lease on the part of Tenant to be performed, and whereby such Affiliated Entity or Successor, as the case may be, shall expressly agree that the provisions of this Section 13 shall, notwithstanding such Transfer, continue to be binding upon it with respect to all future Transfers. For the purposes hereof, an "Affiliated Entity" shall be defined as any entity (a) that has a net worth and other financial indicators demonstrating such entity's ability to perform all of Tenant's obligations hereunder, as evidenced by audited financial statements; and (b) which is controlled by, is under common control with, or which controls Tenant. For the purposes hereof, a "Successor" shall be defined as any entity into or with which Tenant is merged or with which Tenant is consolidated or which acquires all or substantially all of Tenant's stock or assets, provided that the surviving entity shall have a net worth and other financial indicators sufficient to meet Tenant's obligations hereunder.

## 14. INSURANCE; INDEMNIFICATION; EXCULPATION

### 14.1 Tenant's Insurance.

(a) Tenant shall procure, pay for and keep in force throughout the Term (and for so long thereafter as Tenant remains in occupancy of the Premises) commercial general liability insurance insuring Tenant on an occurrence basis against all claims and demands for personal injury liability (including, without limitation, bodily injury, sickness, disease, and death) or damage to property which may be claimed to have occurred from and after the time any of the Tenant Parties shall first enter the Premises, of not less than One Million Dollars (\$1,000,000) per occurrence, Two Million (\$2,000,000) aggregate, and during the Extension Term shall be not less than such higher amounts, if procurable, as may be reasonably required by Landlord. Tenant shall also carry umbrella liability coverage in an amount of no less than Five Million Dollars (\$5,000,000). Such policy shall also include contractual liability coverage covering Tenant's liability assumed under this Lease, including without limitation Tenant's indemnification obligations. Such insurance policy(ies) shall name Landlord, Landlord's managing agent and persons claiming by, through or under them, if any, as additional insureds.

(b) Tenant shall take out and maintain throughout the Term a policy of fire, vandalism, malicious mischief, extended coverage and so-called "all risk" coverage insurance in an amount equal to one hundred percent (100%) of the replacement cost insuring (i) all items or components of Alterations made by or on behalf of Tenant other than the Base Building Work, including without limitation the Tenant Fitout (collectively, the "**Tenant-Insured Improvements**"), and (ii) all of Tenant's furniture, equipment, fixtures and property of every kind, nature and description related or arising out of Tenant's leasehold estate hereunder, which may be in or upon the Premises or the Building, including without limitation Tenant's Rooftop Equipment (collectively, "**Tenant's Property**," ) and the Movable Benches (as defined in Exhibit 3). Such insurance with respect to the Tenant-Insured Improvements shall

insure the interests of both Landlord and Tenant as their respective interests may appear from time to time.

(c) Intentionally Omitted.

(d) Tenant shall procure and maintain at its sole expense such additional insurance as may be necessary to comply with any Legal Requirements.

(e) The insurance required pursuant to Sections 14.1(a), (b), (c) and (d) (collectively, "**Tenant's Insurance Policies**") shall be effected with insurers approved by Landlord, with a rating of not less than "A-XI" in the current *Best's Insurance Reports*, and authorized to do business in the Commonwealth of Massachusetts under valid and enforceable policies. Tenant's Insurance Policies shall each provide that it shall not be canceled or modified in a manner such that it no longer complies with the requirements set forth herein without at least thirty (30) days' prior written notice to each insured named therein. Tenant's Insurance Policies may include deductibles in an amount no greater than the greater of \$25,000 or commercially reasonable amounts. On or before the date on which any of the Tenant Parties shall first enter the Premises and thereafter not less than fifteen (15) days prior to the expiration date of each expiring policy, Tenant shall deliver to Landlord binders of Tenant's Insurance Policies issued by the respective insurers setting forth in full the provisions thereof together with evidence satisfactory to Landlord of the payment of all premiums for such policies. In the event of any claim, and upon Landlord's request, Tenant shall deliver to Landlord complete copies of Tenant's Insurance Policies. Upon request of Landlord, Tenant shall deliver to any Mortgagee copies of the foregoing documents.

**14.2 Indemnification.** Except to the extent caused by the negligence or willful misconduct of any of the Landlord Parties, Tenant shall defend, indemnify and save the Landlord Parties harmless from and against any and all Claims (as defined in Section 10.4) asserted by or on behalf of any person, firm, corporation or public authority arising from:

(a) Tenant's breach of any covenant or obligation under this Lease;

(b) Any injury to or death of any person, or loss of or damage to property, sustained or occurring in, upon, at or about the Premises;

(c) Any injury to or death of any person, or loss of or damage to property arising out of the use or occupancy of the Premises by or the negligence or willful misconduct of any of the Tenant Parties; and

(d) On account of or based upon any work or thing whatsoever done (other than by Landlord or any of the Landlord Parties) at the Premises during the Term and during the period of time, if any, prior to the Term Commencement Date that any of the Tenant Parties may have been given access to the Premises.

**14.3 Property of Tenant.** Tenant covenants and agrees that, to the maximum extent permitted by Legal Requirements, all of Tenant's Property at the Premises shall be at the sole risk and hazard of Tenant, and that if the whole or any part thereof shall be damaged, destroyed, stolen or removed from any cause or reason whatsoever, no part of said damage or loss shall be charged to, or borne by, Landlord, except, subject to Section 14.5 hereof, to the extent such damage or loss is due to the negligence or willful misconduct of any of the Landlord Parties.

**14.4 Limitation of Landlord's Liability for Damage or Injury.** Landlord shall not be liable for any injury or damage to persons or property resulting from fire, explosion, falling plaster, steam, gas, air contaminants or emissions, electricity, electrical or electronic emanations or disturbance, water, rain or

snow or leaks from any part of the Building or from the pipes, appliances, equipment or plumbing works or from the roof, street or sub-surface or from any other place or caused by dampness, vandalism, malicious mischief or by any other cause of whatever nature, except in all cases to the extent caused by or due to the negligence or willful misconduct of any of the Landlord Parties, and then, where notice and an opportunity to cure are appropriate (i.e., where (i) Landlord does not know of such condition and (ii) Tenant knows of such condition sufficiently in advance of the occurrence of any such injury or damage resulting therefrom and can enable Landlord to prevent such damage or loss by notifying Landlord of such condition) only after (i) notice to Landlord of the condition claimed to constitute negligence or willful misconduct, and (ii) the expiration of a reasonable time after such notice has been received by Landlord without Landlord having commenced to take all reasonable and practicable means to cure or correct such condition; and pending such cure or correction by Landlord, Tenant shall take all reasonably prudent temporary measures and safeguards to prevent any injury, loss or damage to persons or property. Notwithstanding the foregoing, in no event shall any of the Landlord Parties be liable for any loss which is covered by insurance policies actually carried or required to be so carried by this Lease; nor shall any of the Landlord Parties be liable for any such damage caused by other tenants or persons in the Building or caused by operations in construction of any private, public, or quasi-public work by any entity or person other than the Landlord Parties.

**14.5 Waiver of Subrogation; Mutual Release.** Landlord and Tenant each hereby waives on behalf of itself and its property insurers (none of which shall ever be assigned any such claim or be entitled thereto due to subrogation or otherwise) any and all rights of recovery, claim, action, or cause of action against the other and its agents, officers, servants, partners, shareholders, or employees (collectively, the “**Related Parties**”) for any loss or damage that may occur to or within the Premises or the Building or any improvements thereto, or any personal property of such party therein which is insured against under any properly insurance policy actually being maintained by the waiving party from time to time, even if not required hereunder, or which would be insured against under the terms of any insurance policy required to be carried or maintained by the waiving party hereunder, whether or not such insurance coverage is actually being maintained, including, in every instance, such loss or damage that may be caused by the negligence of the other party hereto and/or its Related Parties. Landlord and Tenant each agrees to cause appropriate clauses to be included in its property insurance policies necessary to implement the foregoing provisions.

**14.6 Tenant’s Acts—Effect on Insurance.** Tenant shall not do or permit any Tenant Party to do any act or thing upon the Premises or elsewhere in the Building which Tenant knows will invalidate or be in conflict with any insurance policies covering the Building and the fixtures and property therein. If by reason of the failure of Tenant to comply with the provisions hereof the insurance rate applicable to any policy of insurance shall at any time thereafter be higher than it otherwise would be, Tenant shall reimburse Landlord upon demand for that part of any insurance premiums which shall have been charged because of such failure by Tenant, together with interest at the Default Rate until paid in full, within ten (10) days after receipt of an invoice therefor.

## 15. CASUALTY; TAKING

**15.1 Damage.** If the Premises are damaged in whole or part because of fire or other insured casualty (“**Casualty**”), or if the Premises are subject to a taking in connection with the exercise of any power of eminent domain, condemnation, or purchase under threat or in lieu thereof (any of the foregoing, a “**Taking**”), then unless this Lease is terminated in accordance with Section 15.2 below, Landlord shall commence and proceed diligently to restore (a) the Building and/or the Premises to substantially the same condition as existed on the Execution Date and (b) the Base Building Work, or in the event of a partial Taking which affects the Building and the Premises, restore the remainder of the Building and the Premises not so Taken to substantially such condition as is reasonably feasible. Subject to rights of Mortgagees, Tenant Delays, Legal Requirements then in existence and to delays for

26

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adjustment of insurance proceeds or Taking awards, as the case may be, and instances of Landlord’s Force Majeure, Landlord shall substantially complete such restoration within one (1) year after Landlord’s receipt of all required permits therefor with respect to substantial reconstruction of at least 50% of the Building, or, within one hundred eighty (180) days after Landlord’s receipt of all required permits therefor in the case of restoration of less than 50% of the Building. Upon substantial completion of such restoration by Landlord, Tenant shall use diligent efforts to complete restoration of the Premises to substantially the same condition as existed immediately prior to such Casualty or Taking, as the case may be, as soon as reasonably possible. Tenant agrees to cooperate with Landlord in such manner as Landlord may reasonably request to assist Landlord in collecting insurance proceeds due in connection with any Casualty which affects the Premises or the Building. In no event shall Landlord be required to expend more than the Net (hereinafter defined) insurance proceeds Landlord receives for damage to the Premises and/or the Building or the Net Taking award attributable to the Premises and/or the Building. “**Net**” means the insurance proceeds or Taking award actually paid to Landlord (and not paid over to a Mortgagee) less all costs and expenses, including adjusters and attorney’s fees, of obtaining the same. In the Operating Year in which a Casualty occurs, there shall be included in Operating Costs Landlord’s deductible under its property insurance policy. Landlord shall not be required to repair any damage to, or make any repairs to or replacements of, any Tenant-Insured Improvements.

### 15.2 Termination Rights.

(a) **Landlord’s Termination Rights.** Landlord may terminate this Lease upon thirty (30) days’ prior written notice delivered to Tenant on or before the date which is ninety (90) days after the Casualty or Taking, as the case may be, if:

- (i) any material portion of the Building or any material means of access thereto is taken;
- (ii) more than thirty-five percent (35%) of the Building is damaged by Casualty; or
- (iii) if the estimated time to complete restoration exceeds the timeframes set forth in Section 15.1 above.

If Landlord elects to exercise its right of termination under this Section 15.2(a), then Tenant’s obligation to pay Rent hereunder shall cease as of the earlier of the effective date of such termination, or the date on which Tenant is deprived of possession of all or a substantial portion of the Premises as a result of such Casualty or Taking.

(b) **Tenant’s Termination Right.** If Landlord is so required but fails to complete restoration of the Premises within the time frames and subject to the conditions set forth in Section 15.1 above, then Tenant may terminate this Lease upon thirty (30) days’ written notice to Landlord; provided, however, that if Landlord completes such restoration within thirty (30) days after receipt of any such termination notice, such termination notice shall be null and void and this Lease shall continue in full force and effect. The remedies set forth in this Section 15.2(b) and in Section 15.2(c) below are Tenant’s sole and exclusive rights and remedies based upon Landlord’s failure to complete the restoration of the Premises as set forth herein.

(c) **Either Party May Terminate.** In the case of any Casualty or Taking affecting the Premises and occurring during the last six (6) months of the Term, then (1) if such Casualty or Taking results in more than twenty-five percent (25%) of the floor area of the Premises being unsuitable for the Permitted Uses, or (ii) the damage to the Premises costs more than \$100,000 to restore, then either

27

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Landlord or Tenant shall have the option to terminate this Lease upon thirty (30) days’ written notice to the other.

(d) **Automatic Termination.** In the case of a Taking of the entire Premises, then this Lease shall automatically terminate as of the date of possession by the Taking authority.

**15.3 Taking for Temporary Use.** If the Premises are Taken for temporary use, this Lease and Tenant’s obligations hereunder shall continue, provided, however, all obligations of Tenant incapable of performance in the absence of possession of the Premises shall be suspended during such temporary Taking. For purposes hereof, a “**Taking for temporary use**” shall mean a Taking of ninety (90) days or less.

**15.4 Disposition of Awards.** Except for any separate award for Tenant’s movable trade fixtures, relocation expenses, and unamortized leasehold improvements paid for by Tenant (provided that the same may not reduce Landlord’s award), all Taking awards to Landlord or Tenant shall be Landlord’s property without Tenant’s participation, and Tenant hereby assigns to Landlord Tenant’s interest, if any, in such award. Tenant may pursue its own claim against the Taking authority.

**15.5 Assignment of Insurance Proceeds.** Tenant shall assign to Landlord all of its right, title and interest in and to the insurance proceeds for the Tenant-Insured Improvements (a) if the Lease Term shall expire prior to the completion of Tenant’s restoration obligations set forth in Section 15.1 above, or (b) if the Lease shall be terminated pursuant to any provision of this Lease prior to the completion of Tenant’s restoration obligations set forth in Section 15.1 above, or (c) if Tenant terminates this Lease pursuant to this Section 15.

**15.6 Abatement.** If all or any portion of the Premises are damaged by a Casualty or subject to a Taking, (a) Tenant shall use good faith efforts to collect proceeds of its business interruption insurance if it has procured such insurance; and (b) to the extent Tenant does not have such insurance or Tenant’s business interruption insurance does not fully cover Base Rent, Additional Rent on account of Operating Costs and Additional Rent on account of Taxes, then Base Rent, Additional Rent on account of Operating Costs and Additional Rent on account of Taxes shall be equitably abated for the period from the date of such Casualty or Taking until the date that Landlord substantially completes Landlord’s restoration work relating to the Premises (provided that if Landlord would have completed Landlord’s restoration work on an earlier date but for Tenant Delays, including without limitation Tenant having failed to reasonably cooperate with Landlord in effecting such work or collecting insurance proceeds, then the Premises shall be deemed to have been repaired and restored on such earlier date). In the event of a permanent Taking where the Lease is not terminated, a just proportion of the Rent shall be abated for the duration of the Term.

**16. ESTOPPEL CERTIFICATE.** Tenant shall at any time and from time to time upon not less than ten (10) business days’ prior written notice from Landlord, execute, acknowledge and deliver to Landlord a statement in writing certifying that this Lease is unmodified and in full force and effect (or if there have been modifications, that the same is in full force and effect as modified and stating the modifications), and the dates to which Rent has been paid in advance, if any, stating whether or not Landlord is in default in performance of any covenant, agreement, term, provision or condition contained in this Lease and, if so, specifying each such default, and such other facts as Landlord may reasonably request, it being intended that any such statement delivered pursuant hereto may be relied upon by any prospective purchaser of the Building or of any interest of Landlord therein, any Mortgagee or prospective Mortgagee thereof, any lessor or



## 17. HAZARDOUS MATERIALS

**17.1 Prohibition.** Tenant shall not, without the prior written consent of Landlord, bring or permit to be brought or kept in or on the Premises or elsewhere in the Building or the Property (i) any inflammable, combustible or explosive fluid, material, chemical or substance (except for standard office supplies stored in proper containers); and (ii) any Hazardous Material (hereinafter defined), other than the types and quantities of Hazardous Materials which are used in the ordinary course of Tenant's business and listed by class on Exhibit 6 attached hereto ("**Tenant's Hazardous Materials**"), provided that the same shall at all times be brought upon, kept or used in so-called 'control areas' (the number and size of which shall be reasonably determined by Landlord) and in accordance with all applicable Environmental Laws (hereinafter defined) and prudent environmental practice and (with respect to medical waste and so-called "biohazard" materials) good medical practice. Tenant shall be responsible for assuring that all laboratory uses are adequately and properly vented. On or before each anniversary of the Term Commencement Date, and upon Landlord's request (which request may be made no more often than once per year), Tenant shall submit to Landlord an updated list of Tenant's Hazardous Materials for Landlord's review and approval, which approval shall not be unreasonably withheld, conditioned or delayed. In addition, Tenant shall obtain Landlord's reasonable approval of any additional Hazardous Materials for which Tenant must obtain any permit, license or other governmental approval. Landlord shall have the right, from time to time, to inspect the Premises for compliance with the terms of this Section 17.1. Notwithstanding the foregoing, with respect to any of Tenant's Hazardous Materials which Tenant does not properly handle, store or dispose of in compliance with all applicable Environmental Laws (hereinafter defined), prudent environmental practice and (with respect to medical waste and so-called "biohazard materials) good medical practice, Tenant shall, upon written notice from Landlord, no longer have the right to bring such material into the Building or the Property until Tenant has demonstrated, to Landlord's reasonable satisfaction, that Tenant has implemented programs to thereafter properly handle, store or dispose of such material.

**17.2 Environmental Laws.** For purposes hereof, "**Environmental Laws**" shall mean all laws, statutes, ordinances, rules and regulations of any local, state or federal governmental authority having jurisdiction concerning environmental, health and safety matters, including but not limited to any discharge by any of the Tenant Parties into the air, surface water, sewers, soil or groundwater of any Hazardous Material (hereinafter defined) whether within or outside the Premises, including, without limitation (a) the Federal Water Pollution Control Act, 33 U.S.C. Section 1251 et seq., (b) the Federal Resource Conservation and Recovery Act, 42 U.S.C. Section 6901 et seq., (c) the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. Section 9601 et seq., (d) the Toxic Substances Control Act of 1976, 15 U.S.C. Section 2601 et seq., and (e) Chapter 21E of the General Laws of Massachusetts. Tenant, at its sole cost and expense, shall comply with (i) Environmental Laws, and (ii) any rules, requirements and safety procedures of the Massachusetts Department of Environmental Protection, the Town of Lexington and any insurer of the Building or the Premises with respect to Tenant's use, storage and disposal of any Hazardous Materials.

