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SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form 10-K

x **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

for the fiscal year ended December 31, 2015

or

o TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

Commission File Number 001-35280

VERICEL CORPORATION

(Exact name of registrant as specified in its charter)

Michigan	**94-3096597**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

64 Sidney Street
Cambridge, MA 02139
(Address of principal executive offices, including zip code)

Registrant's telephone number, including area code: **(800) 556-0311**

Securities registered pursuant to Section 12(b) of the Act:

Title of Class	**Name of Each Exchange on Which Registered**
Common Stock (No par value)	The NASDAQ Stock Market, Inc.

Securities registered pursuant to Section 12(g) of the Act: **None**

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes o No x

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes o No x

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes x No o

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes x No o

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§ 229.405) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. x

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

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

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes o No x

The aggregate market value of the registrant's Common Stock, no par value ("Common Stock"), held by non-affiliates of the registrant (based on the closing sales price of the Common Stock as reported on the NASDAQ Capital Market) on June 30, 2015 was approximately $86,924,377. This computation excludes shares of Common Stock held by directors, officers and each person who holds 5% or more of the outstanding shares of Common Stock, since such persons may be deemed to be affiliates of the registrant. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

As of March 8, 2016, 23,852,412 shares of Common Stock, no par value, were outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Document	**Form 10-K Reference**
Proxy Statement for the Annual Meeting of Shareholders scheduled for May 4, 2016	Items 10, 11, 12, 13 and 14 of Part III

VERICEL CORPORATION

ANNUAL REPORT ON FORM 10-K

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Cautionary Note Regarding Forward-Looking Statements

This Annual Report on Form 10-K contains certain statements that describe our management's beliefs concerning future business conditions, plans and prospects, growth opportunities and the outlook for our business based upon information currently available. Such statements are "forward-looking" statements within the meaning of the Private Securities Litigation Reform Act of 1995. Wherever possible, we have identified these forward-looking statements by words such as "will," "may," "anticipates," "believes," "intends," "estimates," "expects," "projects" and similar phrases. These forward-looking statements are based upon assumptions our management believes are reasonable. Such forward-looking statements are subject to risks and uncertainties which could cause our actual results, performance and achievements to differ materially from those expressed in, or implied by, these statements, including, among others, the risks and uncertainties listed in this Annual Report on Form 10-K under "Part I, Item 1A Risk Factors".

Because our forward-looking statements are based on estimates and assumptions that are subject to significant business, economic and competitive uncertainties, many of which are beyond our control or are subject to change, actual results could be materially different and any or all of our forward-looking statements may turn out to be wrong. Forward-looking statements speak only as of the date made and can be affected by assumptions we might make or by known or unknown risks and uncertainties. Many factors mentioned in our discussion in this Annual Report on Form 10-K will be important in determining future results. Consequently, we cannot assure you that our expectations or forecasts expressed in such forward-looking statements will be achieved. Except as required by law, we undertake no obligation to publicly update any of our forward-looking or other statements, whether as a result of new information, future events, or otherwise.

Except for the historical information presented, the matters discussed in this Report, including our product development and commercialization goals and expectations, our plans and anticipated timing and results of clinical development activities, potential market opportunities, revenue expectations and the potential advantages and applications of our products and product candidates under development, include forward-looking statements that involve risks and uncertainties. Our actual results may differ significantly from the results discussed in the forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those discussed under the caption "Risk Factors." Unless the context requires otherwise, references to "we," "us," "our" and "Vericel" refer to Vericel Corporation.

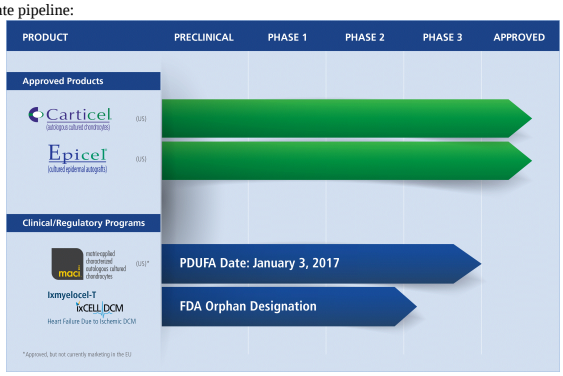
PART I

Item 1. *Business*

General Information

Vericel Corporation is a leader in developing patient-specific expanded cellular therapies for use in the treatment of patients with severe diseases and conditions. We market two autologous cell therapy products in the United States: Carticel® (autologous cultured chondrocytes), an autologous chondrocyte implant for the treatment of cartilage defects in the knee, and Epicel® (cultured epidermal autografts), a permanent skin replacement for the treatment of patients with deep-dermal or full-thickness burns comprising greater than or equal to 30 percent of total body surface area (TBSA). We are also developing MACI™, a third-generation autologous chondrocyte implant for the treatment of cartilage defects in the knee, and ixmyelocel-T, a patient-specific multicellular therapy for the treatment of advanced heart failure due to ischemic dilated cardiomyopathy (DCM).

The following table summarizes our product portfolio and product candidate pipeline:



Acquisition of Sanofi's CTRM Business

On May 30, 2014, we completed the acquisition of the Cell Therapy and Regenerative Medicine (CTRM) business of Sanofi, a French *société anonyme* (Sanofi), certain assets, including all of the outstanding equity interests of Genzyme Biosurgery ApS (now known as Vericel Denmark ApS), a wholly-owned subsidiary of Sanofi, and over 250 patents and patent applications of Sanofi and certain of its subsidiaries, and assumed certain liabilities for purposes of acquiring the portion of the CTRM business, which researches, develops, manufactures, markets and sells Carticel, MACI and Epicel.

Our Strategy

Our objective is to become the leading cell therapy and regenerative medicine company by developing, manufacturing and marketing best-in-class therapies for patients with significant unmet medical needs that require the repair and regeneration of damaged tissues and organs.

To achieve this objective, we intend to:

- Fully integrate the acquired commercial stage CTRM business and improve efficiencies to reduce redundancies and related costs, as well as take advantage of complementary technology platforms;
- Increase the operating income from the U.S. Carticel and Epicel business and become profitable without raising additional equity capital unless required for additional strategic transactions or other events;
- Lower the manufacturing costs for Carticel through an improved ratio of Carticel unit sales to biopsies as well as other efficiencies;
- Assess and capitalize on opportunities to increase revenue from Carticel and Epicel in the U.S.;
- Develop and execute on a regulatory strategy for the approval of MACI in the U.S.;
- Expand Epicel usage in the severely burned patient segment by increasing sales and marketing resources;
- Capitalize on our recent U.S. Food and Drug Administration (FDA) approval to label Epicel for use in pediatric patients and the related determination from the FDA that Epicel meets the criteria to be sold for profit; and
- Initiate and complete our pivotal phase 3 clinical trials for the treatment of the orphan indication, advanced heart failure due to ischemic DCM, and evaluate potential strategic collaborations.

Our Products

We believe that our acquired CTRM business has been a pioneer in the development and commercialization of autologous cell therapies. The CTRM portfolio includes three autologous cell therapy products: Carticel (autologous cultured chondrocytes), a first-generation product for autologous chondrocyte implantation (ACI) currently marketed in the U.S., Epicel (cultured epidermal autografts), a permanent skin replacement for full thickness burns in adults and pediatrics with greater than or equal to 30% of TBSA, also currently marketed in the U.S, and MACI (matrix-applied characterized autologous cultured chondrocytes), a third-generation ACI product approved in Europe and for which a Biologics License Application (BLA) is under review by the FDA. Our product candidate portfolio also includes ixmyelocel-T, a patient-specific multicellular therapy currently in development for the treatment of advanced heart failure due to ischemic DCM.

Background of Cartilage Defects

Damage to cartilage in the knee can occur from acute trauma or repetitive trauma from playing sports, exercising, working or performing everyday activities. When damaged, cartilage in the knee does not usually heal on its own. If left untreated, cartilage defects can progress and lead to degenerative joint disease, osteoarthritis and potentially require total knee replacement, a poor option for younger and more active patients.

For patients diagnosed with cartilage defects, there are several treatment options, including arthroscopic debridement/chondroplasty, marrow stimulation techniques such as microfracture, a minimally invasive procedure that can be performed during the initial arthroscopic procedure, osteochondral autografts for smaller cartilage injuries, allografts, and autologous chondrocyte implants for larger injuries.

Carticel

Carticel, a first-generation ACI product for the treatment and repair of cartilage defects in the knee, is the first and currently the only FDA-approved autologous cartilage repair product. Carticel is indicated for the repair of symptomatic cartilage defects of the femoral condyle (medial, lateral or trochlea) caused by acute or repetitive trauma, in patients who have had an inadequate response to a prior arthroscopic or other surgical repair procedure such as debridement (the removal of damaged or defective cartilage), microfracture (the creation of tiny fractures in the bone to encourage new cartilage development, drilling/abrasion arthroplasty), or osteochondral allograft/autograft (transferring cartilage from one joint to another). Carticel received a BLA approval in 1997 and is currently marketed in the U.S. It is generally used on patients with larger lesions (greater than 3 cm^2).

Carticel is implanted by orthopedic surgeons after obtaining a cartilage biopsy during an initial arthroscopic procedure. The patient’s chondrocytes, which are the cells that produce cartilage, are isolated and expanded in a manufacturing process compliant with current Good Manufacturing Practices (cGMP). During a second surgical procedure, the cells are implanted in the cartilage defect under a sutured periosteal flap, where they produce new hyaline cartilage. The therapeutic advantage of this approach

relative to other approaches, such as microfracture, is that the autologous chondrocytes produce the hyaline cartilage that is naturally present in the knee, rather than fibrous cartilage which lacks durability and the wear characteristics of hyaline cartilage.

The Study of the Treatment of Articular Repair (STAR) was designed to determine the safety and efficacy of Carticel in patients who had an inadequate response to a prior cartilage repair procedure. Completed in 2005, this FDA post-approval commitment was a four-year, prospective, multicenter study of 154 patients at 29 participating sites. In a clinically challenging population comprised of patients who suffered moderate-to-large chondral defects and who failed at least one prior surgical cartilage repair treatment, Carticel demonstrated long-term durability up to four years and statistically significant and clinically meaningful reductions in pain and improvement in function.

Market Opportunity for Carticel

In the U.S. annually, there are approximately 1 million arthroscopic procedures and more than 250,000 cartilage surgical procedures. In addition, approximately 50,000 have full thickness defects greater than 2 cm^2. Patients seek retreatment for the repair of larger, symptomatic femoral condyle cartilage defects caused by acute or repetitive trauma. In our experience, patients are often frustrated by recurring symptoms, as they tend to be young, active and motivated to return to a high level of activity.

Typical initial cartilage surgical procedures include chondroplasty (debridement) and/or microfracture. These two procedures account for 98% of all cartilage surgical procedures. Although initial microfracture results demonstrate pain score improvement generally, only patients with Class 1, or the smallest, defects do not experience deterioration after 18 months. Patients seeking retreatment account for about 2.5% of the cartilage surgical repair market and often receive either allograft, autograft or ACI. Treatment with Carticel provides an opportunity to replace the damaged cartilage with native hyaline cartilage.

In the U.S., the orthopedic physician target audience is very concentrated, with 60% of the current Carticel business originating from approximately 110 physicians. Our target audience is a group of physicians who self-identify as or have the formal specialty of sports medicine physicians. We believe this target audience is approximately 450 physicians. We currently have a 21 person field force calling on these sports-injury targeted orthopedic physician audience. Most private payers have a medical policy that allows treatment with Carticel. The 15 largest payers have a formal medical policy for Carticel, representing 132 million covered lives.

In the year ended December 31, 2015, approximately 1,050 Carticel implants were performed, which generated net revenues of approximately $35.2 million. Carticel revenue is subject to seasonal fluctuations with stronger sales occurring in the fourth quarter and second quarter due to a number of factors including insurance copay limits and the time of year patients prefer to start rehabilitation. Over the last five years, the percentage of annual sales by quarter has ranged as follows: first quarter, 20% to 24%; second quarter, 24% to 26%; third quarter, 21% to 23%; and fourth quarter, 29% to 33%.

Epicel

Epicel (cultured epidermal autografts) is a permanent skin replacement for full thickness burns greater than or equal to 30% of TBSA. Epicel is currently the only FDA-approved autologous epidermal product available for large total surface area burns. Currently, fewer than 100 patients are treated with Epicel in the U.S. each year. In the year ended December 31, 2015, net revenues were $15.2 million for Epicel.

Epicel is produced by isolating and expanding keratinocytes, which are the predominant cell type in the epidermis or outer layer of the skin, obtained from a small biopsy of a patient’s healthy skin. Epicel is an important treatment option for patients with severe burns because these patients are generally understood to need a keratinocyte-based epithelium and there is very little skin, which is the only other source of keratinocyte-based epithelium, available for autografts for these patients.

Epicel is a cell-based product that is regulated by the Center for Biologics Evaluation and Research (CBER) under medical device authorities. Epicel was designated as a Humanitarian Use Device (HUD) in 1998 and a Humanitarian Device Exemption (HDE) application for the product was submitted in 1999. HUDs are devices that are intended for diseases or conditions that affect fewer than 4,000 individuals annually in the United States. Under an HDE approval, a HUD cannot be sold for an amount that exceeds the cost of research and development, fabrication and distribution unless certain conditions are met.

A HUD is eligible to be sold for profit after receiving HDE approval if the device meets the following eligibility criteria:

- The device is intended for the treatment or diagnosis of a disease or condition that occurs in pediatric patients or in a pediatric subpopulation, and such device is labeled for use in pediatric patients or in a pediatric subpopulation in which the disease or condition occurs; or

- The device is intended for the treatment or diagnosis of a disease or condition that does not occur in pediatric patients or that occurs in pediatric patients in such numbers that the development of the device for such patients is impossible, highly impracticable or unsafe.

If the FDA determines that a HUD meets the eligibility criteria, the HUD is permitted to be sold for profit as long as the number of devices distributed in any calendar year does not exceed the annual distribution number (ADN). The ADN is defined as the number of devices reasonably needed to treat, diagnose or cure a population of 4,000 individuals per year in the United States. The holder of the HDE must immediately notify FDA if the number of devices distributed during a calendar year exceeds the ADN.

On February 18, 2016, the FDA approved our HDE supplement to revise the labeled indications of use to specifically include pediatric patients and to add pediatric labeling. The revised product label also now specifies that the probable benefit of Epicel, mainly related to survival, was demonstrated in two Epicel clinical experience databases and a physician-sponsored study comparing outcomes in patients with massive burns treated with Epicel relative to the standard care. Due to the change in the label to include use in pediatric patients, Epicel is no longer subject to the HDE profit restrictions. In conjunction with meeting the pediatric eligibility criteria, the FDA has determined that the ADN for Epicel is 360,400 devices.

Market Opportunity for Epicel

Each year in the U.S., more than 40,000 people are hospitalized for burns. More than 2,000 of these patients are treated for burns covering more than 30% of their TBSA, the labeled indication for Epicel. Of these patients, approximately 100 patients were treated with Epicel in 2015. Currently, the mortality rate for this group is approximately 34%, partially due to the lack of healthy tissue from which to harvest autografts. Although age can vary, the typical Epicel patient is young and has suffered full thickness burns due to occupational, household or auto accidents, trash burning with gasoline, inappropriate use of space heaters or carelessness with flammable materials. Many of the most severely burned patients are medivac transported to one of the 128 specialized burn centers across the U.S. While the average acute care hospital has less than 3 admissions for burns annually, these specialized burn centers average over 200 admissions per year.

Relative to clinical need, we believe Epicel is underutilized due to lack of consistent promotional effort and burn center support. We expect Epicel's utility to grow as commercial and regulatory efforts are appropriately dedicated to the product and providers. In 2014, a single sales representative supported Epicel in 2014, and in 2015, we expanded our Epicel sales force to four.

Epicel revenue is subject to seasonal fluctuations mostly associated with the use of heating elements during the colder months, with stronger sales occurring in the winter months of the first and fourth quarters, and weaker sales occurring in the hot summer months of the third quarter. However, in any single year, this trend can be absent due to the extreme variability inherent with Epicel's low patient volume of approximately 100 patients per year. Over the last five years, the percentage of annual sales by quarter has ranged as follows: first quarter, 27%; second quarter, 25%; third quarter, 20%; and fourth quarter, 28%. The variability between the same quarters in consecutive years has been as high as 10% of the annual volume. While the number of patients treated per year remains low, we expect these large swings in revenue in some quarters to continue.

MACI

MACI, is a third-generation ACI product for the treatment of focal chondral cartilage defects in the knee. MACI received marketing authorization in Europe in June 2013 by meeting the requirements of the Advanced Therapy and Medicinal Product (ATMP) guidelines based on the results of the SUMMIT trial in which MACI was manufactured at, and supplied from, the Cambridge, Massachusetts site. MACI has been commercially available in the EU since 1998. As part of the June 2014 restructuring, we temporarily suspended the marketing of MACI as of September 2014 primarily due to low utilization and an unfavorable pricing environment. The timing and strategy for a possible reintroduction in select EU countries have not yet been determined. We believe that MACI has significant revenue potential in the U.S., if approved and reimbursed. On March 4, 2016, the FDA accepted the company's BLA seeking approval to market MACI as an autologous cellular treatment for symptomatic cartilage defects of the knee. The FDA provided a PDUFA (Prescription Drug User Fee Act) goal date of January 3, 2017. In addition, the FDA communicated that it is not currently planning to hold an advisory committee meeting to discuss the application.

Similar to Carticel, during an initial surgical procedure, a surgeon obtains a biopsy of healthy cartilage from the patient and the chondrocytes are isolated, expanded and uniformly seeded onto a bioabsorbable Type I/III collagen membrane to form the autologous implantation. MACI is manufactured in a cGMP manufacturing facility. Unlike Carticel, MACI is implanted during a mini-arthrotomy in which the implant is trimmed to the size of the defect and fixed in the defect with fibrin glue and without sutures.

The pivotal clinical trial supporting MACI registration in Europe, Superiority of MACI Implant to Microfracture Treatment (SUMMIT), was completed in 2012. Analysis of this 144 patient superiority study demonstrated that there is a statistically significant and clinically meaningful improvement in the co-primary endpoint of pain and function for those patients treated with a MACI implant compared to microfracture which was the current standard of care.