**17.3 Hazardous Material Defined.** As used herein, the term "**Hazardous Material**" means asbestos, oil or any hazardous, radioactive or toxic substance, material or waste or petroleum derivative which is or becomes regulated by any Environmental Law. The term "**Hazardous Material**" includes, without limitation, oil and/or any material or substance which is (i) designated as a "hazardous substance," "hazardous material," "oil," "hazardous waste" or toxic substance under any Environmental Law.

**17.4 Testing.** If any Mortgagee or governmental authority requires testing to determine whether there has been any release of Hazardous Materials and such testing is required as a result of the acts or omissions of any of the Tenant Parties, then Tenant shall reimburse Landlord upon demand, as additional rent, for the reasonable costs thereof, together with interest at the Default Rate until paid in full.

Tenant shall execute affidavits, certifications and the like, as may be reasonably requested by Landlord from time to time concerning Tenant's best knowledge and belief concerning the presence of Hazardous Materials in or on the Premises, the Building or the Property.

**17.5 Indemnity by Tenant.** Tenant hereby covenants and agrees to indemnify, defend and hold the Landlord Parties harmless from and against any and all Claims against any of the Landlord Parties arising out of contamination of any part of the Property or other adjacent property, which contamination arises as a result of: (i) the presence of Hazardous Material in the Premises, the presence of which is caused by any act or omission of any of the Tenant Parties, or (ii) from a breach by Tenant of its obligations under this Section 17. This indemnification of the Landlord Parties by Tenant includes, without limitation, reasonable costs incurred in connection with any investigation of site conditions or any cleanup, remedial, removal or restoration work required by any federal, state or local governmental agency or political subdivision because of Hazardous Material present in the soil or ground water on or under the Building based upon the circumstances identified in the first sentence of this Section 17.5. The indemnification and hold harmless obligations of Tenant under this Section 17.5 shall survive the expiration or any earlier termination of this Lease. Without limiting the foregoing, if the presence of any Hazardous Material in the Building or otherwise in the Property is caused by any of the Tenant Parties and results in any contamination of any part of the Property or any adjacent property, Tenant shall promptly take all reasonable actions at Tenant's sole cost and expense as are necessary to return the Property and/or the Building or any adjacent property to their condition as of the date of this Lease, provided that Tenant shall first obtain Landlord's approval of such actions, which approval shall not be unreasonably withheld, conditioned or delayed so long as such actions, in Landlord's reasonable discretion, would not potentially have any adverse effect on the Property, and, in any event, Landlord shall not withhold its approval of any proposed actions which are required by applicable Environmental Laws. The provisions of this Section 17.5 shall survive the expiration or earlier termination of the Lease.

**17.6 Disclosures.** Prior to bringing any Hazardous Material into any part of the Property, Tenant shall deliver to Landlord the following information with respect thereto: (a) a description of handling, storage, use and disposal procedures; (b) all plans or disclosures and/or emergency response plans which Tenant has prepared, including without limitation Tenant's Spill Response Plan, and all plans which Tenant is required to supply to any governmental agency or authority pursuant to any Environmental Laws; (c) copies of all Required Permits relating thereto (provided, however, if Tenant is verbally authorized by applicable governmental authorities to bring any Hazardous Material into any part of the Property pending the issuance of a Required Permit, then Tenant shall notify Landlord thereof prior to bringing such Hazardous Material into any part of the Property and Tenant shall provide Landlord with such Required Permit promptly after receipt thereof); and (d) other information reasonably requested by Landlord.

**17.7 Removal.** Tenant shall be responsible, at its sole cost and expense, for Hazardous Material and other biohazard disposal services for Hazardous Materials brought in, on, at, under or about the Premises by or on behalf of any of the Tenant Parties. Such services shall be performed by contractors reasonably acceptable to Landlord and on a sufficient basis to ensure that the Premises are at all times kept neat, clean and free of Hazardous Materials and biohazards except in appropriate, specially marked containers reasonably approved by Landlord.

**17.8 Landlord's Knowledge; Pre-Existing Contamination.** Landlord represents and warrants to Tenant that Landlord has no knowledge of (a) any Hazardous Materials at or affecting the Property other than as set forth in the documents listed on Exhibit 6A attached hereto and made a part hereof; (b) any underground storage tanks on the Property other than as may be set forth in the documents listed on said Exhibit 6A; nor (c) any action, proceeding or claim pending or threatened regarding the Property concerning any Hazardous Materials or pursuant to any Environmental Laws. Landlord shall, at its sole cost and expense, comply with all Environmental Laws with respect to the existence of Hazardous Materials in, on or at the Property as of the Execution Date. Except with respect to environmental costs

which expressly may be included in Operating Costs under Section 5.2(c) above, Landlord hereby covenants and agrees to indemnify, defend and hold the Tenant Parties harmless from and against any and all Claims against any of the Tenant Parties arising out of the existence of Hazardous Materials in, on, under or at the Property as of the Execution Date except to the extent that any of the Tenant Parties caused a release of the same or exacerbates a release of the same that occurred prior to the Execution Date.

## 18. RULES AND REGULATIONS.

**18.1 Rules and Regulations.** Tenant will faithfully observe and comply with all reasonable rules and regulations promulgated from time to time with respect to the Building, the Property and construction within the Property (collectively, the "**Rules and Regulations**"). The current version of the Rules and Regulations is attached hereto as Exhibit 7. In the case of any conflict between the provisions of this Lease and any future rules and regulations, the provisions of this Lease shall control. Nothing contained in this Lease shall be construed to impose upon Landlord any duty or obligation to enforce the Rules and Regulations or the terms, covenants or conditions in any other lease as against any other tenant and Landlord shall not be liable to Tenant for violation of the same by any other tenant, its servants, employees, agents, contractors, visitors, invitees or licensees.

**18.2 Energy Conservation.** Landlord may institute upon written notice to Tenant such policies, programs and measures as may be necessary, required, or expedient for the conservation and/or preservation of energy or energy services (collectively, the "**Conservation Program**"), provided however, that the Conservation Program does not, by reason of such policies,

programs and measures, reduce the level of energy or energy services being provided to the Premises below the level of energy or energy services then being provided in comparable combination laboratory, research and development and office buildings in the vicinity of the Premises, or as may be necessary or required to comply with Legal Requirements or standards or the other provisions of this Lease. Upon receipt of such notice, Tenant shall comply with the Conservation Program.

**18.3 Recycling.** Upon written notice, Landlord may establish policies, programs and measures for the recycling of paper, products, plastic, tin and other materials (a "**Recycling Program**"). Upon receipt of such notice, Tenant will comply with the Recycling Program at Tenant's sole cost and expense.

## 19. LAWS AND PERMITS.

**19.1 Legal Requirements.** Tenant shall be responsible at its sole cost and expense for complying with (and keeping the Premises in compliance with) all Legal Requirements which are applicable to Tenant's particular use or occupancy of, or Alterations made by or on behalf of Tenant (other than the Base Building Work) to, the Premises. Landlord shall be responsible for complying with Legal Requirements in effect as of the Term Commencement Date that are applicable to the performance and construction of the Tenant Fitout, and Tenant shall be responsible for complying with Legal Requirements enacted after the Term Commencement Date with respect to the Tenant Fitout. Tenant shall furnish all data and information to governmental authorities, with a copy to Landlord, as required in accordance with Legal Requirements as they relate to Tenant's use or occupancy of the Premises or the Building. If Tenant receives notice of any violation of Legal Requirements applicable to the Premises or the Building, it shall give prompt notice thereof to Landlord. Nothing contained in this Section 19.1 shall be construed to expand the uses permitted hereunder beyond the Permitted Uses. Landlord shall comply with any Legal Requirements and with any direction of any public office or officer relating to the maintenance or operation of the Building as a combination laboratory, research and development and office building, and the costs so incurred by Landlord shall be included in Operating Costs in accordance with the provisions of Section 5.2.

31

**19.2 Required Permits.** Tenant shall, at Tenant's sole cost and expense, use diligent good faith efforts to apply for, seek and obtain all necessary state and local licenses, permits and approvals needed for the operation of Tenant's business and/or Tenant's Additional Rooftop Equipment (collectively, the "**Required Permits**"), as soon as reasonably possible. Tenant shall thereafter maintain all Required Permits. Tenant, at Tenant's expense, shall at all times comply with the terms and conditions of each such Required Permit. Landlord shall cooperate with Tenant, at Tenant's sole cost and expense, in connection with its application for Required Permits.

**19.3 Traffic Management.** Tenant acknowledges that the Property may become subject to a traffic mitigation and/or management plan required by the Town of Lexington. Tenant agrees not to violate the terms of any such traffic mitigation and/or management plan. The costs incurred by Landlord in connection with any such traffic mitigation and/or management plan shall be included in Operating Costs.

## 20. DEFAULT

**20.1 Events of Default.** The occurrence of any one or more of the following events shall constitute an "**Event of Default**" hereunder by Tenant:

- (a) If Tenant fails to make any payment of Rent or any other payment required hereunder, as and when due, and such failure shall continue for a period of five (5) business days after notice thereof to Tenant; provided, however, an Event of Default shall occur hereunder without any obligation of Landlord to give any notice if (i) Tenant fails to make any payment within five (5) business days after the due date therefor, and (ii) Landlord has given Tenant written notice under this Section 20.1(a) on more than three (3) occasions during the twelve (12) month interval preceding such failure by Tenant;
- (b) intentionally omitted;
- (c) If Tenant shall fail to execute and deliver to Landlord an estoppel certificate pursuant to Section 16 above or a subordination and attornment agreement pursuant to Section 22 below, within the timeframes set forth therein;
- (d) If Tenant shall fail to maintain any insurance required hereunder;
- (e) If Tenant shall fail to restore the Security Deposit to its required original or reduced amount or deliver a replacement Letter of Credit as required under Section 7 above and such failure continues for five (5) business days after written notice thereof to Tenant;
- (f) If Tenant causes or suffers any release of Hazardous Materials in or near the Property in excess of Reportable Quantities or Reportable Concentrations (as such terms are defined in Environmental Laws);
- (g) If Tenant shall make a Transfer in violation of the provisions of Section 13 above, or if any event shall occur or any contingency shall arise whereby this Lease, or the term and estate thereby created, would (by operation of law or otherwise) devolve upon or pass to any person, firm or corporation other than Tenant, except as expressly permitted under Section 13 hereof;
- (h) The failure by Tenant to observe or perform any of the covenants or provisions of this Lease to be observed or performed by Tenant, other than as specified above, and such failure continues for more than thirty (30) days after notice thereof from Landlord; provided, further, that if the nature of Tenant's default is such that more than thirty (30) days are reasonably required for its cure, then

32

Tenant shall not be deemed to be in default if Tenant shall commence such cure within said thirty (30) day period and thereafter diligently prosecute such cure to completion, which completion shall occur not later than ninety (90) days from the date of such notice from Landlord;

- (i) Tenant shall be involved in financial difficulties as evidenced by an admission in writing by Tenant of Tenant's inability to pay its debts generally as they become due, or by the making or offering to make a composition of its debts with its creditors;
- (j) Tenant shall make an assignment or trust mortgage, or other conveyance or transfer of like nature, of all or a substantial part of its property for the benefit of its creditors;
- (k) an attachment on mesne process, on execution or otherwise, or other legal process shall issue against Tenant or its property and a sale of any of its assets shall be held thereunder;
- (l) any judgment, attachment or the like in excess of \$100,000 shall be entered, recorded or filed against Tenant in any court, registry, etc. and Tenant shall fail to pay such judgment within thirty (30) days after the judgment shall have become final beyond appeal or to discharge or secure by surety bond such lien, attachment, etc. within thirty (30) days of such entry, recording or filing, as the case may be;
- (m) the leasehold hereby created shall be taken on execution or by other process of law and shall not be revested in Tenant within thirty (30) days thereafter;
- (n) a receiver, sequesterer, trustee or similar officer shall be appointed by a court of competent jurisdiction to take charge of all or any part of Tenant's Property and such appointment shall not be vacated within thirty (30) days; or
- (o) any proceeding shall be instituted by or against Tenant pursuant to any of the provisions of any Act of Congress or State law relating to bankruptcy, reorganizations, arrangements, compositions or other relief from creditors, and, in the case of any proceeding instituted against it, if Tenant shall fail to have such proceedings dismissed within thirty (30) days or if Tenant is adjudged bankrupt or insolvent as a result of any such proceeding.

Wherever "Tenant" is used in subsections (i), (j), (k), (l), (n) or (o) of this Section 20.1, it shall be deemed to include any parent entity of Tenant and any guarantor of any of Tenant's obligations under this Lease.

**20.2 Remedies.** Upon an Event of Default, Landlord may, by notice to Tenant, elect to terminate this Lease; and thereupon (and without prejudice to any remedies which might otherwise be available for arrears of Rent or preceding breach of covenant or agreement and without prejudice to Tenant's liability for damages as hereinafter stated), upon the giving of such notice, this Lease shall terminate as of the date specified therein as though that were the Expiration Date. Upon such termination, Landlord shall have the right to utilize the Security Deposit or draw down the entire Letter of Credit, as applicable, and apply the proceeds thereof to its damages hereunder. Without being taken or deemed to be guilty of any manner of trespass or conversion, and without being liable to indictment, prosecution or damages therefor, Landlord may, by lawful process, enter into and upon the Premises (or any part thereof in the name of the whole); repossess the same, as of its former estate; and expel Tenant and those claiming under Tenant. The words "re-entry" and "re-enter" as used in this Lease are not restricted to their technical legal meanings,

33

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**20.3 Damages - Termination.**

(a) Upon the termination of this Lease under the provisions of this Section 20, Tenant shall pay to Landlord Rent up to the time of such termination, shall continue to be liable for any preceding breach of covenant, and in addition, shall pay to Landlord as damages, at the election of Landlord, either:

(i) the amount (discounted to present value at the rate of five percent (5%) per annum) by which, at the time of the termination of this Lease (or at any time thereafter if Landlord shall have initially elected damages under Section 20.3(a)(ii) below), (x) the aggregate of Rent projected over the period commencing with such termination and ending on the Expiration Date, exceeds (y) the aggregate projected rental value of the Premises for such period, taking into account a reasonable time period during which the Premises shall be unoccupied, plus all Reletting Costs (hereinafter defined); or

(ii) amounts equal to Rent which would have been payable by Tenant had this Lease not been so terminated, payable upon the due dates therefor specified herein following such termination and until the Expiration Date, *provided, however*, if Landlord shall re-let the Premises during such period, that Landlord shall credit Tenant with the net rents received by Landlord from such re-letting, such net rents to be determined by first deducting from the gross rents as and when received by Landlord from such re-letting the expenses incurred or paid by Landlord in terminating this Lease, as well as the expenses of re-letting, including altering and preparing the Premises for new tenants, brokers' commissions, and all other similar and dissimilar expenses properly chargeable against the Premises and the rental therefrom (collectively, "**Reletting Costs**"), it being understood that any such re-letting may be for a period equal to or shorter longer than the remaining Term; and *provided, further*, that (x) in no event shall Tenant be entitled to receive any excess of such net rents over the sums payable by Tenant to Landlord hereunder and (y) in no event shall Tenant be entitled in any suit for the collection of damages pursuant to this Section 20.3(a)(ii) to a credit in respect of any net rents from a re-letting except to the extent that such net rents are actually received by Landlord prior to the commencement of such suit. If the Premises or any part thereof should be re-let in combination with other space, then proper apportionment on a square foot area basis shall be made of the rent received from such re-letting and of the expenses of re-letting.

(b) In calculating the amount due under Section 20.3(a)(i), above, there shall be included, in addition to the Base Rent, all other considerations agreed to be paid or performed by Tenant, including without limitation Tenant's Share of Operating Costs and Taxes, on the assumption that all such amounts and considerations would have increased at the rate of five percent (5%) per annum for the balance of the full term hereby granted.

(c) Suit or suits for the recovery of such damages, or any installments thereof, may be brought by Landlord from time to time at its election, and nothing contained herein shall be deemed to require Landlord to postpone suit until the date when the Term would have expired if it had not been terminated hereunder.

(d) Nothing herein contained shall be construed as limiting or precluding the recovery by Landlord against Tenant of any sums or damages to which, in addition to the damages particularly provided above, Landlord may lawfully be entitled by reason of any Event of Default hereunder.

(e) In lieu of any other damages or indemnity and in lieu of full recovery by Landlord of all sums payable under all the foregoing provisions of this Section 20.3, Landlord may, by written notice to Tenant, at any time after this Lease is terminated under any of the provisions herein contained or is otherwise terminated for breach of any obligation of Tenant and before such full recovery, elect to recover, and Tenant shall thereupon pay, as liquidated damages, an amount equal to the aggregate of (x) an amount equal to the lesser of (1) Rent accrued under this Lease in the twelve (12) months

34

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immediately prior to such termination, or (2) Rent payable during the remaining months of the Term if this Lease had not been terminated, plus (y) the amount of Rent accrued and unpaid at the time of termination, less (z) the amount of any recovery by Landlord under the foregoing provisions of this Section 20.3 up to the time of payment of such liquidated damages.

(f) Landlord shall use reasonable efforts to mitigate any damages hereunder following any termination of this Lease or any termination of Tenant's possession of the Premises. The obligation of Landlord to use reasonable efforts to mitigate damages shall not be construed to require Landlord to rent all or any portion of the Premises for a use which, or to a tenant who, would not qualify pursuant to Section 13, or to prioritize the renting of the Premises over other space which Landlord may have available in the Building or in other properties owned by Landlord or its affiliates.

**20.4 Landlord's Self-Help; Fees and Expenses.** If Tenant shall default in the performance of any covenant on Tenant's part to be performed in this Lease contained, including without limitation the obligation to maintain the Premises in the required condition pursuant to Section 10.1 above, Landlord may, upon reasonable advance notice, except that no notice shall be required in an emergency, immediately, or at any time thereafter, perform the same for the account of Tenant. Tenant shall pay to Landlord upon demand therefor any costs incurred by Landlord in connection therewith, together with interest at the Default Rate until paid in full. In addition, Tenant shall pay all of Landlord's costs and expenses, including without limitation reasonable attorneys' fees, incurred (i) in enforcing any obligation of Tenant under this Lease or (ii) as a result of Landlord or any of the Landlord Parties, without its fault, being made party to any litigation pending by or against any of the Tenant Parties.

**20.5 Waiver of Redemption, Statutory Notice and Grace Periods.** Tenant does hereby waive and surrender all rights and privileges which it might have under or by reason of any present or future Legal Requirements to redeem the Premises or to have a continuance of this Lease for the Term hereby demised after being dispossessed or ejected therefrom by process of law or under the terms of this Lease or after the termination of this Lease as herein provided. Except to the extent prohibited by Legal Requirements, any statutory notice and grace periods provided to Tenant by law are hereby expressly waived by Tenant.

**20.6 Landlord's Remedies Not Exclusive.** The specified remedies to which Landlord may resort hereunder are cumulative and are not intended to be exclusive of any remedies or means of redress to which Landlord may at any time be lawfully entitled, and Landlord may invoke any remedy (including the remedy of specific performance) allowed at law or in equity as if specific remedies were not herein provided for.

**20.7 No Waiver.** The failure of either party to seek redress for violation, or to insist upon the strict performance, of any covenant or condition of this Lease, or any of the Rules and Regulations promulgated hereunder, shall not prevent a subsequent act, which would have originally constituted a violation, from having all the force and effect of an original violation. The receipt by Landlord of Rent with knowledge of the breach of any covenant of this Lease shall not be deemed a waiver of such breach. The failure of Landlord to enforce any of such Rules and Regulations against Tenant and/or any other tenant in the Building shall not be deemed a waiver of any such Rules and Regulations. No provisions of this Lease shall be deemed to have been waived by either party unless such waiver be in writing signed by such party. No payment by Tenant or receipt by Landlord of a lesser amount than the Rent herein stipulated shall be deemed to be other than on account of the stipulated Rent, nor shall any endorsement or statement on any check or any letter accompanying any check or payment as Rent be deemed an accord and satisfaction, and Landlord may accept such check or payment without prejudice to Landlord's right to recover the balance of such Rent or pursue any other remedy in this Lease provided.

**20.8 Restrictions on Tenant's Rights.** During the continuation of any Event of Default, (a)

35

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Landlord shall not be obligated to provide Tenant with any notice pursuant to Section 2.4 above; and (b) Tenant shall not have the right to make, nor to request Landlord's consent or approval with respect to, any Alterations or Transfers.

**20.9 Landlord Default.** Notwithstanding anything to the contrary contained in the Lease, Landlord shall in no event be in default in the performance of any of Landlord's obligations under this Lease unless Landlord shall have failed to perform such obligations within thirty (30) days (or such additional time as is reasonably required to correct any such default, provided Landlord commences cure within 30 days) after notice by Tenant to Landlord properly specifying wherein Landlord has failed to perform any such obligation. Except as expressly set forth in this Lease, Tenant shall not have the right to terminate or cancel this Lease or to withhold rent or to set-off or deduct any claim or damages against rent as a result of any default by Landlord or breach by Landlord of its covenants or any warranties or promises hereunder, except in the case of a wrongful eviction of Tenant from the Premises (constructive or actual) by Landlord, unless same continues after notice to Landlord thereof and a opportunity for Landlord to cure the same as set forth above. In addition, Tenant shall not assert any right to deduct the cost of repairs or any monetary claim against Landlord from rent thereafter due and payable under this Lease.

## 21. SURRENDER; ABANDONED PROPERTY; HOLD-OVER

### 21.1 Surrender

(a) Upon the expiration or earlier termination of the Term, Tenant shall (i) peaceably quit and surrender to Landlord the Movable Benches in good order, repair and condition excepting only ordinary wear and tear and damage by fire or other insured Casualty, (ii) peaceably quit and surrender to Landlord the Premises (including without limitation all fixed lab benches, fume hoods, electric, plumbing, heating and sprinkling systems, fixtures and outlets, vaults, paneling, molding, shelving, radiator enclosures, cork, rubber, linoleum and composition floors, ventilating, silencing, air conditioning and cooling equipment therein) broom clean, in good order, repair and condition excepting only ordinary wear and tear and damage by fire or other insured Casualty; (iii) remove all of Tenant's Property, all autoclaves and cage washers and, to the extent specified by Landlord in accordance with Section 11, Alterations made by Tenant; and (iv) repair any damages to the Premises or the Building caused by the installation or removal of Tenant's Property and/or such Alterations. Tenant's obligations under this Section 21.1(a) shall survive the expiration or earlier termination of this Lease.

(b) At least sixty (60) days prior to the expiration of the Term (or, if applicable, within five (5) business days after any earlier termination of this Lease), Tenant shall deliver to Landlord a narrative description of the actions proposed (or required by any Legal Requirements, including without limitation any requirements of the Massachusetts Department of Public Health and/or other governmental bodies with respect to any radioactive materials) to be taken by Tenant in order to render the Premises (including any Alterations permitted or required by Landlord to remain therein) free of Hazardous Materials and otherwise released for unrestricted use and occupancy (the "**Surrender Plan**"). The Surrender Plan (i) shall be accompanied by a current list of (A) all Required Permits held by or on behalf of any Tenant Party with respect to Hazardous Materials in, on, under, at or about the Premises, and (B) Tenant's Hazardous Materials, and (ii) shall be subject to the review and approval of Landlord's environmental consultant. In connection with review and approval of the Surrender Plan, upon request of Landlord, Tenant shall deliver to Landlord or its consultant such additional non-proprietary information concerning the use of and operations within the Premises as Landlord shall request. Landlord shall use commercially reasonable efforts to provide comments on or approval of the Surrender Plan within seven (7) business days after receipt of the entire Surrender Plan, which approval shall not be unreasonably withheld. In the event that Tenant has not received a response from the Landlord with respect to the Surrender Plan within ten (10) business days after request therefor, then the Surrender Plan shall be

36

deemed to be accepted by Landlord. On or before the expiration of the Term (or within thirty (30) days after any earlier termination of this Lease, during which period Tenant's use and occupancy of the Premises shall be governed by Section 21.3 below), Tenant shall deliver to Landlord a certification from an industrial hygienist reasonably acceptable to Landlord certifying that the Premises do not contain any Hazardous Materials and evidence that the approved Surrender Plan shall have been satisfactorily completed by a contractor acceptable to Landlord, 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 expiration of the Term (or, if applicable, the date which is thirty (30) days after any earlier termination of this Lease), free of Hazardous Materials and otherwise available for unrestricted use and occupancy. Landlord shall have the unrestricted right to deliver the Surrender Plan and any report by Landlord's environmental consultant with respect to the surrender of the Premises to third parties. Such third parties and the Landlord Parties shall be entitled to rely on the Surrender Report. 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 the use of Hazardous Materials by any of the Tenant Parties in, on, at, under or about the Premises, Landlord shall have the right to take any such actions as Landlord may deem reasonable or appropriate to assure that the Premises and the Property are surrendered in the condition required hereunder, the cost of which actions shall be reimbursed by Tenant as Additional Rent upon demand. Tenant's obligations under this Section 20.1(b) shall survive the expiration or earlier termination of the Term.

(c) No act or thing done by Landlord during the Term shall be deemed an acceptance of a surrender of the Premises, and no agreement to accept such surrender shall be valid, unless in writing signed by Landlord. Unless otherwise agreed by the parties in writing, no employee of Landlord or of Landlord's agents shall have any power to accept the keys of the Premises prior to the expiration or earlier termination of this Lease. The delivery of keys to any employee of Landlord or of Landlord's agents shall not operate as a termination of this Lease or a surrender of the Premises.

(d) Notwithstanding anything to the contrary contained herein, Tenant shall, at its sole cost and expense, remove from the Premises, prior to the end of the Term, any item installed by or for Tenant and which, pursuant to Legal Requirements, must be removed therefrom before the Premises may be used by a subsequent tenant.

**21.2 Abandoned Property.** After the expiration or earlier termination hereof, if Tenant fails to remove any property from the Building or the Premises which Tenant is obligated by the terms of this Lease to remove within five (5) business days after written notice from Landlord, such property (the "**Abandoned Property**") shall be conclusively deemed to have been abandoned, and may either be retained by Landlord as its property or sold or otherwise disposed of in such manner as Landlord may see fit. If any item of Abandoned Property shall be sold, Tenant hereby agrees that Landlord may receive and retain the proceeds of such sale and apply the same, at its option, to the expenses of the sale, the cost of moving and storage, any damages to which Landlord may be entitled under Section 20 hereof or pursuant to law, and to any arrears of Rent.

**21.3 Holdover.** If any of the Tenant Parties holds over after the end of the Term, Tenant shall be deemed a tenant-at-sufferance subject to the provisions of this Lease; provided that whether or not Landlord has previously accepted payments of Rent from Tenant, (i) Tenant shall pay Base Rent at 150% of the highest rate of Base Rent payable during the Term, (ii) Tenant shall continue to pay to Landlord all additional rent, and (iii) Tenant shall be liable for all damages, including without limitation consequential damages, incurred by Landlord as a result of such holding over. Tenant hereby acknowledging that Landlord may need the Premises after the end of the Term for other tenants and that the damages which Landlord may suffer as the result of Tenant's holding over cannot be determined as of the Execution

37

Date. Nothing contained herein shall grant Tenant the right to holdover after the expiration or earlier termination of the Term.

## 22. MORTGAGEE RIGHTS

**22.1 Subordination.** Tenant's rights and interests under this Lease shall be (i) subject and subordinate to any ground lease, overleases, mortgage, deed of trust, or similar instrument covering the Premises, the Building and/or the Land and to all advances, modifications, renewals, replacements, and extensions thereof (each of the foregoing, a "**Mortgage**"), or (ii) if any Mortgagee elects, prior to the lien of any present or future Mortgage. Tenant further shall attorn to and recognize any successor landlord, whether through foreclosure or otherwise, as if the successor landlord were the originally named landlord. Notwithstanding anything to the contrary in this Section 22 contained, the herein provided subordination and attornment shall be effective only if the Mortgagee agrees, by a duly executed commercially reasonable instrument in recordable form ("**Non-disturbance Agreement**") that, so long as Tenant shall not be in default of the obligations on its part to be kept and performed under the terms of this Lease beyond any applicable notice and cure periods, this Lease will not be affected and Tenant's possession and rights hereunder will not be disturbed by any default in, termination, and/or foreclosure of, such Mortgage. Within twenty (20) days of request therefor, Tenant agrees to execute, acknowledge and deliver such a Non-disturbance Agreement.

**22.2 Notices.** Tenant shall give each Mortgagee for which Tenant has received contact information the same notices given to Landlord concurrently with the notice to Landlord, and each Mortgagee shall have a reasonable opportunity thereafter to cure a Landlord default, and Mortgagee's curing of any of Landlord's default shall be treated as performance by Landlord.

**22.3 Mortgagee Consent.** Tenant acknowledges that, where applicable, any consent or approval hereafter given by Landlord may be subject to the further consent or approval of a Mortgagee; and the failure or refusal of such Mortgagee to give such consent or approval shall, notwithstanding anything to the contrary in this Lease contained, constitute reasonable justification for Landlord's withholding its consent or approval.

**22.4 Mortgagee Liability.** Tenant acknowledges and agrees that if any Mortgage shall be foreclosed, (a) the liability of the Mortgagee and its successors and assigns shall exist only so long as such Mortgagee or purchaser is the owner of the Premises, and such liability shall not continue or survive after further transfer of ownership; and (b) such Mortgagee and its successors

or assigns shall not be (i) liable for any act or omission of any prior lessor under this Lease; (ii) liable for the performance of Landlord's covenants pursuant to the provisions of this Lease which arise and accrue prior to such entity succeeding to the interest of Landlord under this Lease or acquiring such right to possession; (iii) subject to any offsets or defense which Tenant may have at any time against Landlord; (iv) bound by any base rent or other sum which Tenant may have paid previously for more than one (1) month other than payments on account of estimated Operating Costs and Taxes; or (v) liable for the performance of any covenant of Landlord under this Lease which is capable of performance only by the original Landlord.

**23. QUIET ENJOYMENT.** Landlord covenants that so long as there is no Event of Default, Tenant shall peaceably and quietly hold, occupy and enjoy the Premises during the Term from and against the claims of all persons lawfully claiming by, through or under Landlord subject, nevertheless, to the covenants, agreements, terms, provisions and conditions of this Lease, any matters of record of which Tenant has knowledge and to any Mortgage to which this Lease is subject and subordinate, as hereinabove set forth.

**24. NOTICES.** Any notice, consent, request, bill, demand or statement hereunder (each, a "**Notice**")

38

by either party to the other party shall be in writing and shall be deemed to have been duly given when either delivered by hand or by nationally recognized overnight courier (in either case with evidence of delivery or refusal thereof) addressed as follows:

If to Landlord: King 101 Hartwell LLC  
c/o King Street Properties  
255 Bear Hill Road  
Waltham, MA 02451  
Attention: Stephen D. Lynch

With a copy to: Goulston & Storrs, P.C.  
400 Atlantic Avenue  
Boston, MA 02110  
Attention: Colleen P. Hussey, Esquire

if to Tenant: T2 Biosystems, Inc.  
101 Hartwell Avenue  
Lexington, MA 02421  
Attention: Chief Executive Officer

Notwithstanding the foregoing, any notice from Landlord to Tenant regarding ordinary business operations (e.g., exercise of a right of access to the Premises, maintenance activities, invoices, etc.) may also be given by written notice delivered by facsimile to any person at the Premises whom Landlord reasonably believes is authorized to receive such notice on behalf of Tenant without copies as specified above. Either party may at any time change the address or specify an additional address for such Notices by delivering or mailing, as aforesaid, to the other party a notice stating the change and setting forth the changed or additional address, provided such changed or additional address is within the United States. Notices shall be effective upon the date of receipt or refusal thereof.

## **25. MISCELLANEOUS**

**25.1 Separability.** If any provision of this Lease or portion of such provision or the application thereof to any person or circumstance is for any reason held invalid or unenforceable, the remainder of this Lease (or the remainder of such provision) and the application thereof to other persons or circumstances shall not be affected thereby.

**25.2 Captions.** The captions are inserted only as a matter of convenience and for reference, and in no way define, limit or describe the scope of this Lease nor the intent of any provisions thereof. Unless the context otherwise requires, the term "hereof" shall refer to this Lease and not to any specific provision, section or paragraph hereof.

**25.3 Broker.** Tenant and Landlord each warrants and represents that it has dealt with no broker in connection with the consummation of this Lease other than FHO Partners ("**Broker**"). Tenant and Landlord each agrees to defend, indemnify and save the other harmless from and against any Claims arising in breach of the representation and warranty set forth in the immediately preceding sentence. Landlord shall be solely responsible for the payment of any brokerage commissions to Broker.

**25.4 Entire Agreement.** This Lease, Lease Summary Sheet and Exhibits 1-8 attached hereto and incorporated herein contain the entire and only agreement between the parties and any and all statements and representations, written and oral, including previous correspondence and agreements between the parties hereto, are merged herein. Each party acknowledges that all representations and statements upon which it relied in executing this Lease are contained herein and that such party in no way

39

relied upon any other statements or representations, written or oral. This Lease may not be modified orally or in any manner other than by written agreement signed by the parties hereto.

**25.5 Governing Law.** This Lease is made pursuant to, and shall be governed by, and construed in accordance with, the laws of the Commonwealth of Massachusetts and any applicable local municipal rules, regulations, by-laws, ordinances and the like.

**25.6 Representation of Authority.** By his or her execution hereof, each of the signatories on behalf of the respective parties hereby warrants and represents to the other that he or she is duly authorized to execute this Lease on behalf of such party. Upon Landlord's request, Tenant shall provide Landlord with evidence that any requisite resolution, corporate authority and any other necessary consents have been duly adopted and obtained.

**25.7 Expenses Incurred by Landlord Upon Tenant Requests.** Tenant shall, upon demand, reimburse Landlord for all reasonable expenses, including, without limitation, legal fees, incurred by Landlord in connection with all requests by Tenant for consents, approvals or execution of collateral documentation related to this Lease, including, without limitation, costs incurred by Landlord in connection with any reduction in the face amount of the Letter of Credit pursuant to Section 7.1(b) above and costs incurred by Landlord in connection with the review and approval of Tenant's plans and specifications in connection with proposed Alterations to be made by Tenant to the Premises or in connection with requests by Tenant for Landlord's consent to make a Transfer. Such costs shall be deemed to be additional rent under this Lease.

**25.8 Survival.** Without limiting any other obligation of either party which may survive the expiration or prior termination of the Term, (a) all obligations to indemnify, defend, or hold harmless, as set forth in Section 17 of this Lease shall survive the expiration or prior termination of the Term for a period of five (5) years after the last day of the Term, and (b) all other obligations to indemnify, defend, or hold harmless, as set forth in this Lease shall survive the expiration or prior termination of the Term for a period of three (3) years.

**25.9 Limitation of Liability.** Tenant shall neither assert nor seek to enforce any claim against Landlord or any of the Landlord Parties, or the assets of any of the Landlord Parties, for breach of this Lease or otherwise, other than against Landlord's interest in the Property and in the uncollected rents, issues and profits thereof, and Tenant agrees to look solely to such interest for the satisfaction of any liability of Landlord under this Lease. This Section 25.9 shall not limit any right that Tenant might otherwise have to obtain injunctive relief against Landlord. **Landlord and Tenant specifically agree that in no event shall any officer, director, trustee, employee or representative of Landlord, Tenant or any of the other Landlord Parties or Tenant Parties ever be personally liable for any obligation under this Lease, nor shall Landlord or any of the other Landlord Parties be liable for consequential or incidental damages or for lost profits whatsoever in connection with this Lease. Landlord and Tenant specifically agree that, subject to Section 21 above, neither Tenant nor any of the other Tenant Parties shall be liable for consequential or incidental damages or for lost profits whatsoever in connection with this Lease.**

**25.10 Binding Effect.** The covenants, agreements, terms, provisions and conditions of this Lease shall bind and benefit the successors and assigns of the parties hereto with the same effect as if mentioned in each instance where a party hereto is named or referred to, except that no violation of the provisions of Section 13 hereof shall operate to vest any rights in any successor or assignee of Tenant.