MACI was obtained via the acquisition by Genzyme Corporation, a subsidiary of Sanofi, of Verigen AG (Verigen) in 2005. As part of its acquisition of Verigen, Genzyme Corporation agreed to make cash payments to Verigen upon the achievement of developmental milestones relating to regulatory and commercialization of MACI in the United States. In connection with our acquisition of the CTRM business, we agreed that if we further developed MACI in the U.S., we would be obligated to pay these milestone payments. In the third quarter of 2014, at the request of the Company, Sanofi entered into a settlement agreement with the former shareholders of Verigen whereby these shareholders agreed to discharge all obligations related to these MACI milestone payments in exchange for a one-time cash payment of €2.5 million (approximately $3.2 million). We accrued the liability in the third quarter of 2014 and paid the amount in full in October 2014. This agreement was reached in full settlement of any and all potential obligations to Verigen related to future MACI developmental milestones.

Market Opportunity for MACI

MACI, if introduced in the U.S., should both replace Carticel and expand the market since we believe MACI shares the advantages of Carticel, while being less invasive, shortening procedure time, eliminating the need for a periosteal harvest and having a lower frequency of subsequent surgical interventions.

Marrow Donation

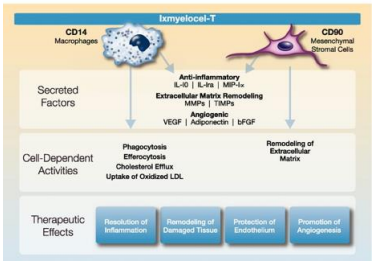
In December 2015, we ceased operations at our bone marrow collection center located in San Diego, California (operated by our wholly-owned subsidiary Marrow Donation, LLC).

Ixmyelocel-T Technology Platform

In 2015, our preapproval stage portfolio also included ixmyelocel-T, a unique patient-specific multicellular therapy derived from an adult patient's own bone marrow, which utilized our proprietary, highly automated and scalable manufacturing system. Our proprietary cell manufacturing process significantly expands the mesenchymal stromal cells (MSCs) and M2-like anti-inflammatory macrophages in the patient's bone marrow mononuclear cells while retaining many of the hematopoietic cells. These cell types are known to regulate the immune response and play a key role in tissue repair and regeneration by resolving pathologic inflammation, promoting angiogenesis, and remodeling ischemic tissue. We believe the novelty and advantage of using ixmyelocel-T is the expansion of a unique combination of cell populations, including MSCS and M2-like macrophages, which secrete a distinct combination of angiogenic and regenerative factors, and possess the ability to remain anti-inflammatory in the face of inflammatory challenge.

MSCs and M2-like macrophages have a wide range of biological activities that promote repair and regeneration of damaged tissues through the paracrine effects of their secreted factors, as well as their direct cell activities. These cells produce high levels of potent anti-inflammatory and angiogenic factors, as well as factors involved in extracellular matrix remodeling. These cells also have direct activities such as phagocytosis of cellular debris and apoptotic cells, which control the inflammatory response, uptake of LDL and removal of cholesterol, and remodeling of extracellular matrix.

The following illustration summarizes the multiple biological activities of ixmyelocel-T that promote repair and regeneration of ischemic tissue:



Studies examining the impact of ixmyelocel-T on human umbilical vein endothelial cells *in vitro* demonstrate the secretion of pro-angiogenic factors, enhanced migration of endothelial cells following injury, increased endothelial cell proliferation, and branch formation. Treatment with ixmyelocel-T in a rat model of hind limb ischemia *in vivo* resulted in significantly increased blood flow perfusion and capillary density, gene expression and plasma levels of the anti-inflammatory cytokine. Our studies demonstrate that ixmyelocel-T brings to bear a dynamic combination of angiogenic and anti-inflammatory effects, which facilitate ischemic tissue repair.

Ixmyelocel-T has several features that we believe are primarily responsible for success in treating adult patients with severe ischemic cardiovascular diseases such as advanced heart failure due to ischemic DCM:

- *Patient-specific (autologous)* — We start with the patient's own cells, which are accepted by the patient's immune system, allowing the cells to integrate into existing functional tissues. We believe that this characteristic of our therapy eliminates both the risk of rejection and the need to use immunosuppressive therapy pre- or post-therapy. Our data also suggests that ixmyelocel-T may provide the potential for long-term engraftment and tissue repair.

- *Expanded* — We begin with a small amount of bone marrow from the patient (up to 60 ml) and significantly expand the number of certain cell types, primarily MSCs and M2-like anti-inflammatory macrophages, to a substantially greater number than are present in the patient's own bone marrow (up to 200 times the number of certain cell types compared with the starting bone marrow).

- *Multicellular* — We believe the multiple cell types in ixmyelocel-T, which are normally found in bone marrow but in smaller quantities, possess the key functions required for reducing chronic inflammation and promoting angiogenesis and tissue repair. By reducing inflammation, we believe that ixmyelocel-T provides the ideal conditions to allow for the growth of new tissue and blood vessels.

- *Minimally invasive* — Our procedure for collecting bone marrow can be performed in an out-patient setting and takes approximately 15 minutes. Administration of ixmyelocel-T for the treatment of advanced heart failure due to ischemic dilated cardiomyopathy is performed in the cardiac catheterization laboratory using a cell injection catheter system in a one-time procedure. Bone marrow and bone marrow-derived therapies have been used safely and efficaciously in medicine for over three decades. Ixmyelocel-T leverages this body of scientific study and medical experience, and appears well tolerated in over 200 patients treated to date.

Ixmyelocel-T Clinical Development Programs

Our clinical development program is focused on addressing severe, chronic ischemic cardiovascular disease, an area of high unmet medical need. We have completed our Phase 1/2 clinical trials in DCM, and on March 10, 2016 we announced that our Phase 2b ixCELL-DCM study, which is a randomized, double-blind, placebo-controlled clinical trial for patients with advanced heart failure due to ischemic DCM, had met its primary endpoint of reduction in clinical cardiac events and that ixmyelocel-T has comparable incidence of adverse events, including serious adverse events, relative to patients in the placebo group.

Ixmyelocel-T has been granted a U.S. Orphan Drug designation by the FDA for the treatment of DCM. We also have an ixmyelocel-T investigator-initiated clinical study for the treatment of craniofacial reconstruction, for which we expect results by the first half of 2016, and we have conducted clinical studies for the treatment of CLI.

Heart Failure Due to Dilated Cardiomyopathy

Heart failure represents a significant unmet medical need and a growing public health problem. The American Heart Association reports that there are approximately six million patients currently suffering from heart failure in the United States and an estimated 550,000 new cases in the U.S. each year. Current medical costs to treat these patients exceed $25 billion and this is expected to more than triple to nearly $80 billion by 2030 as a result of a growing patient population and the high cost of the limited treatment alternatives for advanced heart failure patients, as described below.

DCM is a leading cause of heart failure and of heart transplantation in the United States. DCM is a disease characterized by weakening of the heart muscle, thinning of the heart walls, enlargement of the heart chambers, and the inability to sufficiently pump blood throughout the body. Patients with DCM typically present with symptoms of congestive heart failure, including limitations in physical activity and shortness of breath. Ischemic DCM is associated with atherosclerotic cardiovascular disease and prior heart attacks and is the most common form of dilated cardiomyopathy. Patient prognosis depends on the stage and cause of the disease, but is typically characterized by a very poor quality of life and a high mortality rate.

Current treatments for ischemic DCM patients that are refractory to further medical therapy such as prescription drugs, devices, and/or further revascularization procedures including bypass surgery and angioplasty, are limited to heart transplantation and placement of left ventricular assist devices (LVADs). There are less than 2,500 heart transplantations in the United States each year. Many refractory DCM patients are not eligible for heart transplantation and transplants are extremely expensive at an estimated cost of approximately $1 million. LVADs are also expensive at an estimated cost of over $175,000 and have a mortality rate of 50% at two years.

We believe that the refractory ischemic DCM market represents a substantial market opportunity for ixmyelocel-T. These refractory ischemic DCM patients are currently the target patient population for our clinical development of ixmyelocel-T. The estimated incidence of DCM is 148 cases per 100,000 persons, or 444,000 patients. The more severe or refractory (NYHA Class III/IV) ischemic DCM patient population is difficult to estimate, but we believe it to be approximately one third of the overall DCM population. Ixmyelocel-T has been granted a U.S. Orphan Drug designation by the FDA for the treatment of DCM, which we believe provides the potential for an efficient and cost-effective path to approval for ixmyelocel-T in this heart failure indication.

We have conducted two Phase 2a multicenter, randomized, open-label clinical studies in patients with ischemic DCM and nonischemic DCM investigating surgical (IMPACT-DCM) and catheter-based (Catheter-DCM) delivery of ixmyelocel-T. Sixty-one patients were randomized, and of those, 59 received treatment in the phase 2a studies. We reported 12-month data for the surgical IMPACT-DCM study at the Heart Failure Society of America meeting in September 2011 and final 12-month results from the Catheter-DCM study at the Society for Cardiovascular Angiography and Interventions (SCAI) 2012 Scientific Sessions. The results have also been published in the journal Circulation Research in August of 2014. Results from these studies demonstrated that ixmyelocel-T was well-tolerated in patients with DCM. In the Catheter-DCM study and post-surgery in the IMPACT-DCM study, the incidence of adverse events was comparable between the ixmyelocel-T groups and the control groups.

While these exploratory Phase 2a studies were not powered for determining differences in efficacy between treatment groups, there were consistent trends of clinically meaningful improvement in clinical endpoints observed in the ischemic DCM groups in both studies. In these studies, fewer ischemic patients treated with ixmyelocel-T experienced a MACE during follow up compared to control patients, representing greater than 50% reduction in the number of patients having a MACE event. A similar benefit was not seen in the non-ischemic patients. Heart failure exacerbation was the most common MACE. In the combined ischemic DCM groups across both studies, MACE were experienced by a lower percentage of ixmyelocel T-treated patients compared to control patients, representing greater than 50% reduction in the number of patients having a MACE event. Likewise, patients in the combined ischemic DCM groups that were treated with ixmyelocel-T had a reduction in the average number of MACE events per patient. MACE is the recommended endpoint (mortality and cardiovascular hospitalizations) in Phase 3 heart failure studies as stated in the FDA 2009 Somatic Cell Therapy for Cardiac Diseases Draft Guidance. Consistent positive trends also were observed in several secondary efficacy measures in the ischemic DCM groups. The majority of ixmyelocel-T-treated patients with ischemic DCM, but not control patients, had statistically significant improvement in New York Heart Association (NYHA) Class that was sustained over the 12 months following treatment. Improvement in NYHA Class is considered clinically meaningful. Additionally, a higher percentage of ixmyelocel T-treated ischemic DCM patients showed a clinically meaningful improvement in self-reported quality of life and a statistically significant increase in six-minute walk distance compared to the ischemic DCM control patients. Since the initiation of the trial, 28 clinical trial sites have treated 114 patients.

We completed enrolling and treating patients in our completed Phase 2b ixCELL-DCM study in February, 2015. Patients were followed for 12 months for the primary efficacy endpoint of major adverse cardiovascular events, defined as all-cause deaths, all-cause hospitalizations, and unplanned outpatient or emergency department visits for IV treatment of acute worsening heart failure. On March 10, 2016, we announced the trial had met its primary endpoint of reduction in clinical cardiac events and that the incidence of adverse events, including serious adverse events, in patients treated with ixmyelocel-T was no greater than in patients in the placebo group. Patients are now being followed for an additional 12 months for safety. Because the trial met the primary endpoint, patients who had been assigned to the placebo group or randomized to ixmyelocel-T in the double-blind portion of the trial but did not receive ixmyelocel-T will be offered the option to receive treatment.

Production

Cell Manufacturing and Cell Production Components

Our cell-manufacturing facility is located in Cambridge, Massachusetts, is used for U.S. manufacturing and distribution of Carticel, Epicel manufacturing and worldwide distribution and also manufactured MACI for the SUMMIT study conducted for approval in Europe and for a small number of MACI implants following suspension of sales in the EU. The Cambridge facility also houses our research and development function, which is responsible for process development, release assay development, and technology transfers between sites and departments.

We also operate a centralized cell manufacturing facility in Ann Arbor, Michigan. The facility supports the current open label extension of the ixCELL-DCM clinical trial being conducted in the United States and Canada and we believe it has sufficient capacity, with minor modifications, to supply our Phase 3 trial and limited initial commercialization requirements. To treat a significant portion of the United States ischemic DCM patient population we will need to establish and operate larger commercial-scale cell manufacturing facilities. We have reached agreement with the FDA on Chemistry, Manufacturing and Control (CMC) which was completed as part of the Special Protocol Assessment process with the FDA for the Phase 3 REVIVE clinical trial.

Our ixmyelocel-T patient-specific multicellular therapies are manufactured using our proprietary Aastrom Replicell System (ARS) cell manufacturing system. Our manufacturing process is conducted in a highly-automated, fully-closed and rigorously controlled system. Our system is modular and thus both highly scalable and reproducible and is located in a 5,000-square-foot centralized manufacturing facility in Ann Arbor, Michigan. We believe the ARS based production is conducted under cGMP requirements of the FDA and has a current annual capacity to treat up to 1,500 patients. Upon approval we can scale-up to meet demand simply by adding additional ARS modules into existing and new clean rooms.

We have established relationships with various third parties who manufacture and/or supply certain components, equipment, disposable devices and other materials used in our cell manufacturing process to develop our cell products, as well as our final assemblies, component parts, subassemblies and associated spare parts used in the instrumentation platform of our cell production system.

In October 2010, we entered into a contract manufacturing and supply agreement (Supply Agreement) with ATEK Medical, LLC (ATEK) for the manufacture of our proprietary cell cassette for use in our manufacturing process. In November 2011, ATEK was purchased by Vention Medical, Inc. (Vention) and currently operates as a division of Vention. There were no changes to the terms of the Supply Agreement as a result of this purchase.

Pursuant to the terms of the Supply Agreement, we have granted Vention the exclusive right to manufacture our proprietary cell cassette, which includes assembly, labeling, packaging and sterilization. Vention is responsible for obtaining all of our approved components pertaining to the cassettes and we are obligated to order and purchase the cassettes from Vention on an agreed upon schedule and in agreed upon quantities. In addition, we provided Vention with reasonable engineering support to initiate and ramp up manufacturing of the cassettes and expect to supply all manufacturing equipment. We are in the process of renegotiating a longer term supply agreement with Vention.

Research & Development

The bulk of our ongoing research and development activities are focused on exploring methods that improve our ability to efficiently manufacture high quality cell therapy products for patients. We have performed an in depth analysis of the cell culture processes used in the manufacture of Epicel, Carticel, and ixmyelocel-T, and have identified several areas for their potential betterment. Therefore, our research and development program is focused on the many facets of process development for all of our products including, but not limited to, tissue procurement and processing, cell culture surface and media modification, and other process efficiencies.

The bulk of our ongoing research is based on ixmyelocel-T, our unique multicellular product produced from a patient's bone marrow using our proprietary manufacturing system. We have demonstrated in the laboratory that the cells in our therapy are capable of multiple biological activities thought to play a critical role in repairing diseased and damaged tissues. These activities include aspects of tissue remodeling, promotion of angiogenesis and resolution of inflammation. In addition to these properties demonstrated *in vitro*, we have also shown that the therapy increases blood perfusion in both rat and mouse models of CLI. We have conducted preclinical studies designed to further characterize the mechanism of action of our product in the treatment of cardiovascular diseases as well as explore other potential disease states which may benefit from the use of ixmyelocel-T.

In addition, our proprietary cell manufacturing system has demonstrated the capability to produce other types of cells. In the future, we may continue to explore the application of our manufacturing technology for the production of other cell types where there are potential opportunities to collaborate in the development of new cell therapies.

Patents and Proprietary Rights

Our success depends in part on our ability, and the ability of our licensors, to obtain patent protection for our products and processes.

As part of the acquired CTRM business, we acquired a multinational intellectual property estate. The intellectual property estate includes patents and patent applications directed to chondrocyte implants and related technologies. Although we do not own any patents or patent applications relating to Epicel, many of the processes and techniques are trade secrets and would be difficult to replicate without significant investment and time. We do own issued patents directed to the combinations of chondrocytes and collagen membranes used in MACI, which are scheduled to expire in August of 2016 in the U.S. and in August of 2017 abroad. When these patents expire, our opportunity to establish or maintain product revenue could be substantially reduced or eliminated. See "Risk Factors - Risks Related to Intellectual Property" below for additional information. In certain foreign countries, selected patent rights covering Carticel are scheduled to expire in 2022.

We also own a broadly filed trademark portfolio with registrations for Carticel, MACI, and Epicel.

The processes and technologies related to ixmyelocel-T include 3 issued United States patents. These patents are material patents that protect our cellular therapy.

Certain patent equivalents to the United States patents have also been issued in other jurisdictions including Australia, Japan, and Canada, and under the European Patent Convention. Our most significant patent that protects the composition of the cellular therapy directly, "Mixed cell populations for tissue repair and separation technique for cell processing" (U.S. Patent 7,871,605), was issued in January 2011 and will expire in 2029. A divisional application of 7,871,605 (U.S. Patent 8,158,122) for administration of this composition to patients was issued in April 2012 and will expire in 2027. A second divisional application of 7,871,605 (U.S. Patent 8,394,631) directed to the methods of manufacture of our cell compositions was issued in March 2013 and will expire in 2027. In addition, we have 2 pending United States patent applications and equivalent applications in certain other countries claiming other aspects of our cell products and manufacturing processes. We own all of these patents, Patents that protected our automated bioreactor device and culture system expired in 2015, but we will continue to rely on trade secrets and un-patentable know-how.

In 2007, the use of ixmyelocel-T for the treatment of DCM received an Orphan Drug Designation from the FDA, which provides seven years of market exclusivity, should ixmyelocel-T receive FDA approval for this indication. The validity and breadth of claims in medical technology patents involve complex legal and factual questions and, therefore, may be highly uncertain. No assurance can be given that any patents based on pending patent applications or any future patent applications by us, or our licensors, will be issued, that the scope of any patent protection will exclude competitors or provide competitive advantages to us, that any of the patents that have been or may be issued to us or our licensors will be held valid if subsequently challenged or that others will not claim rights in or ownership of the patents and other proprietary rights held or licensed by us. Furthermore, there can be no assurance that others have not developed or will not develop similar products, duplicate any of our products or design around any patents that have been or may be issued to us or our licensors. Since patent applications in the United States are maintained in secrecy until they are published 18 months after filing, we also cannot be certain that others did not first file applications for inventions covered by our and our licensors' pending patent applications, nor can we be certain that we will not infringe any patents that may be issued to others on such applications.

We rely on certain licenses granted by a number of third parties, including Sanofi and the University of Michigan for certain patent rights. If we breach such agreements or otherwise fail to comply with such agreements, or if such agreements expire or are otherwise terminated, we may lose our rights in such patents.