**25.11 Landlord Obligations upon Transfer.** Upon any sale, transfer or other disposition of the Building, Landlord shall be entirely freed and relieved from the performance and observance thereafter of all covenants and obligations hereunder on the part of Landlord to be performed and

40

observed, it being understood and agreed in such event (and it shall be deemed and construed as a covenant running with the land) that the person succeeding to Landlord's ownership of said reversionary interest shall thereupon and thereafter assume, and perform and observe, any and all of such covenants and obligations of Landlord, except as otherwise agreed in writing.

**25.12 No Grant of Interest.** Tenant shall not grant any interest whatsoever in any fixtures within the Premises or any item paid in whole or in part by Landlord.

**25.13. Use of Names.** Neither Tenant nor Landlord shall use the name of the other party or affiliate of the other party in any publicity, promotion, trailer, press release, advertising, printed or display materials without such party's prior written consent.

**25.14 Confidentiality.**

(a) From time to time Landlord has delivered and may deliver to Tenant certain information about the Property, including without limitation environmental reports and other title, zoning, geotechnical, permitting, environmental and operational materials relating to the Property (such information, whether furnished before or after the date hereof, whether oral or written, and regardless of the manner in which it is furnished, is collectively hereinafter referred to as "**Landlord's Proprietary Information**"). Landlord's Proprietary Information does not include, however, information which (a) is or becomes generally available to the public other than as a result of a disclosure by Tenant or Tenant's Engaged Persons, as defined below; (b) was available to Tenant on a non-confidential basis prior to its disclosure by Landlord; or (c) becomes available to Tenant on a non-confidential basis from a person other than Landlord who is not otherwise bound by a confidentiality agreement with Landlord, or is otherwise not under an obligation to Landlord not to transmit the information to Tenant.

(b) Tenant hereby covenants and agrees (a) to keep all Landlord's Proprietary Information strictly confidential; (b) not to disclose or reveal any Landlord's Proprietary Information to any person other than those persons who are actively and directly engaged by Tenant in connection with the Lease of the Property (such persons are hereinafter referred to as "**Tenant's Engaged Persons**"); (c) to cause Tenant's Engaged Persons to observe the terms of this Section 25.14; and (d) not to use any Landlord's Proprietary Information for any purpose other than in connection with this Lease. Tenant will be responsible for any breach of the terms of this Section 25.14 by it and/or its employees, agents, representatives or any other of Tenant's Engaged Persons.

(c) In the event that Tenant is requested pursuant to, or required by, any Legal Requirements to disclose any Landlord's Proprietary Information or any other information concerning the Property, Tenant agrees that it will provide Landlord with prompt notice of such request or requirement in order to enable Landlord to seek an appropriate protective order or other remedy, to resist or narrow the scope of such request or legal process, or to waive compliance, in whole or in part, with the terms of this Section 25.14. In any such event Tenant will use best efforts to ensure that all Landlord's Proprietary Information and other information that is so disclosed will be accorded confidential treatment.

(d) From time to time Tenant has delivered and may deliver to Landlord certain information about Tenant's business operations, including without limitation financial information (such information, whether furnished before or after the date hereof, whether oral or written, and regardless of the manner in which it is furnished, is collectively hereinafter referred to as "**Tenant's Proprietary Information**"). Tenant's Proprietary Information does not include, however, information which (a) is or becomes generally available to the public other than as a result of a disclosure by Landlord or Landlord's Engaged Persons, as defined below; (b) was available to Landlord on a non-confidential basis prior to its disclosure by Tenant; or (c) becomes available to Landlord on a non-confidential basis from a person

41

other than Tenant who is not otherwise bound by a confidentiality agreement with Tenant, or is otherwise not under an obligation to Tenant not to transmit the information to Landlord.

(e) Landlord hereby covenants and agrees (a) to keep all Tenant's Proprietary Information strictly confidential; (b) not to disclose or reveal any Tenant's Proprietary Information to any person other than its attorneys, accountants, consultants and those persons who are actively and directly engaged in connection with the ownership, management, financing of, or investment in, the Property (such persons are hereinafter referred to as "**Landlord's Engaged Persons**"); (c) to cause Landlord's Engaged Persons to observe the terms of this Section 25.14; and (d) not to use any Tenant's Proprietary Information for any purpose other than in connection with this Lease. Landlord will be responsible for any breach of the terms of this Section 25.14 by it and/or its employees, agents, representatives or any other of Landlord's Engaged Persons.

(f) In the event that Landlord is requested pursuant to, or required by, any Legal Requirements to disclose any Tenant's Proprietary Information, Landlord agrees that it will provide Tenant with prompt notice of such request or requirement in order to enable Tenant to seek an appropriate protective order or other remedy, to resist or narrow the scope of such request or legal process, or to waive compliance, in whole or in part, with the terms of this Section 25.14. In any such event Landlord will use best efforts to ensure that all Tenant's Proprietary Information and other information that is so disclosed will be accorded confidential treatment.

(g) Each party agrees that, except as provided by law or unless compelled by an order of a court of competent jurisdiction, it shall keep the contents of this Lease confidential and shall not disclose such information to any third parties other than its Engaged Persons.

(h) Without prejudice to the rights and remedies otherwise available at law or in equity, each party agrees that the other shall be entitled to seek equitable relief by way of injunction or otherwise if such party or any of its agents, employees, representatives or any other Engaged Persons breach or threaten to breach any of the provisions of this Section 25.14.

(i) The provisions of this Section 25.14 shall survive the expiration or earlier termination of this Lease for three (3) years.

[SIGNATURES ON FOLLOWING PAGE]

42

IN WITNESS WHEREOF the parties hereto have executed this Lease as a sealed instrument as of the Execution Date.

**LANDLORD**

KING 101 HARTWELL LLC

By: King Berra LLC, its manager

By: King Street Properties Investments LLC, its manager

By: /s/ Stephen D. Lynch  
Stephen D. Lynch, manager

**TENANT**

T2 BIOSYSTEMS, INC.

By: /s/ John McDonough

Name: John McDonough

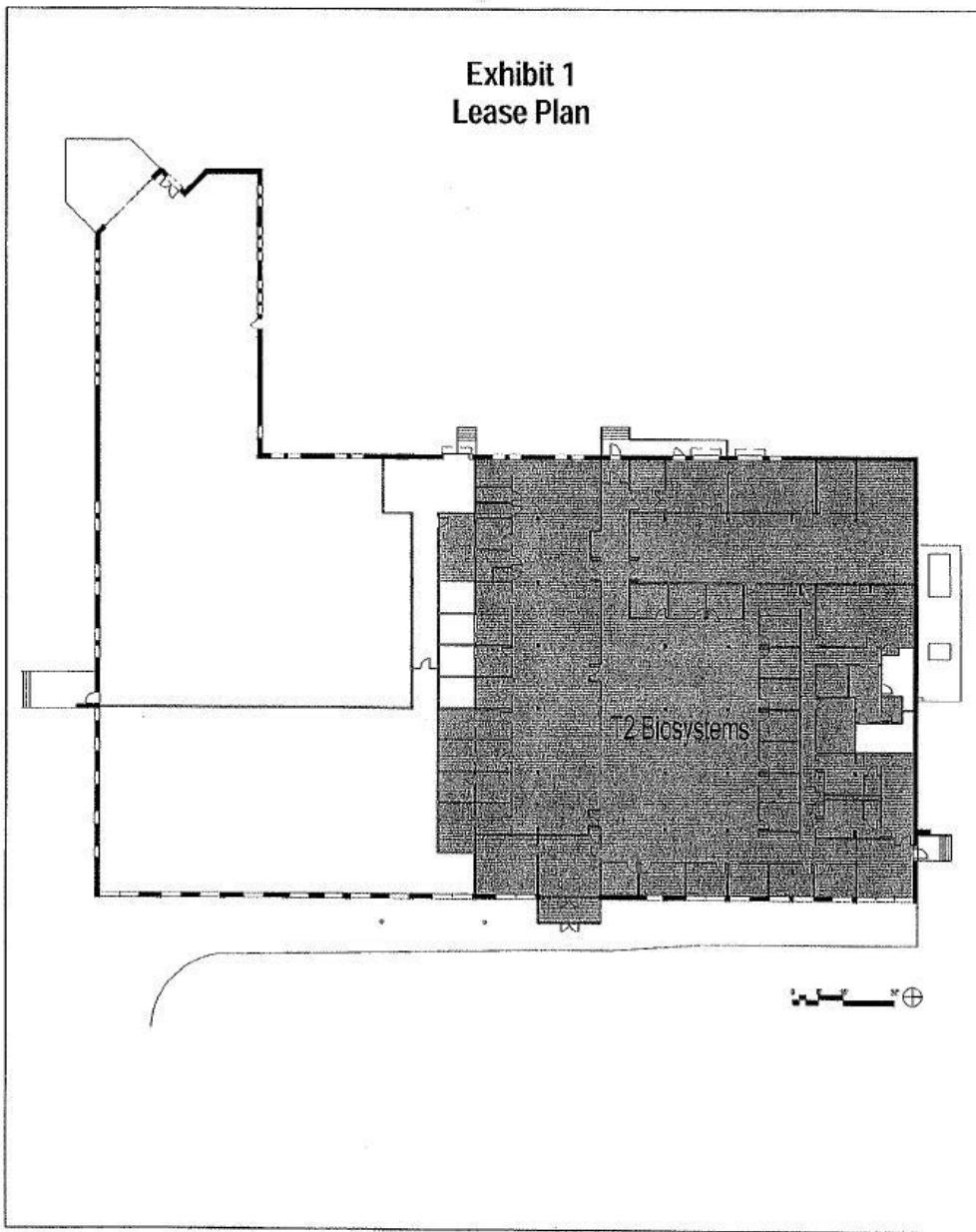
Title: CEO

43

EXHIBIT 1

LEASE PLAN

[see attached]



King 101 Hartwell Ave. LLC

101 Hartwell Ave.  
Lexington, MA 02421

EXHIBIT 2

LEGAL DESCRIPTION

A certain parcel of land situated in Lexington, County of Middlesex, Massachusetts, bounded and described as follows:

- Southeasterly by Hartwell Avenue, three hundred and ninety-five feet;
- Southwesterly by Lot 5 as shown on plan hereinafter mentioned, four hundred and seventy-five feet; and
- Northwesterly four hundred eighteen and 82/100 feet;
- Northeasterly four hundred and fifty feet, and
- Northeasterly again, thirty-nine and 27/100 feet, all by Lot 8 on said plan.

Said parcel is shown as Lot 7 on said plan, (Plan No. 31330C).

All of said boundaries are determined by the Court to be located as shown on a subdivision plan, as approved by the Court, filed in the Land Registration Office, a copy of which is filed in the Registry of Deeds for the South Registry District of Middlesex County in Registration Book 791, Page 36, with Certificate 132186.

Said premises are conveyed together with the rights in:

Grant of easement to Wilbur C. Nylander and Alfred P. Tropeano, Trustees et als. filed as Document No. 479842.

Grant of easement to Michael Campanelli et als. Trustees filed as Document No. 479843

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### EXHIBIT 3

#### LANDLORD'S WORK

Landlord's Work shall consist of the following items listed herein and as described on the Perkins and Will plan dated July 27, 2010 (the "Plan"). Reference is also made to the T2 Biosystems Equipment Schedule which is part of the Plan.

Landlord's architect to provide finish selections from the Landlord's building standard materials. All finishes subject to Tenant's final approval.

#### Office Area:

Landlord to construct partitions, walls, doors, glazing and painting per the Plan.

Landlord to provide locks to doors as specified on the Door Schedule.

Landlord to supply and install one divider/folding wall in large meeting room.

Landlord to provide open office space for 40 or more Tenant supplied office cubicles as shown on the Plan.

Landlord to provide batt insulation in the partitions of offices 2, 3, 4, 5, and 6.ord to provide a workout room and an allowance for up to \$10,000 for the purchase of exercise equipment to be located in the workout room.

Landlord to provide general bathroom facilities with water closets, urinals, and lavatories, one locker and one shower in each room as shown on the Plan.

Landlord to provide one kitchenette/lunch room with sink, laminate countertop and base and wall cabinets and electrical outlets to accommodate Tenant supplied appliances.

Landlord will furnish and install 28 oz. nylon textured loop carpet in the office areas and sealed concrete in the loading, shipping and receiving area as shown on the Plan.

Landlord will install 2' x 4' acoustical ceiling tile throughout the office portion of the Premises. The ceiling will be open to the underside of the deck in the loading, shipping and receiving areas.

The Landlord will install shades (Vinyl/Fiberglass Phifer Shear Weave) for windows.

#### Lab:

Landlord to construct a BSL2 lab with controlled access and 100% outside air with a minimum of six air changes per hour.

Landlord will provide the following one small glass wash area with Landlord-supplied under counter glass washer (Model Labconco Steam Scrubber Catalog # 440321)

Landlord to supply and install one new wall-mounted RO-DI point of use system, Barnstead Model 8611.

Landlord to disconnect tenant's existing RODI system at the 286 Cardinal Medeiros facility two days prior to move. . Landlord to re-install Tenant's existing RO-DI system in a mutually agreed-upon

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location within the lab at the Premises.

Landlord to furnish and install two 6' fume hoods. Hoods will be New England Lab's 72" Pro Series Fume Hood Catalog # 7421040 with epoxy work surface; 36" solvent base cabinet # 1412011; 36" acid base cabinet 314110111.

Landlord will install VCT flooring in the laboratory and support spaces as defined on the Plan

Landlord will furnish and install 2' x 4' acoustic ceiling in an aluminum grid system with vinyl faced tile

#### HVAC:

In the BSL2 lab area comprised of Tenant's Molecular Biology, Chemistry, Assay Development functions, the system will provide 100% outside air with a minimum of 6 air changes per hour. The lab area HVAC unit(s) will have the capacity to allow for two additional exhaust hoods to be added by the Tenant at its cost at a future date. BSL2 lab area will be balanced as negative to the office portion of the facility. Balance report will be provided upon completion of the project and will be included with the Project closeout materials provided to Tenant.

The balance of the Premises, including the Systems Development Room, ("Non-Lab Areas") will be designed to ASHRAE standards for office space.

Systems Development lab will be balanced as negative to the office portion of the facility. Balance report will be provided upon completion of the project and will be included with the Project closeout materials provided to Tenant.

The Non-Lab Areas will be serviced by roof top gas fired for heating and electric direct expansion units for cooling to provide for a minimum of 7 zones. Heating in the Non-Lab Areas will be provided by hot water reheat and baseboard units where needed. The boiler will be located in the Tenant's boiler room. The heating and cooling will be monitored by an automatic control system that allows for control by zone. The system will include an energy management system that has night setback capability.

The Landlord will also furnish and install in the IT Server room a wall mounted ductless split system providing up to 18,000 BTUs of cooling.

#### Plumbing:

Landlord is to provide a gravity-based tank PH System with a capacity of 16 GPM, the installation of which shall comply with applicable building and plumbing codes and MWRA regulations. Tenant is responsible for commissioning of the PH system and for obtaining all necessary permits, including the MWRA discharge permit. Landlord will cooperate to provide the necessary documentation for the Tenant's MWRA permit application. Landlord will allow inspections by the MWRA as part of the permitting process as it pertains to the application and inspection of the pH system prior to the Term Commencement Date.

Landlord to furnish and install 7 sinks (in addition to kitchen and bathroom sinks) connected to the pH system. Sinks to be set in sink cabinets New England Lab #1418022 — 36" painted steel sink base cabinets; with black epoxy resin countertops; with lipped epoxy resin sinks (24" X 16" X 15.5") New England Lab Catalog #D70C; and H/C Mixing Faucets, 8" gooseneck, deck mounted, vacuum breaker, catalog # L424-8VB. Color of sink cabinets to match color of tenant and landlord supplied moveable benches.



Landlord to furnish and install four (4) emergency showers/eyewash stations with tepid water in

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Molecular Biology, Chemistry/Assay Development, and Systems Development as shown on the Plan (3 stations in lab and 1 in Systems)

**Electrical:**

Landlord to provide electrical capacity of up to 20 watts/SF for the Premises. Landlord will furnish and install 2' x 4' parabolic light fixtures in the office areas to provide a minimum of 40 foot candles of light and acrylic lensed fixtures in lab areas to provide a minimum of 60 foot candles of light. Bulbs to be cool white in both office and lab areas. The Landlord will provide emergency lighting, an addressable fire alarm system and associated devices as required by applicable codes.

Landlord will furnish and install 1 quad outlet and 1 duplex outlet per office or room as shown on the Plan. Boardroom to contain 7 duplex outlets, 1 ceiling junction box and 1 floor junction box. Large meeting room to contain 7 Wall duplex outlets, 2 floor junction boxes and 1 ceiling junction box.

Landlord will furnish and install outlets or connections as shown on the Plan for Tenant furnished equipment in accordance with the plan and the tenant equipment list.

Landlord will hard wire the Tenant-supplied electric whips for tenant-supplied cubicles.

Landlord to furnish 20 KW of connected standby power via existing generator to equipment outlined on the tenant equipment list.

Landlord will provide alarm point wiring to equipment as outlined on the tenant equipment list. Landlord will install wires from the NAE to the equipment.

**Fire Protection:**

Landlord will provide a fire protection system as shown on the Plan in accordance with applicable codes.

**Lab Casework:**

Provided that Tenant has delivered its existing lab casework to the Premises in accordance with an agreed-upon schedule, Landlord will provide power and data cabling to locations specified on the electrical plan and further defined by the location of benches/casework shown on the equipment and furniture plan.

In addition, Landlord to furnish and install the following additional benches for Tenant's use during the term of the lease:

**Systems Lab**

Global Industries (Manufacturer)

4 — Wood Benches- 2.5' x 5.0' with shelving & single file drawer (no power Strip, no light)

4 - Wood Benches — 2.5 x 5.0' (no shelving, no file drawer, no power Strip, no light)

Symbiote Ergostat Model

4- Ergostat Gray Benches- with shelving, light, power strip & 3 drawer file

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4- Ergostat Gray benches — with Shelving, light, power strip, no file drawer

**Main Lab**

New England Lab

20- 72" Cambridge Series Laboratory Tables — Catalog # T100-7230-RR Half of these have task Lights; Drawers — half have 3 drawer cabinets and Half have 2 drawer cabinets; Electrical Strips; P Lam Shelves (2) and ends

7 – 48" Cambridge Series Laboratory Tables — Catalog # T100-4830-RR Half of these have task lights; No drawers; electrical strip; P-Lam Shelves (2)

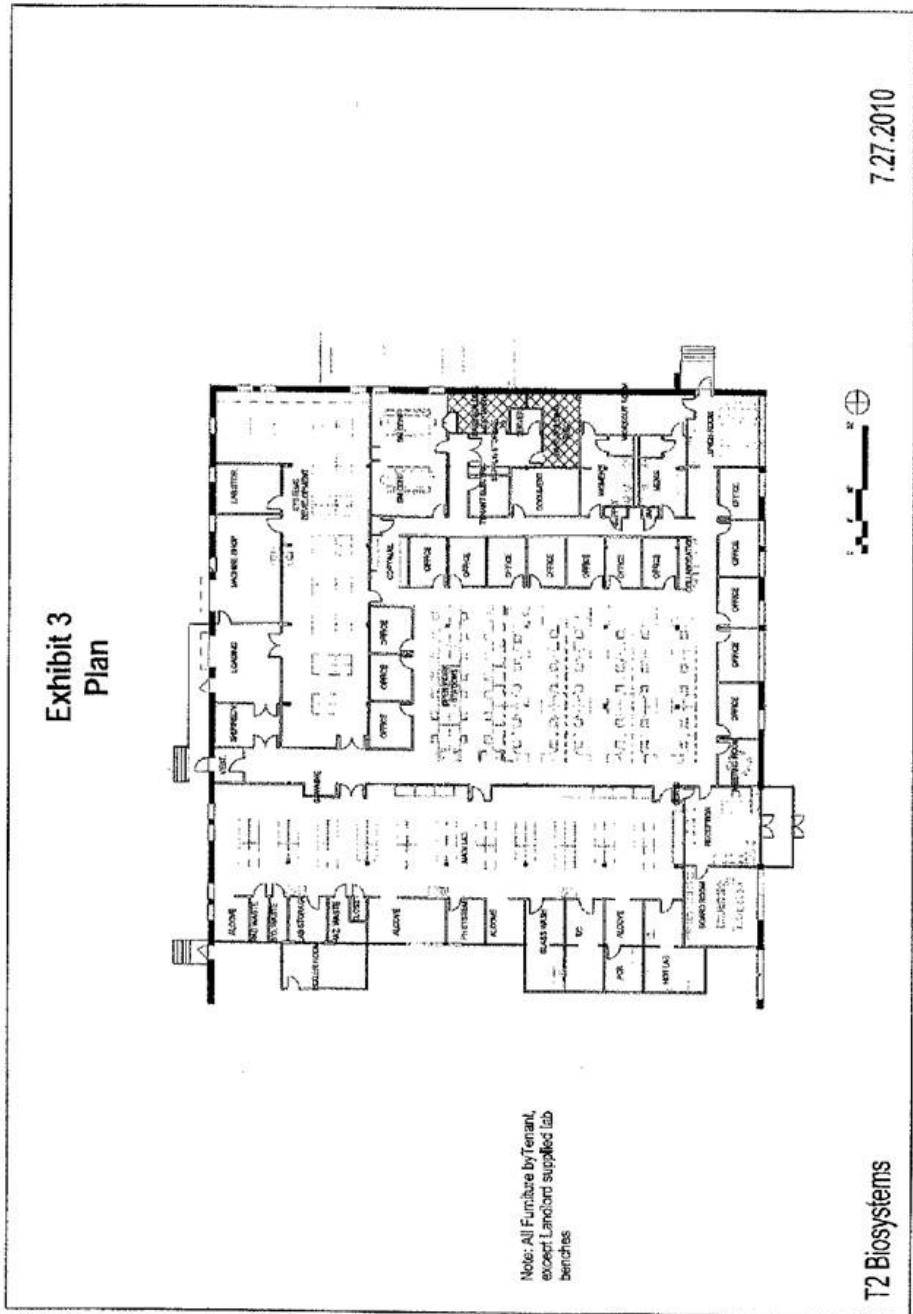
**Other Landlord Work:**

Landlord will refurbish the existing loading dock and its canopy which serves the Premises.

Landlord will furnish a bike rack at the exterior of the building for use by Tenant.

Landlord will furnish and install a card access system with 3 exterior locations as shown on the Plan. The card access system will have the capacity for Tenant to add readers at its cost on interior locations.

Landlord will designate 10 parking spaces as Tenant's visitor parking spaces and will be marked with T2 visitor signs.



7.27.2010  
101 Hartwell Ave.  
Lexington, MA 02421

T2 Biosystems  
King 101 Hartwell Ave. LLC  
PERKINS + WIL L

EXHIBIT 3A  
EXTERIOR WORK

At its sole cost and expense Landlord shall:

- Renovate the existing main entry to the Premises, located on the eastern (front) side of the Building. Said renovation will include the creation of a new glass exterior entry supported by structural steel.
- Conduct site work including drainage as required by the Town of Lexington and re-surface and re-stripe the existing parking lots and driveways serving the Property.
- Pursuant to the Plan, Landlord shall renovate the exterior loading facilities serving the Premises as follows. Currently, two (2) existing loading doors serve the Premises. Landlord shall refurbish the southern-most loading dock. It will be served by the existing overhead door which will remain in service. Landlord will refurbish the existing canopy over this loading dock.
- Landlord shall eliminate the dock leveler associated with the second loading door and make repairs as-needed to the surrounding concrete.
- Install one (1) new personnel door with overhead canopy along the western side of the Building per the Plan.
- Landlord to remove the existing landscaping adjacent to the eastern side of the Building and replace with new plantings and landscaping.
- Will install monument signage identifying the address of the Building and directional signage on the Property.
- Install a new fence enclosing the generator and transformer located along the northern side of the Building.
- Install exterior site lighting in the rear (western) portion of the parking lot.
- Create a common dumpster area with concrete pad and fenced enclosure in the western portion of the Property.

Room #/ Eq#	Description	QTY	Size (wxdxh) inches	Manufacturer	Volt.	Phase	IHZ	Amps	Currently on own circuit	Compressed Air	Vacuum (scfm)	Nitrogen N2	Alarm Point	Cart	Other	Comments
-------------	-------------	-----	---------------------	--------------	-------	-------	-----	------	--------------------------	----------------	---------------	-------------	-------------	------	-------	----------

Molecular																
1	Freezer -20	1	32x28.5x70.5	Fisher	115V	UA	60	5	N	n/a	n/a	n/a	n/a	N	STBYPW	n/a
2	Refrigerator 2-8c	1	30x33x79	Fisher	115V	UA	60	8.5	Y	n/a	n/a	n/a	n/a	N	STBYPW	n/a
3	Tetra2	1	18.5x24x8	BioRad	200-240Vac	UA	50-60	20 min	Y	n/a	n/a	n/a	n/a	N	Twist Lock	Fitted w/NEMA L6-20P Plug
4	Light Cycler	1	23x21.5x20.5	Roche	200-240Vac	UA	50-60	UA	Y	n/a	n/a	n/a	n/a	N	n/a	Fitted w/NEMA 6-20P Plug
5	Incubator	1	26.5x24.5x40	Forma	115V	1	50-60	3.6	N	n/a	n/a	n/a	n/a	N	n/a	n/a
6	4ft BSC	1	51x28x89	Forma	120	1	50-60	8	N	n/a	n/a	n/a	n/a	N	n/a	n/a
7	6ft BSC	1		TBD						n/a					n/a	n/a
8	6ft BSC	1		TBD						n/a					n/a	n/a

Hot Lab																
1	Scintillation Counter	1	53x33x49	Perkin	100-120v	UA	50-60	3	N	n/a	n/a	n/a	n/a	Y	n/a	n/a
2	Gel Dryer	1	19x20x2	Labconco	115V	UA	50-60	13	Y	n/a	n/a	n/a	n/a	N	n/a	Fitted w/NEMA 5-20P
3	Typhoon	1	35.5x31.5x4.5	GE	125V	UA	50-60	13	Y	n/a	n/a	n/a	n/a	N	n/a	n/a

Chemistry																
1	Freezer-80	1	42x37x78	Revco	115V	UA	60	16	Y	n/a	n/a	n/a	Y	N	STBYPW	Fitted w/NEMA 5-20P Plug
2	Freezer -20	1	28.5x34.5x79	Revco	115V	UA	60	13.5	Y	n/a	n/a	n/a	n/a	N	STBYPW	n/a
3	Refrigerator 2-8c	1	32x31x70.5	Fisher	115V	UA	60	5	N	n/a	n/a	n/a	n/a	N	STBYPW	n/a
4	Autoclave	1	23x28x18	Tatnauer	230V	2	50-60	7.8	Y	n/a	n/a	n/a	n/a	N	n/a	Fitted w/NEMA 6-15P
5	Centerfuge	1	28x28x12.5	Beckman	120V	UA	60	12	Y	n/a	n/a	n/a	n/a	N	n/a	Lid opens up to 32"
6	Oven	1	24x23.5x39.5	Thermo	120V	UA	60	11	Y	n/a	n/a	n/a	n/a	N	n/a	n/a
7	Ice Machine	1	24x24x38	Scottsman	100-120v	UA	50-60	UA	N	n/a	n/a	n/a	n/a	N	n/a	Requires Water Connection
8	Easy Pure II	1	12x19x18	Barnstead	100-240V	1	50-60	UA	N	n/a	n/a	n/a	n/a	N	n/a	Requires RO Connection

Assay Development																	
1	Refrigerator 2-8c	1	32x29x65.5	Kenmore	115V	UA	60	5	N	n/a	n/a	n/a	n/a	n	STBYPW	n/a	
2	Freezer -80	1	53x36x79	SoLow	208V	1	60	20	Y	n/a	n/a	n/a	n/a	Y	n	STBYPW	Fitted w/NEMA 6-20P Plug
3	Tecan	1	57x33x70	Tecan	100-120	UA	50-60	UA	N	n/a	n/a	n/a	n/a	n	n/a	n/a	
4	Landlord supplied water system	1		TBD						n/a						n/a	
5	High Throughput	1	48x50x83	Epson	208V	UA	60	5	Y	n/a	n/a	n/a	n/a	n	Twist Lock	Fitted w/NEMA L6-20P Plug	

Systems Lab																
1	High Throughput	1	48x50x83	Epson	208V	UA	60	5	Y	n/a	n/a	n/a	n/a	n	Twist Lock	Fitted w/NEMA L6-20P Plug
2	Humidity Chamber	1	37x52x73	Test Equity	230V	1	60	30	Y	n/a	n/a	n/a	n/a	n	Twist Lock	Fitted w/NEMA L6-30P Plug

Machine Shop																
1	CNC	1	49x38x74	Syl	115V	UA	UA	UA	Y	n/a	n/a	n/a	n/a	n	n/a	n/a
2	Lathe	1	78x24x50	Rockwell	UA	UA	UA	20	Y	n/a	n/a	n/a	n/a	n	Twist Lock	Fitted w/NEMA L5-20P
3	Ban Saw	1	24x18x66	Enco	220	1	60	15	Y	n/a	n/a	n/a	n/a	n	n/a	Fitted w/NEMA 6-15P
4	Mill	1	38x30x78	Rockwell	115V	UA	UA	9.5	Y	n/a	n/a	n/a	n/a	n	n/a	n/a

Server Room																
1	Server Rack	1	25x40x79	UA	UA	UA	UA	20	Y	n/a	n/a	n/a	n/a	n	STBYPW	Fitted w/NEMA L5-20P

Kitchen																
1	Coffee Machine	1	10x14x13	Kurig	120V	UA	60	11.6	Y	n/a	n/a	n/a	n/a	n	n/a	n/a
2	Microwave	1	22.5x17x14	GE	120 VAC	UA	80	8.3	Y	n/a	n/a	n/a	n/a	n	n/a	n/a
3	Toaster Oven	1	15x11x10	Classic	No Info	UA	UA	UA	UA	n/a	n/a	n/a	n/a	n	n/a	n/a
4	Refrigerator	1	31x32x65.5	Kenmore	115V	UA	60	4.5	N	n/a	n/a	n/a	n/a	n	n/a	n/a
5	Water Bubblers	1	12x12x40	Spectrum	115V	1	60	6	N	n/a	n/a	n/a	n/a	n	n/a	n/a

Exhaust Fans for Fume hoods on stand by power if possible  
 \*\* UA=Unavailable

EXHIBIT 4

SITE PLAN

[see attached]



KELLY ENGINEERING GROUP, INC.  
 CIVIL ENGINEERING CONSULTANTS  
 9 CAMPANELLO DRIVE, BRAintree, MA 02164  
 PHONE: 781 845 4333 FAX: 781 845 0028

**EXHIBIT 4  
 SITE PLAN**

SCALE: 1" = 80'  
 DATE: 07/28/10  
 2010-034-M100

EXHIBIT 5

FORM OF LETTER OF CREDIT

BENEFICIARY:

<>  
 [LANDLORD]

ACCOMTEE/APPLICANT:

<>  
 [TENANT]

LADIES AND GENTLEMEN:

ISSUANCE DATE:

IRREVOCABLE STANDBY  
 LETTER OF CREDIT NO.

MAXIMUM/AGGREGATE  
 CREDIT AMOUNT:  
 USD: \$

We hereby establish our irrevocable letter of credit in your favor for account of the applicant up to an aggregate amount not to exceed \_\_\_\_\_ and \_\_\_\_\_ /100 US Dollars (\$ \_\_\_\_\_ ) available by your draft(s) drawn on ourselves at sight bearing the clause "Drawn under Irrevocable Standby Letter of Credit Number \_\_\_\_\_" and indicating the amount to be drawn down and whether payment should be made by wire transfer (including wiring instructions) or by certified check (including mailing address) accompanied by the original of this Letter of Credit and all amendments, if any. The original Letter of Credit and all amendments, if any, shall be returned to you unless fully utilized.

Unless otherwise stated, all correspondence, documents and sight drafts are to be sent via facsimile to ( ) - \_\_\_\_\_ with originals to follow by hand delivery with receipted delivery, nationally recognized overnight courier with receipted delivery or certified mail, return receipt requested to our counters at \_\_\_\_\_ <address>. The date of presentment of any draw shall be the date copies of the Letter of Credit and sight draft are faxed by Beneficiary to <bank>.

You shall have the right to make partial draws against this Letter of Credit, from time to time.

You shall be entitled to assign your interest in this Irrevocable Standby Letter of Credit from time to time to your lender(s) and/or your successors in interest without our approval and without charge. In the event of an assignment, we reserve the right to require reasonable evidence of such assignment as a condition to any draw hereunder.

This Letter of Credit shall expire at our office on \_\_\_\_\_, 20\_\_\_\_ (the "Stated Expiration Date"). It is a condition of this Letter of Credit that the Stated Expiration Date shall be deemed automatically extended without amendment for successive one (1) year periods from such Stated Expiration Date, unless at least sixty (60) days prior to such Stated Expiration Date (or any anniversary

1

thereof) we shall send a written notice to you, with a copy to Goulston & Storrs, 400 Atlantic Avenue, Boston, MA 02110, Attention: Colleen P. Hussey and to the Accountee/Applicant, by hand delivery, nationally recognized overnight courier with receipted delivery or by certified mail (return receipt requested) that we elect not to consider this Letter of Credit extended for any such additional one (1) year period. In the event that this Letter of Credit is not extended for an additional period as provided above, you may draw the entire amount available hereunder.

If at any time prior to presentation of documents for payment hereunder, we receive a notarized certificate signed by one who purports to be a duly authorized representative on your behalf to execute and deliver such certificate, stating that this Letter of Credit has been lost, stolen, damaged or destroyed, we will mail you a "Certified True Copy" of this Letter of Credit, which shall be treated by us as an original.

In order to cancel this Letter of Credit prior to expiration, you must return this original Letter of Credit and any amendments hereto to our counters with a statement signed by you stating that the Letter of Credit is no longer required and is being returned to the issuing bank for cancellation.

We hereby agree with the drawers, endorsers and bonafide holders that the drafts drawn under and in accordance with the terms and condition of this Letter of Credit shall be duly honored upon presentation.

2

#### EXHIBIT 6

##### TENANT'S HAZARDOUS MATERIALS

[to be provided prior to the Term Commencement Date]

1

#### EXHIBIT 6A

##### LIST OF ENVIRONMENTAL REPORTS

1. Asbestos and Regulated Materials Survey Report dated May 20, 2010 and prepared by Boston Environmental.
2. Phase I Environmental Site Assessment dated June 17, 2010 and prepared by Boston Environmental.
3. 16 page excerpt provided to Landlord by the prior owner of the Property and dated February 13, 1998.