We also rely on trade secrets and un-patentable know-how that we seek to protect, in part, by confidentiality agreements. It is our policy to require our employees, consultants, contractors, manufacturers, outside scientific collaborators and sponsored researchers and other advisors to execute confidentiality agreements upon the commencement of employment or consulting relationships with us. These agreements provide that all confidential information developed or made known to the individual during the course of the individual's relationship with us is to be kept confidential and not disclosed to third parties except in specific limited circumstances. We also require signed confidentiality or material transfer agreements from any company that is to receive our confidential information. In the case of employees, consultants and contractors, the agreements generally provide that all inventions conceived by the individual while rendering services to us shall be assigned to us as the exclusive property of Vericel. There can be no assurance, however, that these agreements will not be breached, that we would have adequate remedies for any breach, or that our trade secrets or un-patentable know-how will not otherwise become known or be independently developed by competitors.

Our success will also depend in part on our ability to develop additional commercially viable products without infringing the proprietary rights of others. We do not believe any of our approved products or our currently contemplated products or processes infringe any existing valid issued patent. However, the results of patent litigation are unpredictable, and no assurance can be given that patents do not exist or could not be filed which would have an adverse effect on our ability to market our products or maintain our competitive position with respect to our products. If our technology components, designs, products, processes or other subject matter are claimed under other existing United States or foreign patents, or are otherwise protected by third-party proprietary rights, we may be subject to infringement actions. In such event, we may challenge the validity of such patents or other proprietary rights or we may be required to obtain licenses from such companies in order to develop, manufacture or market our products. There can be no assurances that we would be able to obtain such licenses or that such licenses, if available, could be obtained on commercially reasonable terms. Furthermore, the failure either to develop a commercially viable alternative or obtain such licenses could result in delays in marketing our proposed products or the inability to proceed with the development, manufacture or sale of products requiring such licenses, which could have a material adverse effect on our business, financial condition and results of operations. If we are required to defend ourselves against charges of patent infringement or to protect our proprietary rights against third parties, substantial costs will be incurred regardless of whether we are successful. Such proceedings are typically protracted with no certainty of success. An adverse outcome could subject us to significant liabilities to third parties and force us to curtail or cease our development and sale of our products and processes.

Certain of our licensors' research has been funded in part by the Department of Commerce and by a Small Business Innovation Research Grant obtained from the Department of Health and Human Services. As a result of such funding, the United States government has certain rights in the technology developed with such funding. These rights include a non-exclusive, fully paid-up, worldwide license under such inventions for any governmental purpose. In addition, the United States government has the right to require us to grant an exclusive license under any of such inventions to a third party if the United States government determines that: (i) adequate steps have not been taken to commercialize such inventions; (ii) such action is necessary to meet public health or safety needs; or (iii) such action is necessary to meet requirements for public use under federal regulations. Additionally, under the federal Bayh-Dole Act, a party which acquires an exclusive license for an invention that was partially funded by a federal research grant is subject to the following government rights: (i) products using the invention which are sold in the United States are to be manufactured substantially in the United States, unless a waiver is obtained; (ii) the government may force the granting of a license to a third party who will make and sell the needed product if the licensee does not pursue reasonable commercialization of a needed product using the invention; and (iii) the United States government may use the invention for its own needs.

Sales and Marketing

Both our marketed and development stage products are specialty products with focused physician and institutional call points. The U.S. Carticel commercial organization is comprised of approximately 28 employees, including Cell Therapy Specialists and Regional Sales Directors. The target audience is a small (well under 1,000) set of sports medicine orthopedic surgeons. We expect to utilize the same sales force for MACI.

Reimbursement coverage for Carticel is widespread. The 15 largest payers, representing approximately 98% of commercial lives, have a formal medical policy that allows treatment with Carticel within labeled indications. These 15 plans represent approximately 132 million covered lives and include the top five national plans—WellPoint, United Healthcare, Aetna, CIGNA and Humana.

US Bioservices Corporation (USB) is the exclusive distributor of Carticel in the United States. USB purchases and takes title to Carticel upon shipment of the product. USB works with the payers on behalf of patients and surgeons to ensure medical coverage and to obtain reimbursement for Carticel implantation procedures. We retain all responsibility for shipment of the product to the

surgical suite and may have certain indemnification obligations to USB. By mid-year 2016 we expect to improve our distributor model through an extensive request for proposal process, which includes USB.

Sales of Epicel are supported by four Cell Therapy Specialists. This represents an expansion over past support levels. Since there are approximately 128 specialized burn centers in the U.S. increasing coverage to the majority of the target audience should be feasible with only a small number of incremental Cell Therapy Specialists.

If and when ixmyelocel-T is approved, we anticipate augmenting our existing sales and marketing organization to cover the expanded physician audience. The target physician population will likely be heart failure specialists and interventional cardiologists in secondary and tertiary cardiac facilities, a specialty audience which can be covered by a modest sized sales force. However, we intend to explore other options, including partnerships, to help minimize costs and increase penetration if and when the product is commercialized.

Government Regulation

Our research and development activities and the manufacturing and marketing of our products are subject to the laws and regulations of governmental authorities in the United States and other countries in which our products will be marketed. Specifically, in the United States, the FDA regulates drugs, biologics and medical devices and requires new product approvals or clearances to assure safety and effectiveness of these products. Governments in other countries have similar requirements for testing and marketing. In the United States, in addition to meeting FDA regulations, we are also subject to other federal laws, such as the Occupational Safety and Health Act and the Environmental Protection Act, as well as certain state laws.

While some human cell or tissue products that are intended for implantation, transplantation, infusion, or transfer into a human recipient are regulated as human cell, tissue, and cellular and tissue-based products (HCT/Ps) and do not require the FDA's premarket review, if these cell or tissue products do not meet the FDA's requirements for regulation as an HCT/P they require premarket review and a marketing authorization. The type of marketing authorization required depends on how the product is regulated by the FDA. With the exception of Epicel (a medical device), our cell products are regulated as biological products that require an approved BLA to be marketed in the U.S. Commercial production of these products needs to occur in FDA-registered facilities in compliance with cGMP requirements for biologics. Epicel is a humanitarian use medical device that has an approved HDE application.

Regulatory Process

The FDA regulates biologics under the Federal Food, Drug and Cosmetic Act (FFDCA) and the Public Health Service Act, and their implementing regulations. Obtaining approval of a BLA for new biological products is a lengthy process leading from development of a new product through preclinical and clinical testing. This process takes a number of years and the expenditure of significant resources. There can be no assurance that our product candidates will ultimately receive approval.

The FFDCA and other federal and state statutes and regulations govern the research, testing, manufacture, safety, labeling, storage, record-keeping, approval, distribution, use, adverse event reporting, advertising and promotion of our products. Noncompliance with applicable requirements can result in civil penalties, recall, injunction or seizure of products, refusal of the government to approve our product approval applications or to allow us to enter into government supply contracts, withdrawal of previously approved applications and criminal prosecution.

Product Approval

In order to obtain FDA license, or approval of, a new biological product, sponsors must submit proof of safety, purity and potency, or effectiveness. In most cases, such proof entails extensive nonclinical, also known as preclinical studies in animal models and well-controlled clinical trials in human subjects. The testing, preparation of necessary applications and processing of those applications by the FDA is expensive, may take several years to complete and could have an uncertain outcome. The FDA regulatory review and approval process is complex and can result in request for additional data, increase development cost, time to market delays, or preclude us from bringing to market new products. The FDA may also require post-marketing studies and risk-management plans as condition to approval. These requirements will add to the cost of regulatory compliance and the cost to sell our products, due to complex distribution and restricted commercial operations. Product approvals may be withdrawn if compliance with applicable regulations is not maintained or if safety issues are identified during routine safety monitoring following commercialization. For patented technologies, product development and the regulatory review/ approval process can materially reduce the period during which we will have the exclusive right to exploit such technologies. Regulatory exclusivity may offer some additional protection.

Adequate and well-controlled clinical studies are required by the FDA for approval of a BLA. To conduct a clinical trial the study sponsor is required to submit an Investigational New Drug (IND) application including the study protocol prior to commencing human clinical trials. The submission must be supported by data, typically including the results of nonclinical, manufacturing and laboratory testing. The conduct of the nonclinical tests must comply with Good Laboratory Practice (GLP), and GMP requirements. Long term nonclinical testing, such as animal reproductive toxicity and carcinogenicity, is conducted if warranted and is submitted to the IND to support a future BLA. Following the initial submission of the IND, the FDA has 30 days to review the application and raise safety and other clinical trial issues. If questions or objections are not raised within that period, the clinical trial may commence according to the investigational protocol submitted to the FDA and following Institutional Review Board (IRB) approvals for each of the clinical sites where the study will be conducted. Protocol amendments need to be submitted and approved by FDA prior to implementation. We have submitted several INDs for our cell products, and we have conducted clinical trials under these INDs.

Carticel, MACI and ixmyelocel-T are regulated by the FDA as biologics. For products that are regulated as biologics, the FDA requires: (i) nonclinical animal testing to establish a starting dose for initiation of clinical trials in humans; (ii) submission to the FDA of an IND application, which must become effective prior to the initiation of human clinical trials; (iii) adequate and well-controlled clinical trials to demonstrate the safety, purity and potency, or effectiveness, of the product for its intended use; (iv) submission to the FDA of a BLA; and (v) review and approval of the BLA as well as pre-approval inspections of the manufacturing facility by the FDA.

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

- Phase 1—The biological product is initially tested for safety and tolerability. In the case of biological products and those for severe or life-threatening diseases, the initial human testing is generally conducted in patients. These trials may also provide early evidence on effectiveness.

- Phase 2—These trials are conducted in a limited number of subjects in the target population to determine a safe and effective dosage to evaluate in Phase 3 and to identify possibly related adverse effects and safety risks. Multiple Phase 2 clinical trials may be conducted by the sponsor to obtain information prior to beginning larger and more expensive Phase 3 clinical trials.

- Phase 3—Phase 3 trials are undertaken to provide evidence of clinical efficacy and to further evaluate dosage, potency, and safety in an expanded patient population at multiple clinical trial sites. Phase 3 studies are performed after preliminary evidence suggesting effectiveness of the product has been obtained, and are intended to establish the overall benefit-risk relationship of the investigational product, and to provide an adequate basis for product approval and labeling.

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

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

Phase 1, Phase 2, and Phase 3 clinical trials may not be completed successfully or within any specified period, or at all. Regulatory authorities, a data safety monitoring board or the sponsor may suspend a clinical trial at any time on various grounds, including a finding that the participants are being exposed to an unacceptable health risk. Similarly, an Institutional Review Board (IRB) can suspend or terminate approval of a clinical trial at its institution if the clinical trial is not being conducted in accordance with the IRB’s requirements or if the biological product has been associated with unexpected serious harm to patients.

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

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

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

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

After completion of the required clinical testing, a BLA is prepared and submitted to the FDA. FDA review and approval of the BLA is required before marketing of the product may begin in the United States. The BLA must include the results of all nonclinical, clinical, and other testing and a compilation of data relating to the quality and manufacture of the product, including, chemistry, manufacture, and controls, to demonstrate the safety, purity and potency, or efficacy, of the product based on these results. The cost of preparing and submitting a BLA is substantial. Under federal law, the submission of most BLAs is subject to an application user fee, as well as annual product and establishment user fees, which may total several million dollars and are increased annually.

The FDA has 60 days from its receipt of a BLA to determine whether the application will be accepted for filing based on the agency's threshold determination that it is sufficiently complete to permit substantive review. Once the submission is accepted for filing, the FDA begins an in-depth review. The FDA has agreed to certain performance goals in the review of BLAs. Most such applications for standard review biologics are reviewed within ten months from the date the application is accepted for filing. Although FDA often meets its user fee performance goals, the FDA can extend these timelines as warranted. FDA review goals are to review 90 percent of BLA's within 10 months. The FDA usually refers applications for novel biologics, or biologics which present difficult questions of safety or efficacy, to an advisory committee-typically a panel that includes clinicians and other experts-for review, evaluation, and a recommendation as to whether the application should be approved. The FDA is not bound by the recommendation of an advisory committee, but it generally follows such recommendations. Before approving a BLA, the FDA will typically inspect one, or more, clinical sites to assure compliance with GCP. Additionally, the FDA will inspect the facility or the facilities at which the biologic is manufactured. The FDA will not approve the product unless it verifies that compliance with requirements for cGMP is satisfactory and the BLA contains data that provide substantial evidence that the biologic is safe, pure and potent, or effective, for the intended use.

For certain products, the FDA also will not approve the product if the manufacturer is not in compliance with the Good Tissue Practices (GTPs). These are FDA regulations that govern the methods used in, and the facilities and controls used for, the manufacture of human cells, tissues, and cellular and tissue based products (HCT/Ps), which are human cells or tissue intended for implantation, transplant, infusion, or transfer into a human recipient. The primary intent of the GTP requirements is to ensure that cell and tissue based products are manufactured in a manner designed to prevent the introduction, transmission and spread of communicable disease. FDA regulations also require tissue establishments to register and list their HCT/Ps with the FDA and, when applicable, to evaluate donors through screening and testing. To assure GMP, GTP and GCP compliance, an applicant must incur significant expenditure of time, money and effort in the areas of training, record keeping, production, and quality control.

After the FDA evaluates the BLA and the manufacturing facilities, it issues either an approval letter or a complete response letter. A complete response letter means that the BLA will not be approved in its present form and generally outlines the deficiencies in the submission. Complete responses may require substantial additional testing, or information, in order for the FDA to reconsider the application. If and when those deficiencies have been addressed to the FDA's satisfaction, the FDA will issue an approval

letter. The FDA's regulations provide that the agency will review such resubmissions in two or six months depending on the type of information included. The FDA approval is never guaranteed, and the FDA may refuse to approve a BLA if the regulatory requirements are not satisfied.

An approval letter authorizes commercial marketing of the biologic with specific prescribing information for specific indications. The approval for a biologic may be significantly more limited than requested in the application, including limitations on the specific diseases and dosages or the indications for use, which could restrict the commercial value of the product. The FDA may also require that certain contraindications, warnings, or precautions be included in the product labeling. In addition, as a condition of BLA approval, the FDA may require a risk evaluation and mitigation strategy (REMS) to help ensure that the benefits of the biologic outweigh the potential risks. REMS can include medication guides, communication plans for healthcare professionals, and elements to assure safe use (ETASU). ETASU can include, but are not limited to, special training or certification for prescribing or dispensing, dispensing only under certain circumstances, special monitoring, and the use of patient registries. The requirement for a REMS or use of a companion diagnostic with a biologic can materially affect the potential market and profitability of the biologic. Moreover, product approval may require, as a condition of approval, substantial post-approval testing and surveillance to monitor the biologic's safety or efficacy. Once granted, product approvals may be withdrawn if compliance with regulatory requirements and standards is not maintained or problems are identified following initial marketing.

Under current requirements, facilities manufacturing biological products for commercial distribution must be registered with the FDA. To accomplish this, an establishment registration must be filed with the FDA. In addition to the preclinical studies and clinical trials, the BLA includes a description of the facilities, equipment and personnel involved in the manufacturing process. A biologics license, which is the product's approval, is granted on the basis of inspections of the applicant's facilities in which the primary focus is on compliance with cGMP and the ability to consistently manufacture the product in the facility in accordance with the BLA. If the FDA finds the results of the inspection unsatisfactory, it may decline to approve the BLA, resulting in a delay in production of products.

Humanitarian Device Exemption

Unless an exemption applies, each medical device commercially distributed in the United States requires either a substantial equivalence determination under a premarket notification submission pursuant to Section 510(k) of the FFDCA, or an approval of a premarket approval application (PMA). The FDA provides an incentive for the development of certain devices intended to benefit patients by treating or diagnosing a disease or condition that affects or is manifested in fewer than 4,000 individuals in the United States per year. These devices receive a HUD designation and may be eligible for marketing approval under an HDE application. An HDE application is a premarket approval application that seeks an HDE from the effectiveness requirement that would otherwise apply to the application. FDA approval of an HDE application authorizes the applicant to market the device.

To obtain approval for a HUD, an HDE application is submitted to the FDA. An HDE application is similar in both form and content to a PMA application in that the applicant must demonstrate a reasonable assurance of safety, but in an HDE application, the applicant seeks an exemption from the PMA requirement of demonstrating a reasonable assurance of effectiveness. An HDE application is not required to contain the results of scientifically valid clinical investigations demonstrating that the device is effective for its intended purpose. The application, however, must contain sufficient information for the FDA to determine that the device does not pose an unreasonable or significant risk of illness or injury, and that the probable benefit to health outweighs the risk of injury or illness from its use, taking into account the probable risks and benefits of currently available devices or alternative forms of treatment. Additionally, the applicant must demonstrate that no comparable devices are available to treat or diagnose the disease or condition, and that they could not otherwise bring the device to market.

Except in certain circumstances, HUDs approved under an HDE cannot be sold for an amount that exceeds the costs of research and development, fabrication, and distribution of the device (i.e., for profit). Under the current HDE provision, as amended by FDASIA, a device is eligible to be sold for profit after receiving HDE approval if the device is intended for the treatment or diagnosis of a disease or condition that occurs in pediatric patients or in a pediatric subpopulation, and such device is labeled for use in pediatric patients or in a pediatric subpopulation in which the disease or condition occurs; or is intended for the treatment or diagnosis of a disease or condition that does not occur in pediatric patients or that occurs in pediatric patients in such numbers that the development of the device for such patients is impossible, highly impracticable, or unsafe. If the FDA makes a determination that a HUD meets the eligibility criteria, the HUD is permitted to be sold for profit after receiving HDE approval as long as the number of devices distributed in any calendar year does not exceed the ADN for the device. The holder of the HDE must immediately notify the FDA if the number of devices distributed during a calendar year exceeds the ADN. The ADN is determined by the FDA when the agency approves the original HDE application; or when the agency approves an HDE supplement for an HDE approved before the enactment of FDASIA if the HDE holder seeks a determination for the HUD in an HDE supplement based upon the profit-making eligibility criteria, and the FDA determines that the HUD meets the eligibility criteria.

Regulation of Combination Products in the United States

Certain products may be comprised of components that would normally be regulated under different types of regulatory authorities and frequently by different centers at the FDA. These products are known as combination products. Specifically, under regulations issued by the FDA, a combination product may be:

- A product comprised of two or more regulated components that are physically, chemically, or otherwise combined or mixed and produced as a single entity;
- Two or more separate products packaged together in a single package or as a unit and comprised of drug and device products, device and biological products, or biological and drug products;
- A drug, or device, or biological product packaged separately that according to its investigational plan or proposed labeling is intended for use only with an approved individually specified drug, or device, or biological product where both are required to achieve the intended use, indication, or effect and where upon approval of the proposed product the labeling of the approved product would need to be changed, e.g., to reflect a change in intended use, dosage form, strength, route of administration, or significant change in dose; or
- Any investigational drug, or device, or biological product packaged separately that according to its proposed labeling is for use only with another individually specified investigational drug, device, or biological product where both are required to achieve the intended use, indication, or effect.