1

#### EXHIBIT 7

##### RULES AND REGULATIONS

###### A. General

1. Tenant and its employees shall not in any way obstruct the sidewalks, halls, stairways, or exterior vestibules of the Building, and shall use the same only as a means of passage to and from their respective offices. At no time shall Tenants permit its employees, contractors, or other representatives to loiter in Common Areas or elsewhere in and about the Property.
2. Corridor doors, when not in use, shall be kept closed.
3. Areas used in common by tenants shall be subject to such regulations as are posted therein.
4. Any Tenant or vendor sponsored activity or event in the Common Area must be approved and scheduled through Landlord's representative, which approval shall not be unreasonably withheld.
5. No animals, except Seeing Eye dogs, shall be brought into or kept in, on or about the Premises or Common Areas.
6. Alcoholic beverages (without Landlord's prior written consent), illegal drugs or other illegal controlled substances are not permitted in the Common Areas, nor will any person under the influence of the same be permitted in the Common Areas. Landlord reserves the right to exclude or expel from the Building any persons who, in the judgment of the Landlord, is under the influence of alcohol or drugs, or shall do any act in violation of the rules and regulations of the Building.
7. No firearms or other weapons are permitted in the Common Areas.
8. No fighting or "horseplay" will be tolerated at any time in the Common Areas.
9. Tenant shall not cause any unnecessary janitorial labor or services in the Common Areas by reason of Tenant's carelessness or indifference in the preservation of good order and cleanliness.
10. Smoking and discarding of smoking materials by Tenant and/or any Tenant Party is permitted only in exterior locations designated by Landlord. Tenant will instruct and notify its employees and visitors of such policy.
11. Bicycles and other vehicles are not permitted inside or on the walkways outside the Building, except in those areas specifically designated by Landlord for such purposes
12. Tenant shall not operate or permit to be operated on the Premises any coin or token operated vending machine or similar device (including, without limitation, telephones, lockers, toilets, scales, amusement devices and machines for sale of beverages food, candy, cigarettes or other goods), except for those vending machines or similar devices which are for the sole and exclusive use of tenant's employees.
13. Canvassing, soliciting, and peddling in or about the Building is prohibited. Tenant, its employees, agents and contractors shall cooperate with said policy, and Tenant shall cooperate and use best efforts to prevent the same by Tenant's invitees.
14. Fire protection and prevention practices implemented by the Landlord from time to time in the Common Areas, including participation in fire drills, must be observed by Tenant at all times.
15. Except as provided for in the Lease, no signs, advertisements or notices shall be painted or affixed on or to any windows, doors or other parts of the Building that are visible from the exterior of the Building unless approved in writing by the Landlord.
16. The restroom fixtures shall be used only for the purpose for which they were constructed and no rubbish, ashes, or other substances of any kind shall be thrown into them. Tenant will bear the expense of any damage resulting from misuse.
17. Tenant will not interfere with or obstruct any perimeter heating, air conditioning or ventilating units.
18. Tenant shall utilize Waltham Pest Control Service or such other pest control service approved by Landlord (which approval shall not be unreasonably withheld) to control pests in the Premises.

1

Except as included in Landlord's Services, tenants shall bear the cost and expense of such pest control services.

19. Tenant shall not install, operate or maintain in the Premises or in any other area of the Building, any electrical equipment which does not bear the U/L (Underwriters Laboratories) seal of approval (other than in connection with the development of electronic equipment which is part of the ordinary operations of the Tenant), or which would overload the electrical system or any part thereof beyond its capacity for proper, efficient and safe operation as determined by Landlord, taking into consideration the overall electrical system and the present and future requirements of the Building.

20. Tenants shall not perform improvements or alterations within the Building or their Premises, if the work has the potential of disturbing the fireproofing which has been applied on the surfaces of structural steel members, without the prior written consent of Landlord.
21. Tenant shall, at its sole cost and expense keep any garbage, trash, rubbish and refuse in vermin- proof containers within the interior of the Premises until removed.
22. Lab operators who travel outside lab space must abide by the one glove rule and remove lab coats where predetermined.
23. Chemical lists and MSDS sheets must be readily available at a centralized location of which Landlord has been provided prior notice. In the event of an emergency, first responders will require this information in order to properly evaluate the situation.
24. Tenant shall provide Landlord, in writing, the names and contact information of two (2) representatives authorized by Tenant to request Landlord services, either billable or non-billable and to act as a liaison for matters related to the Premises.

#### B. Access & Security

1. Landlord reserves the right to close and keep locked all entrance and exit doors of the Building during the hours Landlord may deem advisable for the adequate protection of the Property. Use of the Building and the leased premises before 8 AM or after 6 PM, or any time during Saturdays, Sundays or legal holidays shall be allowed only to persons with a key/card key to the Building or guests accompanied by such persons. Any persons found in the Building after hours without such keys/card keys are subject to the surveillance of building staff.
2. Tenant shall not place any additional lock or locks on any exterior door in the Premises or Building or on any door in the Building core within the Premises, including doors providing access to the telephone and electric closets and the slop sink, without Landlord's prior written consent. A reasonable number of keys to the locks on the doors in the Premises shall be furnished by Landlord to Tenant at the cost of Tenant, and Tenant shall not have any duplicate keys made. All keys shall be returned to Landlord at the expiration or earlier termination of this Lease.
3. Landlord may from time to time adopt appropriate systems and procedures for the security or safety of the Building, its occupants, entry and use, or its contents, provided that Tenant shall have access to the Building 24 hours per day, 7 days a week. Tenant, Tenant's agents, employees, contractors, guests and invitees shall comply with Landlord's reasonable requirements relative thereto.
4. Tenant acknowledges that Property security problems may occur which may require the employment of extreme security measures in the day-to-day operation of the Common Areas. Accordingly, Tenant agrees to cooperate and cause its employees, contractors, and other representatives to cooperate fully with Landlord in the implementation of any reasonable security procedures concerning the Common Areas.
5. Tenant and its employees, agents, contractors, invitees and licensees are limited to the Premises and the Common Areas, Tenants and its employees, agents, contractors, invitees and licensees may not enter other areas of the Project (other than the Common Areas) except when accompanied by an escort from the Landlord.

2

#### C. Shipping/Receiving

1. Dock areas exterior to the Building shall not be used for storage or staging by Tenant.
2. In no case shall any truck or trailer be permitted to remain in a loading dock area for more than forty-eight (48) hours.
3. There shall not be used in any Common Area, either by Tenant or by delivery personnel or others, in the delivery or receipt of merchandise, any hand trucks, except those equipped with rubber tires and sole guards.
4. Lab operators carrying any lab related materials may only travel within the Premises. At no time should any lab materials travel in the Common Areas.
5. Any dry ice brought into the building must be delivered through the loading dock serving the Premises.
6. All nitrogen tanks must travel through the loading dock serving the Premises and should never be left unattended outside of the Premises.

3

### EXHIBIT 8

#### LANDLORD'S SERVICES

- Hot/cold water to restrooms
- Electricity for Common Areas
- Management services
- Grounds maintenance
- Emergency Power: Landlord's sole obligation for either providing emergency generators or providing emergency back-up power to Tenant shall be: (i) to provide an emergency generator for use of all tenants in the Building, including Tenant (the "**Back-up Generator**") with twenty (20) kilowatts of electricity allocated for Tenant's use (Tenant hereby acknowledging that the equipment to be connected to the Back-Up Generator as specified in Exhibit 3 collectively uses thirteen (13) kilowatts of electricity), and (ii) to contract with a third party to maintain the Back-up Generator as per the manufacturer's standard maintenance guidelines. In the event that Tenant's equipment connected to the Back-Up Generator uses more than twenty (20) kilowatts of electricity, Tenant shall, upon Landlord's demand, disconnect from the Back-Up Generator such equipment as may be necessary to reduce Tenant's use to equal or be less than twenty (20) kilowatts. Upon Tenant's request, Landlord shall provide Tenant with (a) copies of completed work orders which indicate that standard maintenance has been performed on the Back-up Generator, and (b) a yearly maintenance and refueling schedule. 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 Back-up Generator is maintaining the generator as per the manufacturer's standard guidelines or otherwise. During any period of replacement, repair or maintenance of the Back-up Generator when the Back-up Generator is not operational, including any delays thereto due to the inability to obtain parts or replacement equipment, Landlord shall provide written notice to Tenant within one (1) day after Landlord learns that the Back-up Generator is not operational, however Landlord shall have no obligation to provide Tenant with an alternative back-up generator or alternative sources of back-up power. Tenant expressly acknowledges and agrees that Landlord does not guaranty that the Back-up Generator will be operational at all times or that emergency power will be available to the Premises when needed. In no event shall Landlord be liable to Tenant or any other party for any damages of any type, whether actual or consequential, suffered by Tenant or any such other person in the event that any emergency generator or back-up power or any replacement thereof fails or does not provide sufficient power. Tenant shall pay Landlord for the cost of any electricity furnished to the Premises or any equipment exclusively serving the same within thirty (30) days after demand therefor.

1

## PROMISSORY NOTE

\$1,687,500.00

May 9, 2011

FOR VALUE RECEIVED, on the Maturity Date, as such term is defined in Section 1.1(c) below, **T2 BIOSYSTEMS, INC.**, a Delaware corporation with its chief executive office, mailing address, and principal place of business presently at 101 Hartwell Avenue, Lexington, Massachusetts 02421 ("**Borrower**"), promises to pay to the order of **MASSACHUSETTS DEVELOPMENT FINANCE AGENCY**, a body politic and corporate created by Chapter 289 of The Acts of 1998 and established under Massachusetts General Laws Chapter 23G as amended, ("**Lender**") at its principal offices at 160 Federal Street, Boston, Massachusetts 02110, or at such other place as the holder of this note may from time to time designate in writing, the principal sum of ONE MILLION SIX HUNDRED EIGHTY-SEVEN THOUSAND FIVE HUNDRED AND NO/100 DOLLARS (\$1,687,500.00), or such lesser amount advanced by Lender pursuant to Section 1.1 below (the "**Loan**"), or so much thereof then remaining unpaid, in lawful money of the United States with interest at the rate set forth below, until fully paid. Borrower further agrees to pay upon an Event of Default, as such term is defined below, all costs, including reasonable attorneys' fees reasonably incurred in the collection of Borrower's obligations and the defense, preservation, enforcement or protection of Lender's rights and remedies under this Note, or in the foreclosure of any mortgage or security interest now or hereafter securing the same or in any proceedings to otherwise enforce or protect upon an Event of Default Lender's rights and remedies under this Note or any security therefor. Interest on this Note shall be computed on the basis of a year of three hundred sixty (360) days and actual days elapsed. Capitalized terms not defined herein shall have the meaning given to them in the Security Agreement (defined below).

1.0. **Funding; Term; Interest Rate; Payments.**1.1. **Funding; Term.**

(a) During the Interest Only Period (defined below), Borrower may request from the Lender up to six (6) advances aggregating not more than the entire stated principal amount of this Note for the purchase of laboratory equipment, tooling and beta units for system development and testing (collectively, the "**Equipment**") and for reimbursement of leasehold improvement costs (the "**Improvements**" and, together with the Equipment, collectively, the "**Collateral**"), as more fully described in the Security Agreement (the "**Security Agreement**") by and between Borrower and Lender of even date herewith, to be operated and maintained at the Borrower's existing facility in Lexington, Massachusetts (the "**Premises**").

(b) Provided no Event of Default has occurred and is continuing on the date of each request for an advance, and no event or circumstance exists on such date, which with the passage time, or notice, or both would result in an Event of Default, Lender shall advance the full requested amount within ten (10) business days of the date of such request. Borrower may request up to the total of advances provided in Section 1.1 (a) above, subject to availability of funds hereunder as a result of prior advances made pursuant to said Section, *provided that*, (i) prior to any advance of the Loan under this Section 1.1(b) with respect to Equipment, Borrower's request for such advance is

accompanied by (a) invoices evidencing the purchase of the Equipment for which the advance is sought, and (b) evidence that delivery of the same has been made to the Premises; and further provided that such advance does not exceed ninety percent (90%) of total invoice cost of capital equipment, tooling, prototype units, and furniture and fixtures, and eighty-five percent (85%) of total invoice cost of software; and (ii) prior to any advance of the Loan under this section 1.1(b) for Improvements, Borrower's request for such advance is accompanied by (x) invoices evidencing the purchase of the Improvements for which the advance is sought, and (y) prior to the first advance for Improvements, Borrower must deliver an AIA form of requisition signed by the Borrower and its architect and general contractor; and further provided that such advance does not exceed the greater of eight percent (8%) of costs or \$250,000. Advances will be permitted to reimburse Borrower for previous purchases of new Equipment beginning in July, 2010. Advances with respect to Remote Site Collateral (as defined in the Security Agreement) shall not exceed \$600,000.

(c) The term of this Note shall commence on the date hereof (the "**Effective Date**") and shall mature on May 9, 2018 (the "**Maturity Date**"). Borrower's obligation to make payments of principal and interest under Section 1.2 shall commence when Lender first advances funds to Borrower in accordance with Section 1.1 (the "**Initial Funding Date**").

1.2. **Payments of Principal and Interest.** Payments of interest only during the first thirty (30) months after the Effective Date (the "Interest Only Period"), at the rate provided in Section 1.3 below, shall be due and payable and shall commence on the first (1<sup>st</sup>) day of the calendar month next following the Initial Funding Date, and continue on the first (1<sup>st</sup>) day of each calendar month thereafter, the "**Payment Date**". Each such payment of accrued interest shall be paid in arrears. On the Payment Date next following the expiration of the Interest Only Period, the principal outstanding under this Note shall commence amortization with equal monthly payments of principal and interest (at the rate provided in Section 1.3 below), due on such Payment Date, and on each succeeding Payment Date over the remaining term of this Note such that the entire principal balance of this Note is paid in full by the Maturity Date. No further advances of principal shall be made hereunder after the expiration of the Interest Only Period.

1.3. **Interest Rate.** So long as no Event of Default has occurred and is continuing (but subject to applicable cure or grace periods), and subject to the terms hereof, the principal outstanding hereunder from time to time shall bear interest at a fixed annual rate of six and one-half (6.50%) percent (the "**Interest Rate**").

2.0. **Default Rate.** To the extent allowed by applicable law, after the occurrence of any Event of Default and during the continuation thereof (and after giving effect to any applicable grace or cure periods), after the Maturity Date, or after judgment has been rendered on this Note, all outstanding principal and unpaid interest shall bear, until paid, interest at a rate per annum equal to five (5%) percentage points greater than that which would otherwise be applicable, assessed retroactive to the date that the Event of Default first occurs (the "**Default Rate**").

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3.0. **Late Charge.** If a regularly scheduled payment is not paid within (10) days of its due date, Borrower will be charged five percent (5%) of the unpaid portion of the regularly scheduled payment or ten dollars (\$10.00), whichever is greater. If Lender demands payment of this Loan after the occurrence and during the continuation of an Event of Default (after giving effect to any applicable grace or cure periods), and Borrower does not pay the Loan within fifteen (15) days after Lender's demand, Borrower will be charged five percent (5%) of the unpaid principal amount plus accrued and unpaid interest.

4.0. **Expenses.** Borrower further promises to pay to Lender, promptly after receipt of an invoice therefor, and as an additional part of the unpaid principal, all costs, expenses and reasonable attorneys' fees reasonably incurred: (a) in the protection, modification, collection, defense or enforcement of all or part of this Note or any guaranty hereof; or (b) in the foreclosure or enforcement of any mortgage or security interest which may now or hereafter secure the debt hereunder; or (c) with respect to any action reasonably taken to protect, defend, modify or sustain the lien of any such mortgage or security interest; or (d) with respect to any litigation or controversy arising from or connected with this Note, or any mortgage, security agreement, or collateral which may now or hereafter secure this Note; or (e) with respect to any act during the continuance of an Event of Default to protect defend, modify, enforce or release any of its rights or remedies with regard to, or otherwise effect collection of, any collateral which may now or in the future secure this Note. or with regard to or against Borrower or any endorser, guarantor or surety of this Note. Borrower also promises to pay Lender on the date hereof all reasonable third party costs incurred in making this loan to Borrower including without limitation Lender's reasonable legal fees and costs, and filing fees.

5.0. **Optional Prepayment.** Borrower may elect to prepay the unpaid amount of this Note, or any part thereof, without penalty or premium; provided, however, that, any such prepayment shall first be applied to (i) any unpaid expenses required by Section 4.0 above, then to (ii) late fees, if any are due, then to (iii) Default Rate interest, if any is due, then to (iv) regularly accrued but unpaid interest pursuant to Section 1.3 above, and then finally to (v) the principal.

6.0. **Warrant.** As part of the consideration in making the Loan on favorable terms and conditions, Borrower shall issue to Lender on the date of this Note one (1) warrant entitling Lender to purchase an aggregate of 30,000 shares of Series C preferred stock in the Borrower with an exercise price of \$3.66 per share, subject to any adjustments as set forth in the warrant (the "**Warrant**"), in the form attached hereto as **Exhibit A**. The Warrant shall expire on the earlier of (i) the tenth (10th) anniversary of this Note, or (ii) the closing date of the Borrower's Initial Public Offering, provided that Borrower shall give Lender at least sixty (60) days' prior written notice of an approximate closing date and at least one (1) week's prior written notice of the actual closing date.

7.0. **Default.** The happening of any of the following events or conditions shall constitute an "**Event of Default**" under this Note:

7.1. Failure to make any payment of principal or interest on any sum due under this Note within ten (10) days after the same shall be due and payable.

7.2. Failure by Borrower to observe or perform any covenant contained herein or a default or the occurrence of an event of default in any agreement between Borrower and Lender in connection herewith, including the Security Agreement, beyond the applicable grace or cure period (or, if no such grace or cure period is specified, then beyond thirty (30) days following the occurrence of any such default or event of default).

7.3. A material default by Borrower under that certain Lease by and between Borrower and King 101 Hartwell LLC (the "**Landlord**") dated [insert date], as amended, with respect to the Premises, including all addenda and riders thereto (the "**Lease**"), continuing beyond the applicable cure or grace period. A "material" default as provided in this Section 7.3 shall mean any default of any covenant, term or condition of the Lease that, upon failure of the Borrower to cure such default, gives the Landlord the right to terminate the Lease in accordance with the terms and conditions thereof.

7.4. Failure of the Borrower to, at least six (6) months prior to the scheduled expiration or termination of the Lease, either (i) amend the Lease for one or more successive extensions, the duration of each such extension to be in the Borrower's sole discretion, such that the Lease as amended terminates no earlier than that date which is six (6) full months after the Maturity Date or (ii) enter into a new lease for the same or similar purpose as the Lease at another location within Massachusetts, which lease, as amended by any subsequent extensions, the duration of which extensions are to be in the Borrower's sole discretion, terminates no earlier than that date which is six (6) full months after the Maturity Date.

7.5. Any amendment to the Lease made without the Lender's prior written consent (not to be unreasonably withheld, conditioned or delayed) which has the effect of (i) accelerating its scheduled expiration date, or (ii) defining the Premises as set forth in the Lease in a manner materially adverse to the collateral securing this Note, (iii) increasing the rent due, (iv) making the rent payment terms less favorable to the Borrower, (v) materially increasing any repair obligation, (vi) imposing any escalators as additional rent or (vii) amending any other financial provision of the Lease in a manner materially adverse to the Borrower.