Under the FFDCA, the FDA is charged with assigning a center with primary jurisdiction, or a lead center, for review of a combination product. That determination is based on the "primary mode of action" of the combination product. Thus, if the primary mode of action of a device-biologic combination product is attributable to the biologic product, the FDA center responsible for premarket review of the biologic product would have primary jurisdiction for the combination product. The FDA has also established an Office of Combination Products to address issues surrounding combination products and provide more certainty to the regulatory review process. That office serves as a focal point for combination product issues for agency reviewers and industry. It is also responsible for developing guidance and regulations to clarify the regulation of combination products, and for assignment of the FDA center that has primary jurisdiction for review of combination products where the jurisdiction is unclear or in dispute.

FDA Post-Approval Requirements

Maintaining substantial compliance with applicable federal, state, local, and foreign statutes and regulations requires the expenditure of substantial time and financial resources. Rigorous and extensive FDA regulation of biological products and devices continues after approval, particularly with respect to cGMP. We will rely, and expect to continue to rely, on third parties to manufacture or supply certain components, equipment, disposable devices and other materials used in our manufacturing process for any products that we commercialize or may commercialize. Manufacturers of our products are required to comply with applicable requirements in the cGMP regulations, including quality control and quality assurance and maintenance of records and documentation. We cannot be certain that we or our present or future suppliers will be able to comply with the cGMP and other FDA regulatory requirements. Other post-approval requirements applicable to biological products include reporting of cGMP deviations that may affect the identity, potency, purity and overall safety of a distributed product, record-keeping requirements, monitoring and reporting of adverse effects, reporting updated safety and efficacy information, periodic reporting requirements and complying with electronic record and signature requirements. Similarly, there are a number of post-marketing requirements for devices, including medical device reporting regulations that require manufacturers to report to the FDA if a device may have caused or contributed to a death or serious injury or malfunctioned in a way that would likely cause or contribute to a death or serious injury if it were to recur; and corrections and removal reporting regulations that require manufacturers to report to the FDA field corrections and product recalls or removals if undertaken to reduce a risk to health posed by the device or to remedy a violation of the FFDCA that may present a risk to health. Additionally, devices must comply with the cGMP requirements that are set forth in the FDA's Quality System Regulation (QSR).

After a BLA is approved, the biological product also may be subject to official lot release. As part of the manufacturing process, the manufacturer is required to perform certain tests on each lot of the product before it is released for distribution. If the product is subject to official release by the FDA, the manufacturer submits samples of each lot of product to the FDA together with a release protocol showing a summary of the history of manufacture of the lot and the results of all of the manufacturer's tests performed on the lot. The FDA also may perform certain confirmatory tests on lots of some products, such as viral vaccines, before releasing the lots for distribution by the manufacturer. In addition, the FDA conducts laboratory research related to the regulatory standards on the safety, purity, potency, and effectiveness of biological products. After approval of biologics, manufacturers must

address any safety issues that arise, are subject to recalls or a halt in manufacturing, and are subject to periodic inspection after approval.

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

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

U.S. Patent Term Restoration and Marketing Exclusivity

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

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

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

Biosimilars

The Patient Protection and Affordable Care Act, or the Affordable Care Act, includes the Biologics Price Competition and Innovation Act of 2009. That Act created an approval pathway authorizing the FDA to approve biosimilars and interchangeable biosimilars. Biosimilars are biological products which are "highly similar" to a previously approved biologic product or "reference product" and for which there are no clinically meaningful differences between the biosimilar product and the reference product in terms of the safety, purity, and potency as shown through analytical studies, animal studies and a clinical study or studies. For the FDA to approve a biosimilar product as interchangeable with a reference product, the agency must find that the biosimilar product can be expected to produce the same clinical results as the reference product and, for products administered multiple times, the biosimilar and the reference biologic may be switched after one has been previously administered without increasing safety risks or risks of diminished efficacy relative to exclusive use of the reference biologic. However, complexities associated with the larger, and often more complex, structures of biological products, as well as the process by which such products are manufactured, pose significant hurdles to implementation, which are still being worked out by the FDA. A reference biologic is granted 12 years of exclusivity from the time of first licensure of the reference product.

Pediatric Research Equity Act

Under the Pediatric Research Equity Act, or PREA, a BLA or BLA supplement must contain data to assess the safety and effectiveness of the biological product for the claimed indications in all relevant pediatric subpopulations and to support dosing and administration for each pediatric subpopulation for which the product is safe and effective, for a new product, new indication or dosage form. The intent of PREA is to compel sponsors whose products have pediatric applicability to study those products in pediatric populations, rather than ignoring pediatric indications for adult indications that could be more economically desirable. FDA may grant deferrals for submission of data or full or partial waivers. By its terms, PREA does not apply to any biological product for an indication for which orphan designation has been granted, unless the FDA issues regulations saying otherwise. Because the FDA has not issued any such regulations, submission of a pediatric assessment is not required for an application to market a product for an orphan-designated indication, and waivers are not needed at this time. However, if only one indication for a product has orphan designation, a pediatric assessment may still be required for any applications to market that same product for the non-orphan indication(s).

Advertising and Promotion

Once an FDA-regulated product is approved, the product will be subject to continuing post-approval regulatory requirements. For instance, the FDA closely regulates the post-approval marketing and promotion of biologics and devices including standards and regulations for direct-to-consumer advertising and promotional activities involving the internet. The agency also prohibits the off-label promotion of biologics and devices, and provides guidance on industry-sponsored scientific and educational activities to ensure that these activities are not promotional. Failure to comply with these requirements can result in significant penalties, including the issuance of warning letters directing a company to correct deviations from FDA standards, a requirement that future advertising and promotional materials be pre-cleared by the FDA, and federal and state civil and criminal investigations and prosecutions.

Biologics and devices may be marketed only for the approved or cleared indications and may only make claims for the product that are covered by the approval or clearance. For BLAs, changes to some of the conditions established in an approved application, including changes in indications, labeling, or manufacturing processes or facilities, require submission and FDA approval of a new BLA or BLA supplement before the change can be implemented. A BLA supplement for a new indication typically requires clinical data similar to that in the original application, and the FDA uses the same procedures and actions in reviewing BLA supplements as it does in reviewing BLAs. Similarly, changes to approved or cleared devices may require FDA's premarket review.

While doctors are free to prescribe any product approved by the FDA for any use, a company can only make claims relating to safety and effectiveness of a biological product or device that are consistent with the FDA approval or clearance, and the company is allowed to actively market and promote a biological product or device only for the particular use and treatment approved or cleared by the FDA. In addition, any claims we make for our products in advertising or promotion must be appropriately balanced with important safety information and otherwise be adequately substantiated. Failure to comply with these requirements can result in adverse publicity, warning letters, corrective advertising, injunctions and potential civil and criminal penalties.

Orphan Drug

Under the Orphan Drug Act, the FDA may grant orphan drug designation to biologics intended to treat a rare disease or condition—generally a disease or condition that affects fewer than 200,000 individuals in the United States, or affects more than 200,000 individuals in the United States and for which there is no reasonable expectation that the cost of developing and making available in the United States a drug for such disease or condition will be recovered from sales of such drug. Orphan drug designation must be requested before submitting a BLA. After the FDA grants orphan drug designation, the generic identity of the biologic and its potential orphan use are disclosed publicly by the FDA. Orphan drug designation does not necessarily convey any advantage in, or shorten the duration of, the regulatory review and approval process. The first BLA applicant to receive FDA approval for a particular product to treat a particular disease with FDA orphan drug designation is entitled to a seven-year exclusive marketing period in the United States for that product, for that indication. During the seven-year exclusivity period, the FDA may not approve any other applications to market the same drug for the same disease, except in limited circumstances, such as a showing of clinical superiority to the product with orphan drug exclusivity. Orphan drug exclusivity, which would most likely run concurrently with the exclusivity, if any, received from the time of first licensure of a reference product, does not prevent the FDA from approving a different biologic for the same disease or condition, or the same biologic for a different disease or condition. Among the other benefits of orphan drug designation are tax credits for certain research and a waiver of the BLA application user fee.

The Food and Drug Administration Safety and Innovation Act (FDASIA) added Section 529 to the Federal Food, Drug, and Cosmetic Act. Pursuant to that provision, FDA will award priority review vouchers to sponsors of rare pediatric disease product

applications that meet certain criteria after approval of the application. The priority review voucher may be used by the sponsor or sold/transferred to another.

Anti-Kickback and False Claims Laws

In the United States, the research, manufacturing, distribution, sale and promotion of biological products and devices are subject to regulation by various federal, state and local authorities in addition to the FDA, including the Centers for Medicare & Medicaid Services, other divisions of the U.S. Department of Health and Human Services (e.g., the Office of Inspector General), the U.S. Department of Justice, state Attorneys General, and other federal, state and local government agencies. For example, sales, marketing and scientific/educational grant programs must comply with the Anti-Kickback Statute, as amended, the False Claims Act, as amended, the privacy regulations promulgated under the Health Insurance Portability and Accountability Act, or HIPAA, and similar state laws. If products are made available to authorized users of the Federal Supply Schedule of the General Services Administration, additional laws and requirements apply. All of these activities are also potentially subject to federal and state consumer protection and unfair competition laws.

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

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

There are also an increasing number of state laws that require manufacturers to make reports to states on pricing and marketing information. Many of these laws contain ambiguities as to what is required to comply with the laws. In addition, a provision of the Patient Protection and Affordable Care Act, referred to as the Sunshine Act, requires biological product manufacturers to track and report to the federal government certain payments or other transfers of value made to physicians and teaching hospitals made in the previous calendar year. These laws may affect our sales, marketing, and other promotional activities by imposing administrative and compliance burdens on us. In addition, given the lack of clarity with respect to these laws and their implementation, our reporting actions could be subject to the penalty provisions of the pertinent state and federal authorities.

International Regulation

In addition to regulations in the United States, a variety of foreign regulations govern clinical trials, commercial sales, and distribution of product candidates. The approval process varies from country to country and the time to approval may be longer or shorter than that required for FDA approval.

Pharmaceutical Coverage, Pricing, and Reimbursement

In the United States and other countries, sales of any products for which we receive regulatory approval for commercial sale will depend in part on the availability of reimbursement from third-party payers, including government health administrative authorities, managed care providers, private health insurers, and other organizations. Third-party payers are increasingly examining the medical necessity and cost effectiveness of medical products and services in addition to safety and efficacy and, accordingly, significant uncertainty exists as to the reimbursement status of newly approved therapeutics. Third-party reimbursement adequate to enable us to realize an appropriate return on our investment in research and product development may not be available for our products.

Competitive Environment For Cell Therapy and Regenerative Medicine

The biotechnology and medical device industries are characterized by rapidly evolving technology and intense competition. Our competitors include major multinational medical device companies, pharmaceutical companies, biotechnology companies and stem cell companies operating in the fields of tissue engineering, regenerative medicine, cardiac, vascular, orthopedics and neural medicine. Many of these companies are well-established and possess technical, research and development, financial, and sales and marketing resources significantly greater than ours. In addition, many of our smaller potential competitors have formed strategic collaborations, partnerships and other types of joint ventures with larger, well established industry competitors that afford these companies potential research and development and commercialization advantages in the technology and therapeutic areas currently being pursued by us. Academic institutions, governmental agencies and other public and private research organizations are also conducting and financing research activities which may produce products directly competitive to those being commercialized by us. Moreover, many of these competitors may be able to obtain patent protection, obtain FDA and other regulatory approvals and begin commercial sales of their products before us.

For patients diagnosed with cartilage defects, there are several treatment options, including arthroscopic debridement/chondroplasty, marrow stimulation techniques such as microfracture, osteochondralautografts for smaller cartilage injuries, allografts, and autologous chondrocyte implants for larger, more complex injuries.

The main competitor for Carticel in the U.S. is the microfracture procedure. Microfracture is a minimally invasive procedure that can be performed during the initial arthroscopic procedure. Short term results are generally considered good in smaller cartilage defects. Other competitive treatments in the U.S. include autograft/allograft procedures and a juvenile donor-derived allograft product DeNovo NT from Zimmer Holdings Inc. (Zimmer).

Carticel is the only FDA-approved ACI product on the market in the United States. We are aware of two ACI products in development. Histogenics Corporation began a Phase 3 study of its Neocart implant in February 2010. Neocart is an autologous chondrocyte tissue implant under development for treatment of symptomatic articular cartilage lesions on the femur. Aesculap Biologics, LLC initiated a Phase 3 study in 2014 of NovoCart 3D®, a matrix induced autologous chondrocyte product designed to repair articular cartilage defects of the knee.

The competitive treatment alternatives to MACI in the EU are the same as those for Carticel in the U.S., including debridement/chondroplasty, microfracture, and osteochondralautografts. Although there is very little use of allografts or allograft-derived products, the competitive product environment is much more robust. Competitors include microfracture augmentation products such as ChondroGide® from Geistlich Pharma AG and direct ACI competitors including ChondroCelect® from TiGenix NV.

Patients suffering catastrophic burns over a significant portion of total body surface area have few options for permanent skin coverage. When undamaged skin is available, a procedure known as meshed split-thickness auto-grafting can be considered. However, this option becomes less viable as the percentage of total body surface area burn increases. Epicel is a lifesaving therapy and represents the only option for patients with TBSA burns greater than 70%. In lower TBSA (<50%) Avita Medical is developing ReCell® for the U.S. market for patients with TBSA burns lower than 50%, with a late stage trial and project approval expected in 2017. ReCell is an on-site preparation of autologous epithelial cells suspension.

We are investigating ixmyelocel-T, an autologous cell therapy, in ischemic dilated cardiomyopathy (ischemic heart failure) and recently completed the blinded portion of the Phase 2b clinical trial and announced that the trial had met its primary endpoint of reduction in clinical cardiac events and that incidence of adverse events, including serious adverse events, in patients treated with ixmyelocel-T was comparable to patients in the placebo group. Competitor cell (autologous and allogeneic) and gene therapies are currently under clinical development in Phases 1, 2 and 3 in heart failure patients. Examples are, Mesoblast Ltd., which is conducting a Phase 3 trial with allogeneic cell therapy and Cardio3 Biosciences which completed enrollment in an EU based Phase

3 trial with a bone marrow derived autologous therapy with stated plans to initiate a U.S. Phase 3 trial. Gene therapies are being evaluated in Phase 2 trials by Juventas Therapeutics, Inc. and Celladon Corporation.

Our potential commercial products address a broad range of existing and emerging therapeutic markets, in which cell-based therapy is a new and as of yet, unproven, commercial strategy. In a large part, we face primary competition from existing medical devices and drug products. Some of our competitors have longer operating histories and substantially greater resources. These include companies such as Arthrex Inc. (Arthrex), Zimmer, Baxter International, Inc. (Baxter), Biomet, Inc., Johnson & Johnson, Inc. (Johnson & Johnson), Medtronic, Inc. (Medtronic), and others.

In the general area of cell-based therapies, we potentially compete with a variety of companies, most of whom are specialty medical products or biotechnology companies. Some of these, such as Arthrex and Zimmer, Baxter, Johnson & Johnson, Medtronic and Miltenyi Biotec Inc. are well-established and have substantial technical and financial resources compared to ours. However, as cell-based products are only just emerging as viable medical therapies, many of our most direct competitors are smaller biotechnology and specialty medical products companies. These include Ocata Therapeutics, Inc. (formerly Advanced Cell Technology, Inc.), Cytomedix, Inc. (formerly Aldagen, Inc.), Arteriocyte Medical Systems, Inc., Athersys, Inc., Cytori Therapeutics, Inc., International Stem Cell Corporation, Neostem, Inc., Terumo Medical Corporation (formerly Harvest Technologies Corporation), Mesoblast Ltd., Osiris Therapeutics, Inc., Pluristem, Inc. Stem Cells, Inc., Tengion, Inc., and others.

Employees

As of December 31, 2015, we employed approximately 190 full-time employees. A significant number of our management and professional employees have had prior experience with pharmaceutical, biotechnology or medical product companies. None of our employees are covered by collective bargaining agreements, and management considers relations with our employees to be good.

Executive Officers

The following table presents our executive officers and key employees and their respective ages and positions as of December 31, 2015:

Name	Position	Age	Executive Officer Since
Dominick C. Colangelo (1)	President and Chief Executive Officer	53	2013
Daniel R. Orlando (1)	Chief Operating Officer	50	2012
David Recker, MD	Chief Medical Officer	58	2013
Gerard Michel (1)	Chief Financial Officer & Vice President of Corporate Development	52	2014
Ross Tubo, PhD	Chief Scientific Officer	56	2014

(1) Denotes Executive Officer

Dominick C. Colangelo — Mr. Colangelo joined Vericel Corporation in 2013 with more than twenty years of executive management and corporate development experience in the biopharmaceutical industry, including nearly a decade with Eli Lilly and Company. Most recently, he was President and Chief Executive Officer of Promedior, Inc. from 2009 to 2012. During his career, he has held a variety of executive positions of increasing responsibility in product development, pharmaceutical operations, sales and marketing, and corporate development. He has extensive experience in the acquisition, development and commercialization of therapies to treat fibrovascular, metabolic and cardiovascular diseases. During his tenure at Eli Lilly and Company, he held positions as Director of Strategy and Business Development for Lilly's Diabetes Product Group and also served as a founding Managing Director of Lilly Ventures. Mr. Colangelo received his B.S.B.A. in Accounting, Magna Cum Laude, from the State University of New York at Buffalo and a J.D. degree, with Honors, from the Duke University School of Law.

Daniel R. Orlando — Mr. Orlando joined Vericel as Chief Commercial Officer in August of 2012. Mr. Orlando served as interim Chief Executive Officer of Vericel from December 2012 to March 2013. He has more than 20 years of commercial product preparation and launch experience including leadership roles in sales, marketing and most recently as a vice president of business development for North and South America at Takeda Pharmaceuticals U.S.A., Inc., a wholly owned subsidiary of Takeda Pharmaceutical Limited (Takeda North America) from January 1999 to March 2012. As an early employee at Takeda North America, he served as the original brand director for Actos, which became the #1 branded anti-diabetic agent in the United States. Mr. Orlando's initial pharmaceutical experience came in progressively expanding roles in sales and marketing at Abbott

Laboratories. He holds an MBA from Florida Atlantic University and a BA in Economics with Honors from the University of Florida.

David Recker, MD — Dr. Recker joined Vericel in April 2014 and has more than 20 years of experience in drug development most recently at Takeda Global Research & Development, Inc. where he served as Senior Vice President for Clinical Science from 2002 to 2012. Dr. Recker has had responsibility for multiple development programs in a variety of therapeutic areas in his career. He is a Fellow of the American College of Physicians as well as a Fellow of the American College of Rheumatology. He holds an M.D. with Distinction from the University of Michigan where he conducted his internship and residency and was Chief Resident in Internal Medicine. He did his fellowship in training at the National Institutes of Health.

Gerard Michel — Mr. Michel joined Vericel in June of 2014 with over 25 years of experience in the pharmaceutical industry across multiple functional areas. He has considerable experience in business development, raising capital and executing successful financial transactions. Mr. Michel was formerly chief financial officer and vice president, corporate development of Biodel Inc. from November 2007 to May 2014, where he oversaw strategic development, fundraising and capital structure management, marketing efforts, investor relations, and financial reporting and internal controls. Prior to his role at Biodel, from August 2002 to November 2007, Mr. Michel served as chief financial officer and vice president of corporate development of NPS Pharmaceuticals Inc, where he led the first syndicated royalty monetization. Prior to that, Mr. Michel was a Principal at Booz Allen Hamilton Inc. and also held a variety of commercial roles at both Lederle Labs and Wyeth Labs. Mr. Michel holds an M.S. in Microbiology from the University of Rochester School of Medicine, an M.B.A. from the Simon School of Business, and a B.S. in both Biology and Geology from the University of Rochester.

Ross Tubo, PhD — Dr. Tubo joined Vericel in April 2014 with more than twenty years of experience in cell therapy, regenerative medicine, and stem cell biology. Prior to joining Vericel, Dr. Tubo served as a Principal of Research Translation, LLC from November 2010 to March 2014. Dr. Tubo was a pioneer in the research, development, and commercialization of the first autologous cell therapy for articular cartilage repair, known as Carticel. As Vice President of Stem Cell and Chemokine Biology for Genzyme Corporation, a position he held from 1998 to 2010, he developed a world-class research organization designed to understand the underlying cell and molecular mechanism(s) of action of mesenchymal stem cells (MSCs) in autoimmune disease and cancer. These efforts led to the identification of specific therapeutic targets for treatment of these diseases. He holds a Ph.D. in Cell and Molecular Biology from the State University of New York at Buffalo and completed post-doctoral studies at Harvard Medical School.

Available Information

Additional information about Vericel is contained at our website, www.vcel.com. Information on our website is not incorporated by reference into this report. We make available on our website free of charge our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K as soon as reasonably practicable after those reports are filed with the Securities and Exchange Commission (SEC). Our reports filed with the SEC are also made available to read and copy at the SEC's Public Reference Room at 100 F Street, NE, Washington, D.C. 20549. You may obtain information about the Public Reference Room by calling the SEC at 1-800-SEC-0330. Reports filed with the SEC are also made available on its website at www.sec.gov. The following Corporate Governance documents are also posted on our website: Code of Business Conduct and Ethics, Code of Ethics for Senior Financial Officers, Board Member Attendance at Annual Meetings Policy, Director Nominations Policy, Shareholder Communications with Directors Policy and the Charters for each of the Committees of the Board of Directors.

Item 1A. *Risk Factors*

Our operations and financial results are subject to various risks and uncertainties, including those described below, that could adversely affect our business, financial condition, results of operations, cash flows, and trading price of our common stock. The risks and uncertainties described below are not the only ones we face. There may be additional risks and uncertainties that are not known to us or that we do not consider to be material at this time. If the events described in these risks occur, our business, financial condition, and results of operations would likely suffer.

Risks Related to our Business

We have incurred losses, anticipate continuing to incur losses and may not achieve or maintain profitability for some time or at all.

We have incurred net losses each year since our inception in 1989, including net losses of $16.3 million and $19.9 million for the years ended December 31, 2015 and 2014, respectively. As of December 31, 2015, we had accumulated a deficit of approximately $324.0 million and had $14.6 million of cash. Based on our current plan and cash on hand, we believe that we are well positioned to sustain our operations until we achieve profitability.

Although we believe we will achieve profitability without the need to raise additional capital, we may continue to incur significant operating losses over the next several years despite sales increasing and margins improving, due to continuing expenses related to our research and development programs, and the expense associated with continuing the commercialization of our approved products and completing the development of our product candidates. We cannot predict with any certainty the amount of future losses. Our ability to maintain profitability will depend on, among other things, increasing sales of our current products, improving gross margins, successfully commercializing our new products, completing the development of our product candidates, timely initiation and completion of clinical trials, obtaining regulatory approvals, establishing manufacturing, sales and marketing arrangements with third parties, maintaining supplies of key manufacturing components and the possible acquisition and development of complementary products. Therefore, we may not be able to achieve or sustain profitability.

In the longer term, we may need to raise additional funds in order to continue to complete product development programs and complete clinical trials needed to obtain approval for and commercialize our current product candidates or to capitalize on potential strategic opportunities. We cannot be certain that actual results will not differ materially from our current projections and that current capital will be sufficient to achieve profitability nor that funding will be available on favorable terms, if at all. Some of the factors that will impact our ability to raise additional capital and our overall success include:

- The rate and degree of progress of our product development;
- The ability to maintain our manufacturing facility's compliance with U.S. Food and Drug Administration (FDA) requirements including establishment and license fees;
- The rate of regulatory approval to proceed with clinical development programs;
- The level of success achieved in clinical trials;
- The requirements to maintain marketing authorization and licenses from regulatory bodies in the United States and other countries in good standing;
- The liquidity and market volatility of our equity securities;
- Regulatory and manufacturing requirements and uncertainties; and
- Staying ahead of technological developments by competitors.

While we have access to certain amounts of financing through a loan and security agreement (Loan and Security Agreement) that we entered into with Silicon Valley Bank (SVB) in March 2016 (SVB Facility), an agreement with Lincoln Park Capital Fund, LLC (Lincoln Park), and an at-the-market sales agreement (ATM) with MLV & Co., LLC (MLV) (formerly McNicoll, Lewis & Vlak) there are certain factors, such as volume of trading in our common stock and our stock price and the ability to terminate the agreement with notice, which limit the amount that can be raised in a short period of time through these agreements with Lincoln Park and the ATM. In addition there are limits to our borrowing level with SVB based on financial ratios and accounts receivable balance. If funding is needed and we cannot raise such funds, we will not be able to develop, manufacture or enhance products, take advantage of future opportunities, or respond to competitive pressures or unanticipated requirements, which would have a material adverse impact on our business, financial condition and results of operations.

We may not be able to raise the required capital to conduct our operations, develop and commercialize our product candidates and otherwise grow and expand our business.

Notwithstanding the net proceeds of approximately $37.5 million we received from our September 2014 public offering and the availability of funds under the SVB Facility, we will require substantial additional capital resources to complete the development of ixmyelocel-T for the treatment of advanced heart failure due to ischemic DCM and potentially for other strategic opportunities.

In order to grow and expand our business, to introduce other new product candidates into the marketplace, we may need to raise additional funds. We may also need significant additional funds or a collaborative partner, or both, to finance the research and development activities of our cell therapy product candidates for additional indications or in additional markets.

Our future capital requirements will depend upon many factors, including:

- Continued scientific progress in our research, clinical and development programs;
- Costs and timing of conducting clinical trials and seeking regulatory approvals;
- Competing technological and market developments;
- Avoiding infringement and misappropriation of third-party intellectual property;
- Obtaining valid and enforceable patents that give us a competitive advantage;
- Our ability to establish additional collaborative relationships;
- Our ability to scale up our production capabilities for larger quantities of our products;
- The effect of commercialization activities and facility expansions, if and as required; and
- Complementary business acquisitions or development opportunities.

We may direct Lincoln Park to purchase up to $15 million worth of shares of our common stock over a 30-month period generally in amounts up to 50,000 shares of our common stock on certain business days under a Purchase Agreement (the Purchase Agreement) we entered into with Lincoln Park on January 21, 2014 (the Lincoln Park Equity Line). As of December 31, 2015, we had sold $3.7 million worth of shares to Lincoln Park under this purchase agreement. However, there are certain factors, such as volume of trading in our common stock and our stock price, which limit the amount that can be raised in a short period of time. The extent to which we rely on the Lincoln Park Equity Line as sources of funding will depend on a number of factors, including the prevailing market price of our common stock and the extent to which we are able to secure working capital from other sources. If obtaining sufficient funding from Lincoln Park were to prove impracticable or prohibitively dilutive, we may need to secure other sources of funding in order to satisfy our working capital needs. Even if we sell the maximum amount we are eligible to sell to Lincoln Park under the Purchase Agreement, we may need additional capital to fully implement our business, operating and development plans. Should the financing we require to sustain our working capital needs be unavailable or prohibitively expensive should we require it, the consequences may have a material adverse effect on our business, operating results, financial condition and prospects. Additionally, during the year ended December 2014, we raised net proceeds of $7.1 million utilizing our ATM with MLV. The ATM, which as of December 31, 2015 had remaining capacity of approximately $7.8 million, allowed us to sell our common stock from time to time under a registration statement on Form S-3 filed in June 2011, pursuant to which we registered $100 million of our securities for public sale. The Form S-3 registration statement filed in June 2011 expired in July 2014. If we choose to access the remaining capacity, we will file a new Form S-3 registration statement.

We may try to access the public or private equity markets if conditions are favorable to complete a financing, even if we do not have an immediate need for additional capital at that time, or whenever we require additional operating capital. In addition, we may seek collaborative relationships, incur debt and access other available funding sources. This additional funding may not be available to us on reasonable terms, or at all. Some of the factors that will impact our ability to raise additional capital and our overall success include:

- Our ability to further commercialize our products;
- The rate and degree of progress of our product development;
- The rate of regulatory approval to proceed with clinical developmental programs;
- The level of success achieved in clinical trials;
- The requirements for marketing authorization from regulatory bodies in the United States and other countries;
- The liquidity and market volatility of our equity securities; and
- Regulatory and manufacturing requirements and uncertainties, and technological developments by competitors.

If adequate funds are not available in the future, we may not be able to develop or enhance our products, take advantage of future opportunities, or respond to competitive pressures or unanticipated requirements and we may be required to delay or terminate research and development programs, curtail capital expenditures, and reduce business development and other operating activities, which would have a material adverse impact on our business, financial condition and results of operations.

Failure to obtain and maintain required regulatory approvals would severely limit our ability to sell our products.

We must maintain our domestic regulatory approvals to continue to commercialize our products. We must demonstrate the safety, purity and potency, or efficacy, of cell therapy products to obtain FDA regulatory approval prior to marketing in the United States or other countries. Demonstration of safety and efficacy requires the conduct of nonclinical studies and well-controlled clinical trials in compliance with FDA, ICH (International Conference of Harmonization) and applicable local regulations. The FDA regulatory review process to obtain marketing approval is a rigorous process that requires demonstrating the ability to manufacture the product in compliance with current Good Manufacturing Practices (cGMP) in addition to demonstrating a favorable risk/benefit profile. Regulatory requirements outside the U.S. often require additional studies and data to obtain registration. Timelines can also be longer than those in the U.S. We must maintain our domestic and foreign regulatory approvals in compliance with FDA regulatory requirements and applicable local regulations to allow for continued commercialization. The safety, potency and purity of our products must be monitored to be in compliance with FDA requirements for safety, cGMP, and all other applicable regulations. This requires adverse event monitoring and reporting to regulatory agencies, as well as submission and approval of any changes in the manufacturing process. Our manufacturing and testing facilities are subject to FDA periodic inspections for compliance with cGMP requirements. Failure to meet regulatory requirements and maintain cGMP compliance could result in severe and detrimental regulatory actions.

Any changes in the regulatory requirements that affect our products and/or product candidates could prevent, limit or delay our ability to market or develop new product candidates.

FDA regulations establish the regulatory requirements for drugs, devices and biological products. Our cell therapy products are regulated as devices or biologics under current regulations. Biologics require Biologics License Application (BLA) approval in the U.S. prior to being marketed. The regulations and guidance that govern the approval of biological products for marketing in the U.S. are subject to review and change by the FDA and could have an adverse impact on our ability to continue to market our products and bring new products to the market.

Our product candidate, ixmyelocel-T, still needs to initiate and then successfully complete pivotal Phase 3 studies. If we do not successfully continue or complete the clinical development of ixmyelocel-T and MACI, and achieve regulatory approval, our ability to finance our operations may be adversely impacted.

Our near-term prospects depend in part upon our ability to successfully continue and complete clinical development of our product candidates, ixmyelocel-T and MACI, demonstrating adequate safety and effectiveness to obtain regulatory approval in the U.S. The ongoing Phase 2b ixCELL DCM clinical trial is evaluating patients who have been treated with ixmylocel-T. Our ability to finance our company and to generate revenues will depend on the results of the ongoing and planned clinical studies required to demonstrate the safety and effectiveness of ixmyelocel-T to secure marketing authorization and to secure marketing authorization for MACI. Ixmyelocel-T and MACI each could be unsuccessful if it:

- Does not demonstrate acceptable safety and efficacy in clinical trials, or otherwise does not meet applicable regulatory requirements for regulatory approval;
- Does not offer sufficient, clinically meaningful therapeutic benefit over the standard of care/ existing therapies;
- Cannot be produced in commercial quantities at an acceptable costs;
- Is not accepted as a safe, efficacious, and cost-effective treatment over the standard of care and/or current therapies by the medical community and third-party payers.

If the development or commercialization of ixmyelocel-T or MACI is not successful or is significantly delayed, our financial condition and future prospects may be adversely impacted, which could cause us to have substantial difficulties raising the additional capital required to fund our business.

Our products and product development programs are based on novel technologies and are inherently risky.

Our products are subject to the inherent risks of failure associated with the development of new products based on novel technologies. The innovative nature of our therapeutics creates significant challenges in regard to product development and optimization, manufacturing, regulatory environment and emerging regulations, third-party reimbursement and market acceptance. Therapeutic advancements are generally ahead of development and release of regulatory guidance and requirements. The lack of established precedents and evolving regulatory policy for novel products can pose significant challenges in product and clinical development, which can decrease the chances of regulatory success.

Further, when manufacturing autologous cell therapies, the number and the composition of the cell population varies from patient to patient, in part due to the age of the patient, since the therapy is dependent on patient-specific physiology. Such variability in the number and composition of these cells could adversely affect our ability to manufacture autologous cell therapies in a cost-effective manner and meet acceptable product release specifications for use in a clinical trial or, if approved, for commercial sale.

As a consequence, the development and regulatory approval process for autologous cell therapy products could be delayed or may never be completed.

Our products represent new classes of therapy that the marketplace may not understand or accept. Furthermore, the success of our products is dependent on wider acceptance by the medical community.

While our acquired products have had some commercial success to date, the broader market may not understand or accept our products. Our products represent new treatments or therapies and compete with a number of more conventional products and therapies manufactured and marketed by others. The new nature of our products creates significant challenges in regards to product development and optimization, manufacturing, regulations, and third-party reimbursement. As a result, the commercialization of our current products and the development pathway for our potential new products may be subject to increased scrutiny, as compared to the pathway for more conventional products.

The degree of market acceptance of any of our marketed or potential new products will depend on a number of factors, including:

- The clinical safety and effectiveness of our products and their demonstrated advantage over alternative treatment methods;
- Our ability to demonstrate to healthcare providers that our products provide a therapeutic advancement over standard of care or other competitive products / methods;
- Our ability to educate healthcare providers on the autologous use of patient-specific human tissue, to avoid potential confusion with and differentiate ourselves from the ethical controversies associated with human fetal tissue and engineered human tissue;
- Our ability to educate healthcare providers, patients and payers on the safety and adverse reactions involving our products;
- Our ability to meet supply and demand and develop a core group of medical professionals familiar with and committed to the use of our products; and
- The cost-effectiveness of our products and the reimbursement policies of government and third-party payers.

If the medical community or patients do not accept the safety and effectiveness of our products or if our products fail to demonstrate a favorable risk/benefit profile, it could negatively affect our sales, which would have a material adverse impact on our business, financial condition and operations. While acceptance by the medical community may be fostered by broad evaluation via peer-reviewed literature, we may not have the resources to facilitate additional research that can result in additional scientific publications.

Our inability to complete our product development activities successfully would materially limit our ability to operate or finance our operations.

In order to obtain regulatory approval to commercialize our cell product in the United States, we must conduct adequate and well-controlled clinical trials to demonstrate the safety and effectiveness in compliance with current regulatory requirements. We may not be able to successfully complete the development of our product candidates, or successfully market our technologies or product candidates. We, and any of our potential collaborators, may encounter problems and delays relating to research and development, regulatory approval and intellectual property rights of our technologies and product candidates. Our research and development programs may not be successful, and our cell culture technologies and product candidates may not facilitate the production of cells outside the human body with the expected results. Our technologies and cell product candidates may not prove to be safe and effective in clinical trials, and we may not obtain the requisite regulatory approvals for our product candidates. If any of these events occur, we may not have adequate resources to continue operations for the period required to resolve any issues delaying commercialization and we may not be able to raise capital to finance our continued operations during the period required for resolution of any such issues.

We must successfully complete our nonclinical and clinical development program to be able to demonstrate safety and efficacy to seek marketing approval of our cell therapy product candidates. Lack of efficacy and or safety events can lead to the discontinuation of clinical development, and this can occur at any stage of the clinical development program. We may experience numerous unforeseen events during development that can delay or prevent commercialization of our development candidates.

The results of early stage clinical trials do not ensure success in later clinical trials, and interim results are not necessarily predictive of final results.

With respect to any clinical trials affecting our products or development candidates, failures or delays can occur at any stage of the trials, and may be directly or indirectly caused by a variety of factors, including but not limited to:

- Delays in securing clinical investigators or trial sites for our clinical trials;

- Delays in obtaining Institutional Review Board (IRB) and other regulatory approvals to commence a clinical trial;
- Slower than anticipated rates of patient recruitment and enrollment in our clinical trials, or failing to reach the targeted number of patients due to competition for patients from other trials;
- Limited or no availability of coverage, reimbursement and adequate payment from health maintenance organizations and other third party payers for the use of biological products supplied for use in our clinical trials;
- Negative or inconclusive results from clinical trials;
- Unforeseen adverse effects interrupting, delaying, or halting clinical trials of any future therapeutic product candidates, and possibly resulting in the FDA or other regulatory authorities denying approval of any future therapeutic product candidates;
- Unforeseen safety issues;
- Approval and introduction of new therapies or changes in standards of practice or regulatory requirements or guidance that render our clinical trial endpoints or the targeting of our proposed indications obsolete;
- Inability to monitor patients adequately during or after treatment or problems with investigator or patient compliance with the trial protocols;
- Inability to replicate in large controlled trials safety and efficacy data obtained from a limited number of patients in uncontrolled trials;
- Inability or unwillingness of medical investigators to follow our clinical protocols; and
- Unavailability of clinical trial supplies.