7.6. As of the Effective Date, any representation or warranty made by Borrower herein or in any agreement executed in connection herewith, including the Security Agreement or any statement, certificate or other data furnished by Borrower in connection herewith or with such agreements, proves to be incorrect in any material respect when made.

7.7. A judgment or judgments for the payment of money shall be rendered against Borrower in an amount, individually or in the aggregate, of at least two hundred thousand dollars (\$200,000.00), and any such judgment shall remain unbonded or unsatisfied and in effect for any period of thirty (30) consecutive days without a stay of execution, and the Lender holds the reasonable belief that such unsatisfied judgment or unstayed execution is materially adverse to the condition (financial or otherwise) of the Borrower or the Lender's collateral for this Note.

7.8. Borrower shall: (a) apply for or consent to the appointment of a receiver, trustee or liquidator of all or a substantial part of any of its assets; (b) admit in writing its inability to pay its debts generally as they mature; (c) file or permit the filing of any petition, case arrangement, reorganization, or the like under any insolvency or bankruptcy law, or be adjudicated as a bankrupt, or make an assignment for the benefit of creditors or consent to any form or arrangement for the satisfaction, settlement or delay of debt or the appointment of a receiver for all or any part of its properties; or (d) any action shall be taken by Borrower that authorizes or effects any of the foregoing.

7.9. An order, judgment or decree shall be entered, or a case shall be commenced, against Borrower, without its application, approval or consent by any court of competent jurisdiction, approving a petition or permitting the commencement of a case seeking reorganization or liquidation of Borrower or appointing a receiver, trustee or liquidator of Borrower, or of all or a substantial part of the assets of Borrower, and Borrower, by any act, indicates its approval thereof, consent thereto, or acquiescence therein, or such order, judgment, decree or case shall continue unstayed and in effect for any period of sixty (60) consecutive days, or an order for relief in connection therewith shall be entered.

7.10. If Borrower shall dissolve or liquidate, or be dissolved or liquidated, or cease to legally exist, or merge or consolidate, or be merged or consolidated with or into any other corporation or entity, other than (i) a merger or reorganization involving only a change in the state of incorporation of the Borrower or (ii) the acquisition by the Borrower of another business where the Borrower survives as a going concern (in the case of an event listed in (i) and (ii) above, Borrower must provide Lender with written notice of such event within five (5) days prior to the effective date thereof).

7.11. If any other indebtedness or obligation shall be accelerated, or if there exists any event of default under any instrument, document or agreement governing, evidencing or securing such other indebtedness or obligation, in any event, in an amount, individually or in the aggregate, of at least two hundred thousand dollars (\$200,000.00); and any such amount remains unpaid or any such indebtedness or obligations remain accelerated or any such event of default remains uncured, in each case, for any period of thirty (30) consecutive days; and the Lender reasonably believes that such unpaid indebtedness or event of default is materially adverse to the condition (financial or otherwise) of the Borrower or the Lender's collateral for this Note.

7.12. If Borrower moves any operations financed with any portion of the Loan proceeds, from the Premises to another site outside the Commonwealth of Massachusetts, or for any reason ceases such financed operations at the Premises.

7.13. If Borrower fails to maintain at all times during the term a minimum balance of \$300,000.00 in cash and marketable securities.

7.14. If and when there is any public offering of the Borrower's securities, the Borrower fails to include in such offering all of the shares subject of the Warrant without the Lender's prior written consent.

7.15. A default by Borrower of any payment obligation or financial covenant under any loan documents entered into between the Borrower and Silicon Valley Bank (the "**Silicon Valley Financing**") or any other default which results in a notice of acceleration of such Silicon Valley Financing under any documents securing the obligation of Borrower in connection therewith.

7.16. A default by Borrower under a certain Negative Pledge Agreement by and between Borrower and Lender of even date herewith.

Upon and during the continuance of an Event of Default, the entire unpaid balance of said indebtedness, both principal and interest, and including any other sums which may become due under this Note, shall, upon written notice from the holder and at the holder's option, immediately become due and payable without presentment, further demand, protest, notice of protest, or other notice of dishonor of any kind, all of which are hereby expressly waived by Borrower; in addition, Lender shall have those remedies available to it under Section 8 of the Security Agreement.

8.0. **Maximum Permissible Interest Rate.** Borrower shall not be obligated to pay, and Lender shall not collect, interest at a rate higher than the maximum permitted by law or the maximum that will not subject Lender to any civil or criminal penalties. If, because of the acceleration of maturity, the payment of interest in advance or any other reason, Borrower is required, under the provisions hereof, pursuant to the provisions of any other agreements, instruments, documents, security agreements, mortgages, financing statements, and supplements thereto and relating to the Loan, or entered into between Borrower in favor of, or with, Lender, at any time, for any purpose, including without limitation a certain Security Agreement and Negative Pledge Agreement, both of even date herewith (the "**Loan Documents**") or otherwise, to pay interest at a rate in excess of such maximum rate, the rate of interest under such provisions shall immediately and automatically be reduced to such maximum rate and any payment made in excess of such maximum rate shall be applied to principal outstanding hereunder or, if received by applicable law, shall be returned to Borrower.

9.0. **Source of Loan; Limited Recourse.** Borrower hereby acknowledges that the Loan is being made in part by Lender from the Commonwealth of Massachusetts's Emerging Technology Fund, created pursuant to Section 27 of Chapter 23G of Massachusetts General Laws (the "**ETF**"), which is administered by Lender. In consideration of the Lender's agreement to make the Loan, to the extent that the Borrower ever has any off-sets, defenses or claims against the Lender or its subsidiaries, affiliates, any members of the ETF advisory committee, parents, officers, directors, employees, agents, predecessors, successors and assigns, both present and former (collectively, the "**Lender Affiliates**"), the Borrower and its partners, subsidiaries, affiliates, parents, officers, directors, employees, agents, heirs, successors, assigns, and executors (collectively, the "**Obligor Parties**"), agree that any recourse an Obligor Party may have against the Lender or the Lender Affiliates will be limited to the ETF for any action and actions, cause and causes of action, suits, debts, controversies, damages, judgments, executions, claims and demands whatsoever asserted or unasserted, in contract, tort, law or in equity which the Obligor Parties may have upon or against the Lender or the Lender Affiliates by reason of any matter, cause, causes



negligence; (b) any covenants, agreements, duties, or obligations set forth in the Loan Documents; (c) the actions or omissions of any of the Lender and/or the Lender Affiliates in connection with the initiation or continuing exercise of any right or remedy contained in the Loan Documents or at law or in equity; (d) lost profits; (e) loss of business opportunity; (f) increased financing costs; (g) increased legal or administrative fees; or (h) damages to business reputation, but excluding in each of the foregoing cases the gross negligence and willful misconduct of the Lender.

10.0. **Replacement Documents.** Upon receipt of an affidavit of an officer of Lender as to the loss, theft, destruction or mutilation of the Note or any other security document(s), together with an agreement reasonably satisfactory to the Borrower to indemnify the Borrower from any loss incurred by it in connection therewith, and, in the case of any such loss, theft, destruction or mutilation, upon surrender and cancellation of such Note or other document(s), Borrower will issue, in lieu thereof, a replacement Note or other document(s) in the same principal amount thereof and otherwise of like tenor.

11.0. **Commitment Letter.** The terms and conditions of that certain Commitment Letter executed by Lender and Borrower and dated February 25, 2011, to the extent not inconsistent herewith, are incorporated herein by reference.

12.0. **Consent To Jurisdiction.** Borrower hereby agrees that any state or local court of the Commonwealth of Massachusetts or any United States District Court for the District of Massachusetts or, at the option of Lender, any court within the Commonwealth of Massachusetts in which Lender shall initiate legal or equitable proceedings and which has subject matter jurisdiction over the matter in controversy, shall have exclusive jurisdiction to hear and determine any claims or disputes between Borrower and Lender pertaining directly or indirectly to this Note or to any matter arising in connection with this Note.

13.0. **Waivers.** Borrower agrees that no delay or failure on the part of the holder in exercising any power, privilege, remedy, option or right hereunder shall operate as a waiver thereof or of any other power, privilege, remedy or right; nor shall any single or partial exercise of any power, privilege, remedy, option or right hereunder preclude any other or future exercise thereof or the exercise of any other power, privilege, remedy, option or right. The rights and remedies expressed herein are cumulative, and may be enforced successively, alternately, or concurrently and are not exclusive of any rights or remedies which holder may or would otherwise have under the provisions of all applicable laws, and under the provisions of all agreements between Borrower and Lender.

Borrower hereby waives presentment, demand, notice, protest and all other demands and notices in connection with the delivery, acceptance, performance, default or enforcement of this Note. Borrower hereby assents to any extension or postponement of the time of payment or any other indulgence, to the addition or release of any party or person primarily or secondarily liable, and to the addition, release and/or substitution of all or any portion of any collateral now or hereafter securing this Note.

BORROWER AND LENDER MUTUALLY HEREBY KNOWINGLY, VOLUNTARILY AND INTENTIONALLY WAIVE THE RIGHT TO A TRIAL BY JURY IN RESPECT OF ANY CLAIM BASED HEREON, ARISING OUT OF, UNDER OR IN

CONNECTION WITH THIS NOTE OR ANY OTHER DOCUMENTS CONTEMPLATED TO BE EXECUTED IN CONNECTION HEREWITH OR ANY COURSE OF CONDUCT, COURSE OF DEALING, STATEMENTS (WHETHER ORAL OR WRITTEN) OR ACTIONS OF ANY PARTY. THIS WAIVER CONSTITUTES A MATERIAL INDUCEMENT FOR LENDER TO MAKE THE LOAN AND ACCEPT THIS NOTE.

[SIGNATURES APPEAR ON FOLLOWING PAGE]

This Note is executed as a sealed instrument and shall be governed by and construed in accordance with the laws of the Commonwealth of Massachusetts.

WITNESS:

BORROWER:

**T2 BIOSYSTEMS, INC.**

/s/ [ILLEGIBLE]

By: /s/ John McDonough  
Name: John McDonough  
Title: President and CEO  
Hereunto Duly Authorized

Signature Page to Promissory Note

**Exhibit A**

Form of Warrant

THIS WARRANT AND THE SECURITIES ISSUABLE UPON THE EXERCISE HEREOF HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED. THEY MAY NOT BE SOLD, OFFERED FOR SALE, PLEDGED, HYPOTHECATED, OR OTHERWISE TRANSFERRED EXCEPT PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR AN OPINION OF COUNSEL SATISFACTORY TO THE COMPANY THAT REGISTRATION IS NOT REQUIRED UNDER SUCH ACT OR UNLESS SOLD PURSUANT TO RULE 144 UNDER SUCH ACT.

No. C-1

WARRANT TO PURCHASE 30,000 SHARES OF  
SERIES C PREFERRED STOCK  
OF  
T2 BIOSYSTEMS, INC.

(Void after \_\_\_\_\_, 2021)

1. **Issuance of Warrant.** FOR VALUE RECEIVED, on and after the date of issuance of this Warrant, and subject to the terms and conditions herein set forth, the Holder (as defined below) is entitled to purchase from T2 Biosystems, Inc., a Delaware corporation (the "Company"), at any time before 5:00 p.m. Eastern time on the Termination Date (as defined below and subject to adjustment as described below), at a price per share equal to the Warrant Price (as defined below and subject to adjustment as described below), the Warrant Stock (as defined below and subject to adjustment as described below) upon exercise of this warrant (this "Warrant") pursuant to Section 6 hereof, or convert the Warrant into Warrant Stock pursuant to Section 7 hereof.

2. **Definitions.** As used in this Warrant, the following terms have the definitions ascribed to them below:

(a) **“Acceleration Event”** means (i) the closing of the sale, transfer or other disposition of all or substantially all of the Company’s assets or capital stock, (ii) the consummation of the merger or consolidation of the Company with or into another entity (except a merger or consolidation in which the holders of capital stock of the Company immediately prior to such merger or consolidation continue to hold at least 50% of the voting power of the capital stock of the Company or the surviving or acquiring entity or its parent entity), (iii) the closing of the transfer (whether by merger, consolidation or otherwise), in one transaction or a series of related transactions, to a person or group of affiliated persons (other than an underwriter of the Company’s securities), of the Company’s voting securities if, after such closing, such person or group of affiliated persons would hold 50% or more of the outstanding voting stock of the Company in a transaction structured as a business combination (or the surviving or acquiring entity or its parent entity), (iv) a liquidation, dissolution or

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winding up of the Company, (v) the closing of the Company’s first underwritten public offering of its securities pursuant to a registration statement under the Securities Act of 1933, as amended (the **“Securities Act”**), or (vi) the conversion of all of the shares of Series C Preferred Stock issued and outstanding (as of the time of the notice specified in Section 3(g) hereof into Common Stock); provided, however, that a transaction shall not constitute an Acceleration Event if its sole purpose is to change the state of the Company’s incorporation. Notwithstanding the prior sentence, the sale, transfer or other disposition of shares of capital stock of the Company in a financing transaction or for other capital raising purposes shall not be deemed an “Acceleration Event.”

(b) **“Business Day”** means any day other than a Saturday, Sunday or other day on which the national or state banks located in the Commonwealth of Massachusetts are authorized to be closed.

(c) **“Commencement Date”** means \_\_\_\_\_, 2011.

(d) **“Common Stock”** means the common stock, par value \$0.001 per share, of the Company.

(e) **“Promissory Note”** means the Promissory Note, dated as of \_\_\_\_\_, 2011, issued by the Company to Massachusetts Development Finance Agency. Capitalized terms not defined herein shall have the meaning set forth in the Promissory Note.

(f) **“Exercise Period”** means, subject to Section 3(g), the period commencing on the Commencement Date and ending at 5:00 p.m. Eastern time on the Termination Date; provided, however, the Exercise Period shall end and this Warrant shall no longer be exercisable and shall become null and void (except the right to receive the securities and property to which the Holder is entitled by virtue of exercising or converting this Warrant in connection with any Acceleration Event) upon consummation of an Acceleration Event. In the event the Company proposes to consummate an Acceleration Event, this Warrant shall automatically be deemed to be converted pursuant to Section 7 subject to the consummation of such Acceleration Event, and such conversion shall be deemed to have occurred immediately prior to the consummation of such Acceleration Event without any further action on behalf of Holder.

(g) **“Holder”** means the Massachusetts Development Finance Agency, or its assigns.

(h) **“Series C Preferred Stock”** means the Series C Preferred Stock, par value of \$.001 per share, of the Company.

(i) **“Termination Date”** means the earlier of (i) the tenth (10<sup>th</sup>) anniversary of the Promissory Note or (ii) the closing date of the Company’s Initial Public Offering, provided that the Company shall give the Holder at least sixty (60) days’ prior written notice of an approximate closing date and at least one (1) week’s prior written notice of the actual closing date.

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(j) **“Warrant Price”** means \$3.6608 per share.

(k) **“Warrant Stock”** means the shares of Series C Preferred Stock (or other securities) purchasable upon exercise of this Warrant or issuable upon conversion of this Warrant. The total number of shares issuable upon the exercise of this Warrant at any time shall be 30,000 shares, subject to adjustment as described in Section 3 hereof.

Notwithstanding the foregoing, this Warrant shall become fully vested immediately prior to the consummation of an Acceleration Event.

3. **Adjustments and Notices.** The Warrant Price and the number of shares of Warrant Stock shall be subject to adjustment from time to time in accordance with this Section 3.

(a) **Subdivisions, Stock Dividends or Combinations.** In case the Company shall at any time subdivide the outstanding shares of Series C Preferred Stock or shall issue shares of Series C Preferred Stock as a stock dividend on the Common Stock or Series C Preferred Stock, the Warrant Price in effect prior to such subdivision or the issuance of such dividend shall be proportionately decreased, and in case the Company shall at any time combine the outstanding shares of the Series C Preferred Stock, the Warrant Price in effect immediately prior to such combination shall be proportionately increased, in each case effective at the close of business on the date of such subdivision, dividend or combination, as the case may be. The provisions of this Section 3(a) shall similarly apply to successive subdivisions, stock dividends or combinations.

(b) **Reclassification, Exchange, Substitution, In-Kind Distribution.** Upon any reclassification, exchange, substitution or other event, other than an Acceleration Event, that results in a change of the number and/or class of the securities issuable upon exercise or conversion of this Warrant or upon the payment of a dividend in securities or property other than shares of Series C Preferred Stock, the 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 if this Warrant had been exercised or converted immediately before the record date for such reclassification, exchange, substitution, or other event, other than an Acceleration Event, or immediately prior to the record date for such dividend. The Company or its successor shall promptly issue to Holder a new warrant for such new securities or other property. The new warrant shall provide for adjustments which shall be substantially similar to the adjustments provided for in this Section 3 including, without limitation, adjustments to the Warrant Price and to the number of securities or property issuable upon exercise or conversion of the new warrant; provided, however, that the aggregate Warrant Price shall not be adjusted. The provisions of this Section 3(b) shall similarly apply to successive reclassifications, exchanges, substitutions, or other events and successive dividends.

(c) **Certificate of Adjustment.** In each case of an adjustment or readjustment of the Warrant Price, the Company, at its own expense, shall cause its chief financial officer (or comparable officer) to compute such adjustment or readjustment in accordance with the provisions hereof and prepare a certificate showing such adjustment or

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readjustment, and shall mail such certificate, by first class mail, postage prepaid, to the Holder. The certificate shall set forth such adjustment or readjustment, showing in detail the facts upon which such adjustment or readjustment is based. No adjustment of the Warrant Price shall be required to be made unless it would result in an increase or decrease of at least one cent, but any adjustments not made because of this sentence shall be carried forward and taken into account in any subsequent adjustment otherwise required hereunder.

(d) **Adjustment to Number of Shares of Warrant Stock.** In the event the Warrant Price is adjusted under any provision of this Section 3, the number of shares of Warrant Stock shall be simultaneously adjusted by multiplying the number of shares of Warrant Stock by a fraction, the numerator of which is the Warrant Price in effect immediately prior to such adjustment and the denominator of which is the Warrant Price in effect immediately after such adjustment.