The FDA and the sponsor monitor the progress of clinical trials and they may suspend or terminate a clinical trial at any time due to patient safety or other considerations. The FDA may impose a clinical hold on our trials because of safety concerns that have arisen for products or product candidates that are similar to our product candidates.

Our research programs are currently directed at improving product functionality for certain clinical indications, improving product shelf life, and decreasing the cost of manufacturing our products. These production process changes may alter the functionality of our cells and require various additional levels of experimental and clinical testing and evaluation. Any such testing could lengthen the time before these products would be commercially available.

Even when successful clinical results are reported for a product from a completed clinical trial, the durability of response may not be sustained over time, or may not be sufficient to support regulatory approval.

We may rely on third parties to conduct some of our clinical trials, and their failure to perform their obligations in a timely or competent manner may delay development and/or impact commercialization of our product candidates.

We may use clinical research organizations (CROs) to assist in the conduct of our clinical trials. There are numerous alternative sources to provide these services. However, we may face delays outside of our control if these parties do not perform their obligations in a timely or competent fashion, or if we are forced to change service providers. Any third party that we hire to conduct clinical trials may also provide services to our competitors, which could compromise the performance of their obligations to us. If we experience significant delays in the progress of our clinical trials, the commercial prospects for product candidates could be harmed and our ability to generate product revenue would be delayed or prevented. In addition, we and any provider that we retain will be subject to Good Clinical Practice (GCP) requirements. If GCP and other regulatory requirements are not adhered to by us or our third-party providers, the conduct of the trial may be compromised and the development and commercialization of our product candidates could be delayed or approval may never be obtained.

Any failure of such CRO to successfully accomplish clinical trial monitoring, data collection, safety monitoring and data management and the other services it provides for us in a timely manner and in compliance with regulatory requirements could have a material adverse effect on our ability to utilize the trial to obtain regulatory approval or complete clinical development of our products to support regulatory approval. Problems with the timeliness or quality of the work of a CRO may lead us to seek to terminate the relationship and use an alternate service provider. However, making such changes may be costly and may delay our trials, and contractual restrictions may make such a change difficult or impossible. Additionally, it may be difficult to find a replacement organization that can conduct our trials in an acceptable manner and at an acceptable cost.

Failure of third parties, including Vention Medical, Sanofi or Matricel GmbH, to manufacture or supply certain components, equipment, disposable devices and other materials used in our ixmyelocel-T, Epicel and MACI cell manufacturing processes would impair our cell product development.

We rely on third parties, including Vention Medical, Inc. (Vention), Sanofi and Matricel GmbH (Matricel) to manufacture and/or supply certain of our devices/manufacturing equipment and to manufacture and/or supply certain components, equipment, disposable devices and other materials used in our cell manufacturing process to develop our marketed cell therapy products and

our product candidates. In many instances these third parties serve as our sole suppliers. For example, Vention is the sole supplier for the cell cassettes used in the ixmyelocel-T manufacturing process; Sanofi is the sole supplier of 3t3 cells for Epicel; and Matricel is the sole supplier of the membrane for MACI. In each case it would be difficult to obtain alternate sources of supply on a short-term basis. If any of our manufacturers or suppliers fails to perform its respective obligations, or if our supply of certain components, equipment, disposable devices and other materials is limited or interrupted, it could impair our ability to manufacture our products, which would delay our ability to conduct our clinical trials or market our product candidates on a timely and cost-competitive basis, if at all.

In addition, we may not be able to continue our present arrangements with our suppliers, supplement existing relationships, establish and maintain new relationships or be able to identify and obtain the ancillary materials that are necessary to develop our product candidates in the future. Our dependence upon third parties for the supply and manufacture of these items could adversely affect our ability to develop and deliver commercially feasible products on a timely and competitive basis.

Failure by our third-party manufacturers, including Vention and Matricel, to comply with the regulatory requirements set forth by the FDA with respect to our products could delay or prevent the completion of clinical trials, the approval of any product candidates or the commercialization of our products.

Third-party manufacturers, such as Vention and Matricel, must be inspected by the FDA for current Good Manufacturing Practice, or cGMP, compliance, as well as for their ability to manufacture the product in compliance with the established process and procedure for the proposed new product during a pre-approval inspection. We may be in competition with other companies for access to these manufacturers' facilities and may be subject to delays in manufacture if the manufacturers give other clients higher priority than they give to us. If we are unable to secure and maintain third-party manufacturing capacity, the development and sales of our products and our financial performance may be materially affected.

Manufacturers are obligated to operate in accordance with FDA-mandated requirements. A failure of any of our third-party manufacturers to establish and follow cGMP requirements and to document their adherence to such practices may lead to significant delays in the availability of material for clinical trials, may delay or prevent filing or approval of marketing applications for our products, and may cause delays or interruptions in the availability of our products for commercial distribution following FDA approval. This could result in higher costs to us or deprive us of potential product revenues.

Complying with cGMP and non-U.S. regulatory requirements will require that we expend time, money, and effort in production, recordkeeping, and quality control to assure that the product meets applicable specifications and other requirements. We, or our contracted manufacturing facility, must also pass a pre-approval inspection prior to FDA approval. Failure to pass a pre-approval inspection may significantly delay FDA approval of our products. Failure to comply with cGMP requirements, can result in regulatory action that can limit the ability to manufacture commercial products. As a result, our business, financial condition, and results of operations may be materially harmed.

The manufacture of cell therapy products is characterized by inherent risks and challenges and has proven to be a costly endeavor relative to manufacturing other therapeutic products.

The manufacture of cell therapy products, such as our products and product candidates, is highly complex and is characterized by inherent risks and challenges such as autologous raw material inconsistencies, logistical challenges, significant quality control and assurance requirements, manufacturing complexity, and significant manual processing. Unlike products that rely on chemicals for efficacy, such as most pharmaceuticals, cell therapy products are difficult to characterize due to the inherent variability of biological input materials. Difficulty in characterizing biological materials or their interactions creates greater risk in the manufacturing process. We attempt to mitigate risk associated with the manufacture of biologics by continuing to improve the characterization of all of our input materials, utilizing multiple vendors for supply of qualified biological materials, and manufacturing some of these materials ourselves. However, there can be no assurance that we will be able to maintain adequate sources of biological materials or that biological materials that we maintain in inventory will yield finished products that satisfy applicable product release criteria. Our inability to obtain necessary biological materials or to successfully manufacture cell therapy products that incorporate such materials could have a material adverse effect on our results of operations.

There can be no assurance that we or any third-party contractors with whom we enter into strategic relationships will be successful in streamlining manufacturing operations and implementing efficient, low-cost manufacturing capabilities and processes that will enable us to meet the quality, price and production standards or production volumes to achieve profitability. Our failure to develop these manufacturing processes in a timely manner could prevent us from achieving our growth and profitability objectives as projected or at all.

We have limited manufacturing capacity and our commercial manufacturing operations in the U.S. depend on one facility. Similarly, manufacturing of our lead product candidate, ixmyelocel-T, is conducted at one facility. If either facility is destroyed or we experience any manufacturing difficulties, disruptions or delays, this could limit supply of our products or adversely affect our ability to conduct our clinical trials and our business would be adversely impacted.

We presently conduct all of our commercial manufacturing operations in the U.S. at one facility located in Cambridge, Massachusetts. As a result, all of the commercial manufacturing of our marketed products, Epicel and Carticel, for the U.S. market takes place at a single U.S. facility. In addition, clinical trials for certain product candidates would primarily depend upon the manufacturing of such product candidates in the same Cambridge facility. Similarly, manufacturing of our product candidate ixmyelocel-T takes place at one facility located in Ann Arbor, Michigan. If regulatory, manufacturing or other problems require us to discontinue production at either facility, we will not be able to supply our products to our patients or have supplies for any clinical trials, which would adversely impact our business. If either facility or the equipment in it is significantly damaged or destroyed by fire, flood, power loss or similar events, we may not be able to quickly or inexpensively replace our manufacturing capacity or replace our facility at all. In the event of a temporary or protracted loss of this facility or equipment, we might not be able to transfer manufacturing to a third party. Even if we could transfer manufacturing from one facility to the other or to a third party, the shift would likely be expensive and time-consuming, particularly since an alternative facility would need to comply with the applicable regulatory and quality standard requirements whereby validation and FDA approval would be required before any products manufactured at that facility could be made commercially available.

While we do maintain insurance coverage against damage to our property and equipment, if we have underestimated our insurance needs, we will not have sufficient insurance to cover losses above and beyond the limits on our policies.

We are subject to significant regulation with respect to the manufacturing of our products.

All of those involved in the preparation of a cellular therapy for clinical trials or commercial sale, including our existing supply contract manufacturers and clinical trial investigators, are subject to extensive and continuing government regulations by the FDA and comparable agencies in other jurisdictions. Components of a finished therapeutic product approved for commercial sale or used in late-stage clinical trials must be manufactured in accordance with cGMP. These regulations govern manufacturing processes and procedures and the implementation and operation of quality systems to control and assure the quality of investigational products and products approved for sale. Our facilities and quality systems and the facilities and quality systems of some or all of our third party contractors and suppliers are subject to pre-approval and routine FDA inspections for compliance with the applicable regulations as a condition of FDA approval of our products.

Our manufacturing facility in Cambridge, Massachusetts was inspected by the FDA in 2014. On March 19, 2014, the FDA issued a Form 483 List of Inspectional Observations. A Form 483 is issued when, in an investigator's judgment, the observed conditions or practices observed during an FDA inspection of the manufacturing facility indicate that an FDA-regulated product may be in violation of FDA's requirements. We have completed remedial measures to improve our manufacturing process and have responded to all FDA observations. Generally, if any such inspection or audit identifies a failure to comply with applicable regulations or if a violation of our product specifications or applicable regulation occurs independent of such an inspection or audit, we or the FDA may require remedial measures that may be costly and/or time consuming for us or a third party to implement and that may include the temporary or permanent suspension of a clinical trial or commercial sales, recalls, warning letters, market withdrawals, seizures or the temporary or permanent closure of a facility. Any such remedial measures imposed upon us or third parties with whom we contract could materially harm our business.

We could incur significant costs complying with environmental and health and safety requirements, or as a result of liability for contamination or other harm caused by hazardous materials that we use.

Our research and development and manufacturing processes involve the use of hazardous materials. We are subject to federal, state, local and foreign environmental requirements, including regulations governing the use, manufacture, handling, storage and disposal of hazardous materials, discharge to air and water, the cleanup of contamination and occupational health and safety matters. We cannot eliminate the risk of contamination or injury resulting from hazardous materials, and we may incur liability as a result of any contamination or injury. Under some environmental laws and regulations, we could also be held responsible for costs relating to any contamination at our past or present facilities and at third party waste disposal sites where we have sent wastes. These could include costs relating to contamination that did not result from any violation of law, and in some circumstances, contamination that we did not cause. We may incur significant expenses in the future relating to any failure to comply with environmental laws. Any such future expenses or liability could have a significant negative impact on our financial condition. The enactment of stricter laws or regulations, the stricter interpretation of existing laws and regulations or the requirement to undertake the investigation or remediation of currently unknown environmental contamination at our own or third party sites may require us to make additional expenditures, which could be material.

In order to obtain marketing authorization of any of our cell therapy product candidates, including MACI and ixmyelocel-T, in the United States, the FDA requires us to submit a BLA, which is subject to the agency's detailed review.

The Biologics License Application (BLA) is a request for permission to introduce, or deliver for introduction, a biologic product into interstate commerce in the U.S. MACI (matrix applied characterized autologous cultured chondrocytes) and ixmyelocel-T are subject to the FDA's biological product requirements. A BLA was submitted on January 4, 2016, and subsequently accepted for review by the FDA for MACI on March 4, 2016. The FDA will have 10 months per the timelines set forth under the Prescription Drug User Fee Act (PDUFA), to review the application for compliance with the requirements set forth in Section 351 of the Public Health Service Act (PHSA). The approvability of the BLA is based on the acceptability of the results of a single clinical study conducted outside the United States to meet the safety and effectiveness requirements for approval, and the acceptability of foreign data. The Cambridge manufacturing facility will also be subject to a pre-approval inspection to demonstrate the capabilities to manufacture the product under cGMP requirements in compliance with the procedures provided in the BLA. MACI is considered a combination product consisting of the autologous cultured chondrocytes (the cell product) and ACI-Maix membrane (the device). The ACI-Maix membrane is manufactured by Matricel. Matricel will also be subject to an FDA pre-approval inspection in connection with the BLA review and approval. A filing fee of $2.4 million was paid to the FDA for review of the application. If the application is not filed, and a Refuse to File letter is received, 25% of the filing fee will be forfeited. There are risks with respect to the review of the MACI BLA. A second study may be required to secure regulatory approval or as a post-marketing commitment. This can result in additional time to market and/or additional cost. The MACI regulatory approval in the U.S. will be associated with a commitment to conduct a pediatric clinical study in the U.S. The conduct of this study will require funding and resources. This will be a post-approval commitment. If not met the product may be withdrawn from the market by FDA.

Our business, financial condition, results of operation and cash flows could be significantly and negatively affected by substantial governmental regulations.

Our products are subject to rigorous regulation by the FDA and numerous other federal, state and foreign governmental authorities. Overall, there appears to be a trend toward more stringent regulation worldwide, and we do not anticipate this trend to dissipate in the near future.

In general, the development, testing, labeling, manufacturing and marketing of our products are subject to extensive regulation and review by numerous governmental authorities both in the United States and abroad. The regulatory process requires the expenditure of significant time, effort and expense to bring new products to market. For example, the FDA approved Epicel as a HUD pursuant to an HDE application. A HUD is a medical device intended to benefit patients in the treatment or diagnosis of a disease or condition that affects fewer than 4,000 individuals in the United States per year. A HUD with an approved HDE is approved by the FDA for marketing. However, Institutional Review Board (IRB) approval is required before a HUD can be used at a facility, with the exception of emergency use. The HDE holder is responsible for ensuring that a HUD approved under an HDE is administered only in facilities having an IRB constituted and acting in accordance with the agency's regulation governing IRBs, including continuing review of use of the device. HUDs are also subject to additional FDA requirements, such as adverse event reporting and the submission of updated information on a periodic basis to demonstrate that the HUD designation is still valid. Failure to meet FDA requirements pertaining to a HUD could result in the suspension or revocation of the HDE.

If the HDE is suspended or revoked, marketing approval for Epicel would require the submission and approval of a premarket approval application (PMA) in order to be made commercially available. The PMA process is costly, lengthy and uncertain. A PMA must be supported by extensive data, including, but not limited to, technical, preclinical, clinical trial, manufacturing and labeling data, to demonstrate to the FDA's satisfaction the safety and efficacy of the device for its intended use. If the HDE approval for Epicel was withdrawn, and we were unable to obtain approval of a PMA, we could not market Epicel for sale in the U.S.

We are also required to implement and maintain stringent reporting, labeling and record keeping procedures. More specifically, in the United States, both before and after a product is commercially released, we have ongoing responsibilities under FDA regulations. Compliance with the FDA's requirements, including the FDA's cGMP recordkeeping regulations, labeling and promotional requirements and adverse event reporting regulations, is subject to continual review and is monitored rigorously through periodic inspections by the FDA. Our failure to comply with U.S. federal, state and foreign governmental regulations could lead to the issuance of warning letters or untitled letters, the imposition of injunctions, suspensions or loss of regulatory approvals, product recalls, termination of distribution, product seizures or civil penalties. In the most extreme cases, criminal sanctions or closure of our manufacturing facility are possible.

In addition, the pharmaceutical, biologic and medical device industries also are subject to many complex laws and regulations governing Medicare and Medicaid reimbursement and targeting healthcare fraud and abuse, with these laws and regulations being subject to interpretation. In many instances, the industry does not have the benefit of significant regulatory or judicial interpretation

of these laws and regulations. In certain public statements, governmental authorities have taken positions on issues for which little official interpretation was previously available. Some of these positions appear to be inconsistent with common practices within the industry but have not previously been challenged.

Various federal and state agencies have become increasingly vigilant in recent years in their investigation of various business practices, such as the federal Anti-kickback Statute and the federal False Claims Act. Governmental and regulatory actions against us can result in various actions that could adversely impact our operations, including:

- The recall or seizure of products;
- The suspension or revocation of the authority necessary for the production or sale of a product;
- The suspension of shipments from particular manufacturing facilities;
- The imposition of fines and penalties;
- The delay of our ability to introduce new products into the market;
- Our exclusion or the exclusion of our products from being reimbursed by federal and state healthcare programs (such as Medicare, Medicaid, Veterans Administration, or VA, health programs and Civilian Health and Medical Program Uniformed Service, or CHAMPUS); and
- Other civil or criminal prosecution or sanctions against us or our employees, such as fines, penalties or imprisonment.

Any of these actions, in combination or alone, or even a public announcement that we are being investigated for possible violations of these laws, could have a material adverse effect on our business, financial condition, results of operations and cash flows.

The Sunset Clause provided under European Union (EU) pharmaceutical legislation, requires Marketing Authorization Holders (MAH) in the EU to place the product on the market within 3 years from the date of granting of the authorization. Otherwise, the authorization will cease to be valid. Likewise, for a product that was previously placed on the market and is no longer actually present on the market for 3 consecutive years from the last day of distribution, the authorization will cease to be valid. The rules have been the subject of interpretation by European Medicines Agency (EMA) and the European Commission to mean that the marketing authorization of a medicinal product will remain valid if at least one presentation of the existing product presentations is placed on the market in at least one Member State of the EU and the European Economic Area (EEA). In the case of MACI, this means that Vericel has 3 years from the date of last distribution to make the product available in at least one Member State of the EU/EEA. In order to resume product supply in the EU/EEA, this will require the registration, qualification and approval of an EU compliant cGMP manufacturing facility within the allotted timeframe. In addition, Vericel must comply with the Pediatric Investigational Plan (PIP) that is in place as a post-authorization commitment agreed with the EMA. The current PIP requires Vericel to submit the results of the pediatric study prior to 2017 according to the study protocol previously agreed between the EMA and the previous sponsor. Unless the PIP commitment date is modified and unless Vericel decides to make investments to register and qualify its cGMP manufacturing facility in the EU for it to be approved, the marketing authorization for MACI could be at risk of being revoked under the prevailing EU law.

In the United States, if the FDA were to conclude that we are not in compliance with applicable laws or regulations or that any of our products are ineffective or pose an unreasonable health risk, the FDA could ban such products, detain or seize adulterated or misbranded products, order a recall, repair, replacement, or refund of payment of certain products, refuse to grant pending applications, refuse to provide certificates to foreign governments for exports, and/or require us to notify healthcare professionals and others that the products present unreasonable risks of substantial harm to the public health. The FDA may also impose operating restrictions on a companywide basis, enjoin and restrain certain violations of applicable law pertaining to our products and assess civil or criminal penalties against our officers, employees or us. The FDA may also recommend prosecution to the United States Department of Justice (DOJ). Adverse regulatory action, depending on its magnitude, may restrict us from effectively marketing and selling our products.

In many of the foreign countries in which our products are marketed, we are subject to regulations affecting, among other things, clinical efficacy, product standards, packaging requirements, labeling requirements, import/export restrictions, tariff regulations, duties and tax requirements. Many of the regulations applicable to our products in these countries, such as the Medicinal Products Directive and the ATMP guidelines, governing products in the EU, are similar to those of the FDA. In addition, in many countries the national health or social security organizations require our products to be qualified before they can be marketed with the benefit of reimbursement eligibility. Failure to receive or delays in the receipt of relevant foreign qualifications also could have a material adverse effect on our business, financial condition, results of operations and cash flows.

As both the U.S. and foreign government regulators have become increasingly stringent, we may be subject to more rigorous regulation by governmental authorities in the future. Our products and our operations are also often subject to the rules of industrial

standards bodies, such as the International Standards Organization, or ISO. If we fail to adequately address any of these regulations, our business will be harmed.

Changes to our products or product candidates may require regulatory approvals. It may be necessary to recall or cease marketing our products until certain issues are resolved and regulatory approval is obtained.

Changes or modifications in the manufacturing process may require the submission of supplements to our BLAs, Humanitarian Device Exemption (HDE) application, and Investigational New Drug applications (INDs). These supplements require the generation of data to support the change, review and approval by FDA to obtain authorization for the change in the commercial product or in the investigational biological product before they can be implemented. Obtaining regulatory approvals for these changes may require the conduct of new studies and purchase of new equipment to justify the change. This can be costly and time consuming. Regulatory delays can adversely impact our ability to improve our products and to introduce new products in a timely manner. This can be detrimental to our future growth.

If we or our suppliers fail to comply with ongoing FDA or other foreign regulatory authority requirements, or if we experience unanticipated problems with our products, these products could be subject to restrictions or withdrawal from the market.

The manufacturing processes, reporting requirements, post-approval clinical data and promotional activities for each of our products is subject to continued regulatory reporting and periodic inspections by the FDA, as well as other domestic and foreign regulatory agencies. In particular, we and our suppliers are required to comply with cGMP and Good Tissue Practice (GTP) regulations for the manufacture of our products and other regulations which include, methods and documentation of production controls, labeling, packaging, storage and shipment of any product to name a few. Regulatory agencies, such as the FDA, enforce the cGMP, GTP and other regulations through periodic inspections and reporting. For example, the holder of an approved BLA or HUD is obligated to monitor and report adverse events, and product failures, including critical deviations and lack of efficacy. A BLA or HDE device holder must maintain regulatory compliance for all aspects of the applicable regulations or can be subject to regulatory action, including recall or withdrawal from the market.

Product manufacturers and their facilities are subject to payment of annual user fees and periodic inspections by the FDA and other regulatory agencies for compliance with cGMP and other applicable regulations. If at any time we or a regulatory agency discovers a previously unknown safety concern with a product, such as a serious adverse event of unanticipated severity or frequency that cannot be adequately manage and changes the risk-benefit profile of the product, or there are problems with the facility where the product is manufactured; a regulatory agency may impose restrictions relative to that product or the manufacturing facility, including suspension of manufacturing recall or withdrawal of the product from the market.

Advertising and promotional materials, including educational and web-site material, must comply with FDA's promotional and advertising regulations in addition to other potentially applicable federal and state laws, and such materials for biologics are subject to submission and review by the Center of Biological Research (CBER), Promotional Advertising Labeling Branch (PALB).

The failure by us or one of our suppliers to comply with applicable legal statutes and regulations administered by the FDA and other regulatory agencies, or the failure to timely and adequately respond to any adverse inspectional or review observations, or product safety issues, could result in, among other things, any of the following enforcement actions:

- Untitled letters, warning letters, fines, injunctions, consent decrees and civil penalties;
- Unanticipated expenditures to address or defend such actions;
- Client notifications for repair, replacement, or refunds of a device;
- Recall, detention or seizure of our products;
- Operating restrictions or partial suspension or total shutdown of production;
- Denying, refusing or delaying our requests for approval of new products or proposed changes to existing products;
- Operating restrictions;
- Withdrawing product approvals that have already been granted;
- Refusal to approve a pending marketing application, such as a BLA or supplements to a BLA submitted by us;
- Refusal to grant export approval for our products; or
- Criminal prosecution.

If any of these actions were to occur it would harm our reputation and cause our product sales and profitability to suffer, preventing us from generating revenue. Furthermore, our key suppliers may have compliance issues which could impact our ability to manufacture our products on a timely basis and in the required quantities.

Our marketed products may be used by physicians for indications that are not approved by the FDA. If the FDA finds that we marketed our products in a manner that promoted off-label use, we may be subject to civil or criminal penalties.

Under the Federal Food, Drug, and Cosmetic Act (FFDCA) and other laws, we are prohibited from promoting our products for off-label uses. This means, for example, that we may not make claims about the use of any of our marketed products, including Carticel or Epicel, outside of their approved labeling and indications. Therefore, we may not proactively discuss or provide information on off-label uses. The FDA does not, however, restrict physicians from prescribing products for off-label uses in the practice of medicine. Should the FDA determine that our activities constitute the promotion of off-label uses, the FDA could bring an action to prevent us from distributing Carticel or Epicel for the off-label use and could impose fines and penalties on us and our executives. In addition, failure to follow FDA rules and guidelines relating to promotion and advertising can result in, among other things, the FDA's refusal to approve a product, the suspension or withdrawal of an approved product from the market, product recalls, fines, disgorgement of money, operating restrictions, injunctions or criminal prosecutions.

If the Office of Inspector General within the Department of Health and Human Services, the DOJ, or another federal or state agency determines that we have promoted off-label use of our products, we may be subject to various penalties, including civil or criminal penalties, and the off-label use of our products may result in injuries that lead to product liability suits, which could be costly to our business.

In addition to the FDA restrictions on our marketed products, several other types of state and federal healthcare laws have been applied by DOJ and state attorneys general to restrict certain marketing practices in the pharmaceutical industry. While physicians may prescribe products for off-label uses and indications, if other federal or state regulatory authorities determine that we have engaged in off-label promotion through remuneration, kickbacks or other monetary benefits to prescribers, we may be subject to civil or criminal penalties and could be prohibited from participating in government healthcare programs such as Medicaid and Medicare. In addition, government agencies or departments could conclude that we have engaged in off-label promotion and, potentially, caused the submission of false claims. Even if we are successful in resolving such matters without incurring penalties, responding to investigations or prosecutions will likely result in substantial costs and could significantly and adversely impact our reputation and divert management's attention and resources, which could have a material adverse effect on our business, operating results, financial condition and ability to finance our operations. In addition, the off-label use of our products may increase the risk of injury to patients, and, in turn, the risk of product liability claims. Product liability claims are expensive to defend and could divert our management's attention and result in substantial damage awards against us.

The price and sale of any of our products may be limited by health insurance coverage and government regulation.

Maintaining and growing sales of our products will depend in large part on the availability of adequate coverage and the extent to which third-party payers, including health insurance companies, health maintenance organizations (HMOs), and government health administration authorities such as Medicare and Medicaid, private insurance plans and managed care programs will pay for the cost of the products and related treatment. Hospitals and other healthcare provider clients that purchase our products typically bill various third-party payers to cover all or a portion of the costs and fees associated with the procedures in which such products are used, including the cost of the purchase of these products. Third-party payers are also increasingly attempting to contain healthcare costs by demanding price discounts or rebates and limiting both coverage and the amounts that they will pay for certain products, and, as a result, they may not cover or continue to provide adequate payment for our products. We might need to conduct post-marketing studies in order to demonstrate the cost-effectiveness of our products and product candidates to such payers' satisfaction. Such studies might require us to commit a significant amount of management time and financial and other resources. Our products and future products might not ultimately be considered cost-effective. Adequate third-party reimbursement might not be available to enable us to maintain price levels sufficient to realize an appropriate return on investment in our products and future product development. If coverage and adequate reimbursement are not available, reimbursement is available only to limited levels, or if our costs of production increase faster than increases in reimbursement levels, we may not be able to successfully grow the sales of our products or commercialize any product candidates for which marketing approval is obtained.

Coverage decisions and payment amounts are established at the discretion of the individual third-party payer, and the regulations that govern pricing, coverage and reimbursement vary widely from country to country. Many private payers in the United States, however, use coverage decisions and payment amounts determined by the Centers for Medicare & Medicaid Services (CMS), as guidelines in setting their coverage and reimbursement policies. As the portion of the U.S. population over the age of 65 and eligible for Medicare continues to grow, we may be more vulnerable to coverage and reimbursement limitations imposed by CMS. While certain procedures using our products are currently covered by Medicare and other third-party payers, future action by CMS or other government agencies may diminish payments to physicians, outpatient centers and/or hospitals for covered services. As a result, we cannot be certain that the procedures performed with our products will be reimbursed at a cost-effective level or reimbursed at all.

Furthermore, the healthcare industry in the United States has experienced a trend toward cost containment as government and private insurers seek to control healthcare costs by imposing lower payment rates and negotiating reduced contract rates with service providers. Therefore, we cannot be certain that the procedures performed with our products will be reimbursed at a cost-effective level. Nor can we be certain that third-party payers using a methodology that sets amounts based on the type of procedure performed, such as those utilized by Medicare and in many privately managed care systems, will view the cost of our products to be justified so as to incorporate such costs into the overall cost of the procedure. Moreover, we are unable to predict what changes will be made to the reimbursement methodologies used by third-party payers in the future.

We face intense competition in the markets targeted by our products. Many of our competitors have substantially greater resources than we do, and we expect that all of our products will face intense competition from existing or future products.

All of our products face intense competition from existing and future products marketed by large companies. These competitors may successfully market products that compete with our products, identify and bring to market new product candidates earlier than we do, or develop products that are more effective or less costly than our products. These competitive factors could require us to conduct substantial new research and development activities to establish new product targets, which would be costly and time consuming. These activities can adversely impact our ability to effectively commercialize products and achieve revenue and profits.

If we do not keep pace with our competitors and with technological and market changes, our products will become less attractive or obsolete and our business may suffer.

The markets for our products are highly competitive, subject to rapid technological changes, and vary for different candidates and processes that directly compete with our products. Our competitors in the medical and biotechnology industries may have superior products, research and development, manufacturing, and marketing capabilities, and financial resources or marketing positions. Furthermore, our competitors may have developed, or could in the future develop, new technologies that compete with our products or even render our products obsolete. As an example, in the past, published studies have suggested that hematopoietic stem cell therapy use for bone marrow transplantation, following marrow ablation due to chemotherapy, may have limited clinical benefit in the treatment of breast cancer, which was a significant portion of the overall hematopoietic stem cell transplant market. This resulted in the practical elimination of this market for our cell-based product for this application.

Our cell manufacturing system for ixmyelocel-T is designed to improve and automate the processes for producing cells used in therapeutic procedures. Even if we are able to demonstrate improved or equivalent results, the cost or process of treatment and other factors may cause researchers and practitioners to not use our products and we could suffer a competitive disadvantage. To the extent that others develop new technologies that address the targeted application for our products, our business will suffer. Finally, if we are unable to continue to develop and market new products and technologies in a timely manner, the demand for our products may decrease or our products could become obsolete, and our revenue may decline.

Ethical, legal, social and other concerns surrounding the use of human tissue in synthetic biologically engineered products may negatively affect public perception of us or our products, or may result in increased scrutiny of our products and any future product candidates from a regulatory perspective, thereby reducing demand for our products, restricting our ability to market our products, or adversely affecting the market price for our common stock.

The commercial success of our products depends in part on general public acceptance of the use of human tissue for the treatment of human diseases and other conditions. While not as controversial as the use of embryonic stem cells and fetal tissue, the use of adult tissue has been the subject of substantial debate regarding related ethical, legal and social issues. We do not use embryonic stem cells or fetal tissue, but the public may not be able to, or may fail to, differentiate our autologous use of adult tissue from the use by others of embryonic stem cells or fetal tissue. This could result in a negative perception of our company or our products.

Future adverse events in the field of cellular based therapy or changes in public policy could also result in greater governmental regulation of our products and potential regulatory uncertainty or delay relating to any required testing or approval.

Use of animal-derived materials could harm our product development and commercialization efforts.

Some of the manufacturing materials and/or components that we use in, and which are critical to, implementation of our technology involve the use of animal-derived products, including fetal bovine serum. Supplier changes or regulatory actions may limit or restrict the availability of such materials for clinical and commercial use for a variety of reasons including contamination or perceived risk of contamination with an adventitious agent, such as bovine spongiform encephalopathy (BSE), in one of our

suppliers' herds. This may lead to a restricted supply of the serum currently required for our product manufacturing processes. Any restrictions on these materials would impose a potential competitive disadvantage for our products or prevent our ability to manufacture our cell products. The FDA and other regulatory agencies have issued regulations for controls over bovine material in animal feed. These regulations do not appear to affect our ability to purchase the manufacturing materials we currently use. However, regulatory agencies may introduce new regulations that could affect our operations. Our inability to develop or obtain alternative compounds would harm our product development and commercialization efforts. There are certain limitations in the supply of certain animal-derived materials, which may lead to delays in our ability to complete clinical trials or eventually to meet the anticipated market demand for our cell products.

Health care reform measures and changes in policies, funding, staffing and leadership at the FDA and other agencies could hinder or prevent the commercial success of our products.

In the United States, there have been a number of legislative and regulatory changes to the healthcare system in ways that could affect our future results of operations and the future results of operations of our potential customers.

Furthermore, there have been and continue to be a number of initiatives at the federal and state levels that seek to reduce healthcare costs. In March 2010, President Obama signed into law the Patient Protection and Affordable Care Act of 2010, as amended by the Health Care and Education Reconciliation Act (jointly, the Affordable Care Act), which includes measures to significantly change the way health care is financed by both governmental and private insurers. Among the provisions of the Affordable Care Act of importance to the pharmaceutical industry are the following:

- An annual, nondeductible fee on any entity that manufactures or imports certain branded prescription drugs and biologic products, apportioned among these entities according to their market share in certain government healthcare programs;
- Expansion of eligibility criteria for Medicaid programs by, among other things, allowing states to offer Medicaid coverage to additional individuals and by adding new mandatory eligibility categories for certain individuals with income at or below 133% of the Federal Poverty Level, thereby potentially increasing both the volume of sales and manufacturers' Medicaid rebate liability;
- Expansion of the entities eligible for discounts under the Public Health Service pharmaceutical pricing program;
- New requirements to report certain financial arrangements with physicians and teaching hospitals, as defined in the Affordable Care Act and its implementing regulations, including reporting any "transfer of value" made or distributed to physicians and teaching hospitals and reporting any ownership and investment interests held by physicians and their immediate family members and applicable group purchasing organizations during the preceding calendar year, with data collection required and reporting to the Centers for Medicare & Medicaid Services (CMS) required by the 90th day of each calendar year;
- Expansion of health care fraud and abuse laws, including the False Claims Act and the Anti-Kickback Statute, new government investigative powers, and enhanced penalties for noncompliance;
- A licensure framework for follow-on biologic products;
- A new Patient-Centered Outcomes Research Institute to oversee, identify priorities in, and conduct comparative clinical effectiveness research, along with funding for such research;
- Creation of the Independent Payment Advisory Board which, beginning in 2014, has authority to recommend certain changes to the Medicare program that could result in reduced payments for prescription products and those recommendations could have the effect of law even if Congress does not act on the recommendations; and
- Establishment of a Center for Medicare Innovation at the CMS to test innovative payment and service delivery models to lower Medicare and Medicaid spending.

In addition, other legislative changes have been proposed and adopted since the Affordable Care Act was enacted. On August 2, 2011, the Budget Control Act of 2011, among other things, created measures for spending reductions by Congress. This includes aggregate reductions to Medicare payments to providers of up to 2% per fiscal year. 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, 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. These laws may result in additional reductions in Medicare and other health care funding, which could have a material adverse effect on our customers and accordingly, our financial operations.

Additionally, individual states have become increasingly aggressive in passing legislation and implementing regulations designed to control product pricing, including price or patient reimbursement constraints, discounts, restrictions on certain product access, and marketing cost disclosure and transparency measures, and designed to encourage importation from other countries and bulk purchasing. Legally-mandated price controls on payment amounts by third-party payers or other restrictions could harm our business, results of operations, financial condition and prospects.

In addition, regional healthcare authorities and individual hospitals are increasingly using bidding procedures to determine what products and which suppliers will be included in their healthcare programs. This can reduce demand for our products or put pressure on our product pricing, which could negatively affect our business, results of operations, financial condition and prospects.

Additionally, given recent federal and state government initiatives directed at lowering the total cost of healthcare, Congress and state legislatures will likely continue to focus on healthcare reform and the reform of the Medicare and Medicaid programs. While we cannot predict the full outcome of any such legislation, it may harm our ability to market our products and generate revenues.

Furthermore, regulatory authorities' assessment of the data and results required to demonstrate safety and effectiveness can change over time and can be affected by many factors, such as the emergence of new information, including on other products, changing policies and agency funding, staffing and leadership. We cannot be sure whether future changes to the regulatory environment will be favorable or unfavorable to our business prospects.

Tissue-based products are regulated differently in different countries. These requirements may be costly and result in delay or otherwise preclude the distribution of our products in some foreign countries, any of which would adversely affect our ability to generate operating revenues.

Tissue based products are regulated differently in different countries. Many foreign jurisdictions have a different and may have a more difficult regulatory pathway for human tissue based products, which may prohibit the distribution of these products until the applicable regulatory agencies grant marketing approval, or licensure. The process of obtaining regulatory approval is lengthy, expensive and uncertain, and we may never seek such approvals, or if we do, we may never gain those approvals. Any adverse events in our clinical trials for a future product under development could negatively impact our products.