(e) **No Impairment.** The Company shall not, by amendment of its filed 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 all of the provisions of this Section 3 and in taking all such action as may be necessary or appropriate to protect the Holder’s rights under this Section 3 against impairment.

(f) **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 the Holder an amount computed by multiplying the fractional interest by the fair market value of a full share.

(g) **Notice of Certain Events and Automatic Conversion/Exercise of the Warrant.** If, at any time while this Warrant is outstanding, the Company proposes to consummate an Acceleration Event, the Company shall give the Holder of this Warrant notice thereof at least five (5) Business Days before the proposed consummation date for such Acceleration Event, and upon the closing or consummation of such Acceleration Event, this Warrant shall automatically convert in accordance with Section 7(b). Notwithstanding the foregoing, the Company does not have to provide the Holder of this Warrant notice under this Section 3(g) if the purpose of such transaction is to change the state of the Company's incorporation or if the sale, transfer or other disposition of shares of capital stock of the Company is in a financing transaction or for other capital raising purposes, provided, however, that the Holder shall automatically have the right thereafter to receive, upon exercise of this Warrant, the same amount and kind of securities, cash or property as it would have been entitled to receive upon the occurrence of such transaction if it had been, immediately prior to such transaction, the holder of the number of Warrant Stock then issuable upon exercise in full of this Warrant.

4. **No Stockholder Rights.** This Warrant, by itself, as distinguished from any shares issued hereunder, shall not entitle its Holder to any of the rights of a stockholder of the Company or any right to vote for the election of directors or upon any matter submitted to

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stockholders at any meeting thereof, or to give or withhold consent to any corporate action (whether upon any recapitalization, issuance of stock, reclassification of stock, change of par value, or change of stock to no par value, consolidation, merger, conveyance, or otherwise) or to receive notice of meetings, or to receive dividends or subscription rights or otherwise until the Warrant shall have been exercised as provided herein.

5. **Reservation of Stock.** On and after the Commencement Date, the Company will reserve from its authorized and unissued Series C Preferred Stock a sufficient number of shares to provide for the issuance of Warrant Stock upon the exercise of this Warrant, and to provide for the issuance of Common Stock upon conversion of the Warrant Stock. Issuance of this Warrant shall constitute full authority to the Company's officers who are charged with the duty of executing stock certificates to execute and issue the necessary certificates for shares of Warrant Stock issuable upon the exercise or conversion of this Warrant, and Common Stock issuable upon conversion of the Warrant Stock. If at any time during the Exercise Period the number of authorized but unissued shares of Series C Preferred Stock shall not be sufficient to permit the exercise or conversion of this Warrant, the Company will take such corporation action as may, in the opinion of its counsel, be necessary to increase its authorized but unissued shares of Series C Preferred Stock to such number of shares as shall be sufficient for such purposes.

6. **Exercise of Warrant.** The Holder may exercise this Warrant or any portion hereof by surrendering this Warrant, together with the Notice of Exercise and Investment Representation Statement in the forms attached hereto as Attachments 1 and 2, respectively, executed and delivered to the principal office of the Company, specifying the portion of the Warrant to be exercised and accompanied by payment in full of the Warrant Price in cash or by check with respect to the shares of Warrant Stock being purchased. This Warrant shall be deemed to have been exercised immediately prior to the close of business on the date of its surrender for exercise as provided above, and the person entitled to receive the shares of Warrant Stock issuable upon such exercise shall be treated for all purposes as the holder of such shares of record as of the close of business on such date. As promptly as practicable after such date, the Company shall issue and deliver to the person or persons entitled to receive the same a certificate or certificates for the number of full shares of Warrant Stock issuable upon such exercise. If this Warrant shall be exercised for less than the total number of shares of Warrant Stock then issuable upon exercise, promptly after surrender of this Warrant upon such exercise, the Company shall execute and deliver a new warrant, dated as of the Commencement Date, evidencing the right of the Holder to the balance of the Warrant Stock purchasable hereunder upon the same terms and conditions set forth herein.

7. **Cashless Net Exercise.**

(a) **Optional Conversion.** In lieu of exercising this Warrant or any portion hereof, at any time the Holder hereof shall have the right to convert this Warrant or any portion hereof into Warrant Stock by executing and delivering to the Company at its principal office the Investment Representation Statement and Notice of Conversion in the forms attached hereto as Attachments 2 and 3, respectively, specifying the portion of the Warrant to be converted, and accompanied by this Warrant.

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(b) **Conversion Mechanics.** The number of shares of Warrant Stock to be issued to Holder upon such conversion shall be computed using the following formula:

$$X = \frac{Y(A - B)}{A}$$

Where: X = the number of shares of Series C Preferred Stock to be issued to the Holder for the portion of the Warrant being converted;

Y = the number of shares of Series C Preferred Stock issuable upon exercise of the Warrant in full or, if only a portion of the Warrant is being exercised, the portion of the Warrant being cancelled (at the date of such calculation);

A = the fair market value of one share of Warrant Stock, which means (a) the average of the closing prices of the Warrant Stock for the twenty (20) trading days immediately prior to the date the notice of conversion is received by the Company, as reported in the principal market for such securities or, if no such market exists, as determined in good faith by the Company's Board of Directors, or (b) if this Warrant is being converted in conjunction with a public offering of stock, the price to the public per share of the Common Stock in such offering multiplied by the number of shares of Common Stock into which each share of Series C Preferred Stock is then convertible; and

B = the Warrant Price.

Any portion of this Warrant that is converted shall be immediately canceled. This Warrant or any portion hereof shall be deemed to have been converted immediately prior to the close of business on the date of its surrender for conversion as provided above, and the person entitled to receive the shares of Warrant Stock issuable upon such conversion shall be treated for all purposes as the holder of such shares of record as of the close of business on such date. As promptly as practicable after such date, the Company shall issue and deliver to the person or persons entitled to receive the same a certificate or certificates for the number of full shares of Warrant Stock issuable upon such conversion. If the Warrant shall be converted for less than the total number of shares of Warrant Stock then issuable upon conversion, promptly after surrender of the Warrant upon such conversion, the Company will execute and deliver a new warrant, dated as of the Commencement Date, evidencing the right of the Holder to the balance of the Warrant Stock purchasable hereunder upon the same terms and conditions set forth herein.

8. **Transfer of Warrant.** This Warrant may be transferred or assigned by the Holder hereof in whole or in part, provided that the transferor provides, at the Company's request, an opinion of counsel satisfactory to the Company that such transfer does not require registration under the Securities Act and the securities law applicable with respect to any other

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applicable jurisdiction. In the event of a transfer or assignment as provided herein, the Holder and transferee or assignee shall execute and deliver a Transfer Form in the form attached hereto as Attachment 4 to the Company, and the Company shall promptly issue a new warrant (or warrants, if applicable) pursuant to the instructions in such Transfer Form.

Notwithstanding anything to the contrary herein, the Holder may transfer or assign this Warrant, in whole or in part, without providing the Company an opinion of counsel or any other documentation (a) to an affiliate of the Holder or (b) to a charitable organization if the Company becomes the subject of foreign ownership, control or influence, provided that the Holder and transferee or assignee execute and deliver a Transfer Form in the form attached hereto as Attachment 4 to the Company. Notwithstanding the foregoing, this Warrant may not be transferred to a competitor of the Company, or a foreign person, foreign government, or person controlled by or acting on behalf of a foreign person or government, without the written consent of the Company.

9. **Termination.** This Warrant shall terminate at 5:00 p.m. eastern time on the Termination Date.

10. **Representations and Warranties.** The Company hereby represents and warrants to the Holder that:

(a) The authorization, execution and delivery of the Warrant will not constitute or result in a material default or violation of any law or regulation applicable to the Company or any material term or provision of the Company's current charter or bylaws or any material agreements or instrument by which it is bound or to which its properties or assets are subject.

(b) The Warrant Stock, when issued, and delivered in accordance with the terms of this Warrant for the consideration expressed herein, will be duly and validly issued, fully paid and non-assessable and, based in part upon the representations and warranties of the Holder as set forth in Attachment 2, will be issued in compliance with all applicable federal and state securities laws.

11. **Loss or Mutilation.** Upon receipt of evidence satisfactory to the Company of the loss, theft, destruction or mutilation of this Warrant (including a reasonably detailed affidavit with respect to the circumstances of any loss, theft or destruction of such Warrant), and, in the case of any such mutilation, upon surrender and cancellation of this Warrant, the Company at its expense will execute and deliver, in lieu hereof, a new Warrant of like tenor.

12. **Miscellaneous.** This Warrant shall be governed in all material respects by the internal laws 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 internal laws of the Commonwealth of Massachusetts, without regard to its principles of conflicts of laws. In the event of any dispute among the Holder and the Company arising out of the terms of this Warrant, the parties hereby consent to the exclusive jurisdiction of the federal and state courts located in the State of Delaware for resolution of such dispute, and agree not to contest such exclusive jurisdiction or seek to transfer any action relating to such dispute to any other jurisdiction. The headings in this Warrant are for purposes of convenience and reference only,

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and shall not be deemed to constitute a part hereof. Neither this Warrant nor any term hereof may be changed or waived orally, but only by an instrument in writing signed by the Company and the Holder of this Warrant. All notices and other communications from the Company to the Holder of this Warrant shall be delivered personally or by facsimile or other electronic transmission or mailed by first class mail, postage prepaid, to the address, facsimile number or electronic address furnished to the Company in writing by the last Holder of this Warrant who shall have furnished an address, facsimile number or electronic address to the Company in writing, and if mailed shall be deemed given three (3) days after deposit in the United States mail.

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ISSUED: \_\_\_\_\_, 2011

**T2 BIOSYSTEMS, INC.**

By: \_\_\_\_\_  
Name: John McDonough  
Title: President and Chief Executive Officer

Agreed to and accepted:

**HOLDER:**

**Massachusetts Development Finance Agency**

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

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ATTACHMENT 1  
NOTICE OF EXERCISE

TO: T2 Biosystems, Inc.

1. The undersigned hereby elects to purchase \_\_\_\_\_ shares of the Warrant Stock of \_\_\_\_\_ pursuant to the terms of the attached Warrant, and tenders herewith payment of the purchase price in full, together with all applicable transfer taxes, if any.
2. Please issue a certificate or certificates representing said shares of Warrant Stock in the name of the undersigned or in such other name as is specified below:

Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
Date: \_\_\_\_\_

**MASSACHUSETTS DEVELOPMENT  
FINANCE AGENCY**

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

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ATTACHMENT 2  
INVESTMENT REPRESENTATION STATEMENT

Shares of the Series C Preferred Stock  
(as defined in the attached Warrant)

In connection with the purchase of the above-listed securities, the undersigned hereby represents to T2 Biosystems, Inc. (the "**Company**") as follows:

- (a) The securities to be received upon the exercise of the Warrant (the "Securities") will be acquired for investment for its own account, not as a nominee or agent, and not with a view to the sale or distribution of any part thereof, and the undersigned has no present intention of selling, granting any participation in or otherwise distributing the same. By executing this statement, the undersigned further represents that it does not have any contract, undertaking, agreement or arrangement with any person to sell, transfer, or grant participations to such person or to any third person, with respect to any Securities issuable upon exercise of the Warrant.
- (b) The undersigned understands that the Securities issuable upon exercise of the Warrant at the time of issuance may not be registered under the Securities Act of 1933, as amended (the "Securities Act"), and applicable state securities laws, by reason of a specific exemption from the registration provisions of the Securities Act and state law, the availability of which depends upon, among other things, the bona fide nature of the investment intent and the accuracy of the undersigned's representations set forth herein.
- (c) The undersigned agrees that in no event will it make a disposition of any Securities acquired upon the exercise of the Warrant unless and until the undersigned provides, at the Company's request, an opinion of counsel reasonably satisfactory to the Company that such transfer does not require registration under the Securities Act and the securities laws applicable with

respect to any other applicable jurisdiction and that the transfer does not constitute a transaction with a foreign person, foreign government, or person controlled by or acting on behalf of a foreign government. Notwithstanding the foregoing, no opinion of counsel or any other documentation shall be necessary and such transfer or assignment by the undersigned shall be permitted (a) if such transfer or assignment is to an affiliate of the undersigned or (b) if the Company becomes the subject of foreign ownership, control or influence and such transfer or assignment is to a charitable organization.

(d) The undersigned acknowledges that an investment in the Company is highly speculative and represents that it is able to fend for itself in the transactions contemplated by this statement, has such knowledge and experience in financial and business matters as to be capable of evaluating the merits and risks of its investments, and has the ability to bear the economic risks (including the risk of a total loss) of its investment. The undersigned represents that it has had the opportunity to ask questions of the Company concerning the Company's business and assets and to obtain any additional information which it considered necessary to verify the accuracy of or to amplify the Company's disclosures, and has had all questions which have been asked by it satisfactorily answered by the Company.

(c) The undersigned acknowledges that the Securities must be held indefinitely unless subsequently registered under the Securities Act or an exemption from such registration is available. The undersigned is aware of the provisions of Rule 144 promulgated under the Securities Act which permit limited resale of shares purchased in a private placement subject to the satisfaction of certain conditions, including among other things, the existence of a public market for the shares, the availability of certain current public information about the Company, and the resale occurring not less than six months after a party has purchased and paid for the security to be sold. The undersigned understands that the current public information referred to above is not now available and the Company has no present plans to make such information available. The undersigned acknowledges and understands that the Company may not be satisfying the current public information requirement of Rule 144 at the time the undersigned wishes to sell the Securities, and that, in such event, the Investor may be precluded from selling such Securities under Rule 144, even if the other requirements of Rule 144 have been satisfied. The undersigned acknowledges that, in the event all of the requirements of Rule 144 are not met, registration under the Securities Act or an exemption from registration will be required for any disposition of the Securities.

(f) The undersigned is an "accredited investor" within the meaning of Regulation D, Rule 501(a), promulgated by the Securities and Exchange Commission under the Securities Act and shall submit to the Company such further assurances of such status as may be reasonably requested by the Company.

Date: \_\_\_\_\_

**MASSACHUSETTS DEVELOPMENT  
FINANCE AGENCY**

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

ATTACHMENT 3  
NOTICE OF CONVERSION

TO: T2 Biosystems, Inc.

1. The undersigned hereby elects to acquire \_\_\_\_\_ shares of the Warrant Stock of \_\_\_\_\_ pursuant to the terms of the attached Warrant, by conversion of \_\_\_\_\_ percent ( \_\_\_\_\_ %) of the Warrant.

2. Please issue a certificate or certificates representing said shares of Warrant Stock in the name of the undersigned or in such other name as is specified below and to the address as is specified below:

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Date: \_\_\_\_\_

**MASSACHUSETTS DEVELOPMENT  
FINANCE AGENCY**

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

ATTACHMENT 4  
TRANSFER FORM

The undersigned holder of this Warrant hereby assigns and transfers unto the Transferee named below all of the rights of the undersigned Holder under the Warrant enclosed herewith, with respect to the number of shares of Series C Preferred Stock of T2 Biosystems, Inc. ("**Company**") set forth below:

<u>Name of Transferee</u>	<u>Address</u>	<u>No. of Shares</u>

Please issue a (1) new Warrant (or new Warrants if applicable) to the above-referenced name(s) for the number of shares of Series C Preferred Stock as specified above and (2) if applicable, for the untransferred portion of the enclosed Warrant in the name of the undersigned Holder.

Date: \_\_\_\_\_

**MASSACHUSETTS DEVELOPMENT  
FINANCE AGENCY**

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

The undersigned Transferee represents that (1) the Warrant to be issued to Transferee is being acquired, and any share of stock issuable upon exercise or conversion of such Warrant will be acquired, for investment purposes, (2) the Transferee is not acquiring the Warrant with a view to or for sale in connection with, any distribution thereof, nor with any present intention to sell or

otherwise dispose of such Warrant except under circumstances which will not result in a violation of the Securities Act of 1933, as amended, (3) the Transferee is not a foreign person, foreign government, or person controlled by or acting on behalf of a foreign person or government and (4) the Transferee is not a competitor of the Company.

The Transferee hereby agrees to be bound by all of the terms and provisions of the Warrant.

Date: \_\_\_\_\_

Transferee: \_\_\_\_\_

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

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**Consent of Independent Registered Public Accounting Firm**

We consent to the reference to our firm under the caption "Experts" and to the use of our report dated April 24, 2014 in the Registration Statement (Form S-1) and related Prospectus of T2 Biosystems, Inc. dated July 2, 2014.

/s/ Ernst & Young LLP

Boston, MA  
July 2, 2014

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## SIGNATURES AND POWER OF ATTORNEY

We, the undersigned officers and directors of T2 Biosystems, Inc., hereby severally constitute and appoint John McDonough and Marc Jones, and each of them singly (with full power to each of them to act alone), our true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution in each of them for him and in his name, place and stead, and in any and all capacities, to sign any and all amendments (including post-effective amendments) to this registration statement (or any other 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 other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite or necessary to be done in and about the premises, as full to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or their or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities held on the dates indicated.

Signature	Title	Date
<u>/s/ John McDonough</u> John McDonough	President, Chief Executive Officer and Director (principal executive officer)	April 24, 2014
<u>/s/ Marc R. Jones</u> Marc R. Jones	Chief Financial Officer (principal financial and accounting officer)	April 24, 2014
<u>/s/ David B. Aronoff</u> David B. Aronoff	Director	April 24, 2014
<u>/s/ Joshua Bilenker, M.D.</u> Joshua Bilenker, M.D.	Director	April 24, 2014
<u>/s/ Thomas J. Carella</u> Thomas J. Carella	Director	April 24, 2014
<u>/s/ Michael J. Cima, Ph.D.</u> Michael J. Cima, Ph.D.	Director	April 24, 2014
<u>/s/ Alan Crane</u> Alan Crane	Director	April 24, 2014
<u>/s/ Stacy A. Feld</u> Stacy A. Feld	Director	April 24, 2014
<u>/s/ Robert Langer, D. Sc.</u> Robert Langer, D. Sc.	Director	April 24, 2014
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<u>/s/ Stanley N. Lapidus</u> Stanley N. Lapidus	Director	April 24, 2014
<u>/s/ Harry W. Wilcox</u> Harry W. Wilcox	Director	April 24, 2014