Competitor companies or hospitals may be able to take advantage of the EU rules permitting sales of unlicensed medicines for individual patients to sell competing products without a marketing authorization.

The EU medicines rules allow individual member states to permit the supply of a medicinal product without a marketing authorization to fulfill special needs, where the product is supplied in response to a bona fide unsolicited order, formulated in accordance with the specifications of a healthcare professional and for use by an individual patient under the healthcare professional's direct personal responsibility.

This may, in certain countries, also apply to products manufactured in a country outside the EU and imported to treat specific patients or small groups of patients. In addition, Advanced Therapy Medicinal Products do not need a marketing authorization if they are prepared on a non-routine basis and are used within the same EU member state in a hospital under the exclusive professional responsibility of a medical practitioner and in accordance with a medical prescription for a custom-made product for an individual patient (named-patient basis).

These exemptions could allow our competitors to make sales in the EU without having obtained a marketing authorization and without undergoing the expense of clinical trials, especially if those competitors have cell processing facilities in the relevant EU member state. Similarly, certain hospitals may be able to compete with us on the basis of these rules. Because any such sales would be made without a marketing authorization, there would be no need for the competitor company or hospital to refer to the clinical data in our marketing authorization dossiers, and so any data exclusivity protection that we may obtain for our products would not prevent such competing sales.

The current credit and financial market conditions may exacerbate certain risks affecting our business.

We rely upon third parties for certain aspects of our business, including collaboration partners, wholesale distributors, contract clinical trial providers, contract manufacturers and third-party suppliers. Because of the recent tightening of global credit and the

volatility in the financial markets, there may be a delay or disruption in the performance or satisfaction of commitments to us by these third parties, which could adversely affect our business.

We are dependent on our key manufacturing, quality and other management personnel and the loss of any of these individuals could harm our business.

Our success depends in large part upon the efforts of our key management and manufacturing and quality staff. The loss of any of these individuals, or our inability to attract and retain highly qualified scientific and management personnel in a timely manner, could materially and adversely affect our business and our future prospects. In the future, we may need to seek additional manufacturing and quality staff members. There is a high demand for highly trained manufacturing and quality personnel in our industry. We face competition for such personnel from other companies, research and academic institutions and other entities. We do not know whether we will be able to attract, train and retain highly qualified manufacturing and quality personnel in the future, which could have a material adverse effect on our business, financial condition and results of operations. A loss of one or more of our key personnel could severely and negatively impact our operations. Our key personnel are employed "at-will," and any of them may elect to pursue other opportunities at any time. We have no present intention of obtaining key man life insurance on any of our key management, manufacturing, quality or other personnel.

A cyber security incident could result in a loss of confidential data, give rise to remediation and other expenses, expose us to liability under HIPAA, consumer protection laws, or other common law theories, subject us to litigation and federal and state governmental inquiries, damage our reputation, and otherwise be disruptive to our business.

We collect and store sensitive information, including intellectual property and personally identifiable information, on our networks. The secure maintenance of this information is critical to our business operations. We have implemented multiple layers of security measures to protect this confidential data through technology, processes, and our people; we utilize current security technologies; and our defenses are monitored and routinely reviewed by internal and external parties. Despite these efforts, threats from malicious persons and groups, new vulnerabilities, and advanced new attacks against information systems create risk of cyber security incidents. There can be no assurance that we will not be subject to cyber security incidents that bypass our security measures, result in loss of personal health information or other data subject to privacy laws or disrupt our information systems or business. As a result, cyber security and the continued development and enhancement of our controls, processes and practices designed to protect our information systems from attack, damage or unauthorized access remain a priority for us. As cyber threats continue to evolve, we may be required to expend significant additional resources to continue to modify or enhance our protective measures or to investigate and remediate any cyber security vulnerabilities. The occurrence of any of these events could result in interruptions, delays, the loss, access, misappropriation, disclosure or corruption of data, liability under privacy, security and consumer protection laws or litigation under these or other laws, including common law theories, and subject us to federal and state governmental inquiries, any of which could have a material adverse effect on our financial position and results of operations and harm our business reputation.

Risks Related to Intellectual Property

We have no patent protection for Epicel.

We have no issued patents or pending patent applications relating to Epicel. While we attempt to protect our proprietary information as trade secrets through certain agreements with our employees, consultants, agents and other organizations to which we disclose our proprietary information, we cannot give any assurance that these agreements will provide effective protection for our proprietary information in the event of unauthorized use or disclosure of such information. If other cultured epidermal autografts are approved and marketed, we will be unable to prevent them from competing with Epicel in the marketplace. We expect that the presence of one or more competing products would reduce our market share and could negatively impact price levels and third party reimbursement policies for Epicel, any of which would materially affect our business.

Our issued patents relating to Carticel and MACI will expire soon and may be insufficient to protect our business.

We have issued patents in the United States and in certain foreign countries that relate to the combinations of chondrocytes and collagen membranes used in Carticel and MACI. However, the issued patents relating to Carticel are scheduled to expire by August of 2016 in the U.S. and by 2022 in Europe. Furthermore, the issued patents relating to MACI are scheduled to expire by August of 2016 in the U.S. and by August of 2017 in Europe. When these patents expire we may be subject to increased competition and our opportunity to establish or maintain product revenue could be substantially reduced or eliminated.

The patents we own may not be of sufficient scope or strength to provide us with significant commercial protection or commercial advantage, and competitors may be able to design around our patents or develop products that provide outcomes that are similar

to ours without infringing on our intellectual property rights. In addition, we cannot be certain that any of our pending patent applications will be issued or that the scope of the claims in our pending patent applications will not be significantly narrowed or determined to be invalid.

If our patents and proprietary rights do not provide substantial protection, then our business and competitive position will suffer.

Our success depends in large part on our ability to develop or license intellectual property rights to protect our proprietary products and technologies. This involves complex legal, scientific, and factual questions and uncertainties. We rely upon patent, trade secret, copyright and contract laws to protect proprietary technology and trademark law to protect brand identities. However, we cannot assure you that any patent applications filed by, assigned to, or licensed to us will be granted, and that the scope of any of our issued or licensed patents will be sufficiently broad to offer meaningful protection. In addition, our issued patents or patents licensed to us could be successfully challenged, invalidated, held to be unenforceable, or circumvented so that our patent rights would not create an effective competitive barrier. We also cannot assure you that the inventors of the patents and applications that we own or license were the first to invent or the first to file on the inventions, or that a third party will not claim ownership in one of our patents or patent applications. We cannot assure you that a third party does not have or will not obtain patents that dominate the patents we own or license now or in the future.

Patent law relating to the scope of claims in the biotechnology field is evolving and our patent rights in this country and abroad are subject to this uncertainty. For example, from time to time, the U.S. Supreme Court (Supreme Court), other federal courts, the U.S. Congress or the United States Patent and Trademark Office (USPTO) may change the standards of patentability and any such changes could have a negative impact on our business. There have been several cases involving “gene patents” and diagnostic claims that have been considered by the Supreme Court. A suit brought by multiple plaintiffs, including the American Civil Liberties Union (ACLU) against Myriad Genetics (Myriad) and the USPTO, could impact biotechnology and diagnostic patents. That case involves certain of Myriad’s U.S. patents related to the breast cancer susceptibility genes BRCA1 and BRCA2. The Federal Circuit court issued a written decision on July 29, 2011 that reversed the decision of the U.S. District Court for the Southern District of New York that Myriad’s composition claims to “isolated” DNA molecules cover unpatentable subject matter. The Federal Circuit court instead held that the breast cancer genes are patentable subject matter. Subsequently, on March 20, 2012, the Supreme Court issued a decision in Mayo Collaborative v. Prometheus Laboratories (Prometheus) a case involving patent claims directed to optimizing the amount of drug administered to a specific patient. According to that decision, Prometheus’ claims failed to add enough inventive content to the underlying correlations to allow the processes they describe to qualify as patent-eligible processes that apply natural laws. The Supreme Court subsequently granted certiorari in the Myriad case, vacated the judgment, and remanded the case back to the Federal Circuit court for further consideration in light of their decision in the Prometheus case. The Federal Circuit court heard oral arguments on July 20, 2012, and issued a decision on August 16, 2012. The Federal Circuit court reaffirmed its earlier decision and held that composition of matter claims directed to isolated nucleic acids are patent-eligible subject matter, but that method claims consisting of only abstract mental processes are not patent-eligible. On September 25, 2012, the ACLU filed a petition for a writ of certiorari asking the Supreme Court to review the Federal Circuit court’s decision with respect to the composition of matter claims. On November 30, 2012, the Supreme Court granted the petition and agreed to review the case. On June 13, 2013, the Supreme Court issued a decision in the Myriad case. According to the decision, claims directed to genomic DNA cover unpatentable subject matter. However, claims directed to cDNA are patent eligible subject matter.

On March 4, 2014, the USPTO issued a memorandum entitled “2014 Procedure For Subject Matter Eligibility Analysis Of Claims Reciting Or Involving Laws Of Nature/Natural Principles, Natural Phenomena, And/Or Natural Products”. This memorandum provides guidance to patent examiners for examining claims reciting laws of nature/natural principles, natural phenomena, and/or natural products for patent eligibility in view of the Supreme Court decisions in Prometheus and Myriad. The guidance indicates that claims reciting such natural subject matter, read as a whole, that do not significantly differ from such natural subject matter should be rejected as non-statutory subject matter. We cannot assure you that our patent portfolio or our efforts to seek patent protection for our technology and products will not be negatively impacted by the guidance issued by the USPTO, the decisions described above, rulings in other cases, or changes in guidance or procedures issued by the USPTO.

Congress directed the USPTO to study effective ways to provide independent, confirming genetic diagnostic test activity where gene patents and exclusive licensing for primary genetic diagnostic tests exist. This study will examine the impact that independent second opinion testing has on providing medical care to patients; the effect that providing independent second opinion genetic diagnostic testing would have on the existing patent and license holders of an exclusive genetic test; the impact of current practices on testing results and performance; and the role of insurance coverage on the provision of genetic diagnostic tests. The USPTO was directed to report the findings of the study to Congress and provide recommendations for establishing the availability of independent confirming genetic diagnostic test activity by June 16, 2012. On August 28, 2012, the Department of Commerce sent a letter to the House and Senate Judiciary Committee leadership updating them on the status of the genetic testing report. The letter stated in part: “Given the complexity and diversity of the opinions, comments, and suggestions provided by interested parties,

and the important policy considerations involved, we believe that further review, discussion, and analysis are required before a final report can be submitted to Congress." The USPTO issued a Request for Comments and Notice of Public Hearing on Genetic Diagnostic Testing on January 25, 2012, and held additional public hearings in February and March 2013. It is unclear whether the results of this study will be acted upon by the USPTO or result in Congressional efforts to change the law or process in a manner that could negatively impact our present or future patent portfolio.

There can be no assurance that the Supreme Court's decision in either the Myriad or Prometheus case will not have a negative impact on biotechnology patents generally or the ability of biotechnology companies to obtain or enforce their patents in the future. Such negative decisions by the Supreme Court could have a material adverse effect on our existing patent portfolio and our ability to protect and enforce our intellectual property in the future.

We also rely on trade secrets and un-patentable know-how that we seek to protect, in part, by confidentiality agreements with our employees, consultants, suppliers and licensees. These agreements may be breached, and we might not have adequate remedies for any breach. Our competitors may also independently develop technologies substantially equivalent or superior to ours. If this were to occur, our business and competitive position would suffer.

Given our patent position in regard to our products, if we are unable to protect the confidentiality of our proprietary information and know-how related to these products, our competitive position would be impaired and our business, financial condition and results of operations could be adversely affected.

Some of our technology, including our knowledge regarding the processing of our products, is unpatented and is maintained by us as trade secrets. In an effort to protect these trade secrets, we require our employees, consultants, collaborators and advisors to execute confidentiality agreements upon the commencement of their relationships with us. These agreements require that all confidential information developed by the individual or made known to the individual by us during the course of the individual's relationship with us be kept confidential and not disclosed to third parties. These agreements, however, may not provide us with adequate protection against improper use or disclosure of confidential information, and these agreements may be breached. A breach of confidentiality could affect our competitive position. In addition, in some situations, these agreements may conflict with, or be subject to, the rights of third parties with whom our employees, consultants, collaborators or advisors have previous employment or consulting relationships. Also, others may independently develop substantially equivalent proprietary information and techniques or otherwise gain access to our trade secrets.

Adequate remedies may not exist in the event of unauthorized use or disclosure of our confidential information. The disclosure of our trade secrets would impair our competitive position and could have a material adverse effect on our business, financial condition and results of operations.

Obtaining and maintaining our patent protection depends on compliance with various procedural, document submissions, 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 on any issued patent are due to be paid to the USPTO and foreign patent agencies in several stages over the lifetime of the patent. The USPTO and various foreign governmental patent agencies require compliance with a number of procedural, documentary, fee payment and other similar provisions during the patent application process. While an inadvertent lapse can in many cases be cured by payment of a late fee or by other means in accordance with the applicable rules, there are situations in which noncompliance can result in abandonment or lapse of the patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. Non-compliance events that could result in abandonment or lapse of a patent or patent application include, but are not limited to, failure to respond to official actions within prescribed time limits, non-payment of fees and failure to properly legalize and submit formal documents. If we fail to maintain the patents and patent applications covering our products or product candidates, our competitive position would be adversely affected.

With respect to MACI and ixmyelocel-T, if we are unable to obtain and enforce patents and to protect our trade secrets, others could use our technology to compete with us, which could limit opportunities for us to generate revenues by licensing our technology and selling products.

Our success will depend in part on our ability to obtain and enforce patents and maintain trade secrets in the United States and in other countries. If we are unsuccessful in obtaining and enforcing patents, our competitors could use our technology and create products that compete with our products, without paying license fees or royalties to us.

The preparation, filing, and prosecution of patent applications can be costly and time consuming. Our limited financial resources may not permit us to pursue patent protection of all of our technology and products throughout the world.

Even if we are able to obtain issued patents covering our technology or products, we may have to incur substantial legal fees and other expenses to enforce our patent rights in order to protect our technology and products from infringing uses. We may not have the financial resources to finance the litigation required to preserve our patent and trade secret rights.

A successful challenge to our trademarks could force us to rebrand Epicel, Carticel, or MACI.

We rely on our trademarks to distinguish our products from the products of our competitors, and have registered or applied to register a number of these trademarks. Third parties may challenge our use of the trademarks. In the event that our trademarks are successfully challenged, we could be forced to rebrand our products, which could result in loss of brand recognition and could require us to devote resources to advertising and marketing these new brands.

Intellectual property litigation could harm our business. We may be subject to patent infringement claims that could be costly to defend, which may limit our ability to use disputed technologies, and which could prevent us from pursuing research and development or commercialization of some of our products, require us to pay licensing fees to have freedom to operate and/or result in monetary damages or other liability for us.

The success of our business will depend significantly on our ability to operate without infringing patents and other proprietary rights of others. Our cell processing system and cell compositions utilize a wide variety of technologies and we can give no assurance that we have identified or can identify all inventions and patents that may be infringed by development and manufacture of our cell compositions. If the technology that we use infringes a patent held by others, we could be sued for monetary damages by the patent holder or its licensee, or we could be prevented from continuing research, development, and commercialization of products that rely on that technology, unless we are able to obtain a license to use the patent. The cost and availability of a license to a patent cannot be predicted, and the likelihood of obtaining a license at an acceptable cost would be lower if the patent holder or any of its licensees is using the patent to develop or market a product with which any of our existing product candidates or our products would compete. If we could not obtain a necessary license, we would need to develop or obtain rights to alternative technologies, which could prove costly and could cause delays in product development, or we could be forced to discontinue the development or marketing of any products that were developed using the technology covered by the patent.

Although we have not been subject to any filed infringement claims, patents could exist or could be filed which would prohibit or limit our ability to market our products or maintain our competitive position. In the event of an intellectual property dispute, we may be forced to litigate. Such litigation is typically protracted and the results are unpredictable. Intellectual property litigation would divert management's attention from developing our products and would force us to incur substantial costs regardless of whether we are successful. An adverse outcome could subject us to significant liabilities to third parties including treble damages and the opposing party's attorney fees, and force us to pay significant license fees and royalties or cease the development and sale of our products and processes.

We have hired and expect to continue to hire individuals who have experience in cell culture and cell based therapeutics and may have confidential trade secret or proprietary information of third parties. We caution these individuals not to use or reveal this third-party information, but we cannot assure you that these individuals will not use or reveal this third-party information. Thus, we could be sued for misappropriation of proprietary information and trade secrets. Such claims are expensive to defend and could divert our attention and could result in substantial damage awards and injunctions that could have a material adverse effect on our business, financial condition or results of operations.

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

Competitors may infringe our patents or misappropriate or otherwise violate our intellectual property rights. To counter infringement or unauthorized use, litigation may be necessary in the future to enforce or defend our intellectual property rights, to protect our trade secrets or to determine the validity and scope of our own intellectual property rights or the proprietary rights of others. Also, third parties may initiate legal proceedings against us to challenge the validity or scope of intellectual property rights we own or control. These proceedings can be expensive and time consuming. Many of our current and potential competitors have the ability to dedicate substantially greater resources to defend their intellectual property rights than we can. Accordingly, despite our efforts, we may not be able to prevent third parties from infringing upon or misappropriating our intellectual property.

Litigation could result in substantial costs and diversion of management resources, which could harm our business and financial results. In addition, in an infringement proceeding, a court may decide that a patent owned by or licensed to us is invalid or unenforceable, or may refuse to stop the other party from using the technology at issue on the grounds that our patents do not

cover the technology in question. An adverse result in any litigation proceeding could put one or more of our patents at risk of being invalidated, held unenforceable or interpreted narrowly.

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

If we infringe the rights of third parties we could be prevented from selling products, forced to pay damages, and defend against litigation.

If our products, methods, processes and other technologies infringe the proprietary rights of other parties, we could incur substantial costs and we may have to: obtain licenses, which may not be available on commercially reasonable terms, if at all; abandon an infringing product; redesign our products or processes to avoid infringement; stop using the subject matter claimed in the patents held by others; pay damages; and/or defend litigation or administrative proceedings which may be costly whether we win or lose, and which could result in a substantial diversion of our financial and management resources.

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 products that are the same as or similar to our products or product candidates, but that are not covered by the claims of the patents that we own or have exclusively licensed;
- We or any strategic partners might not have been the first to make the inventions covered by the issued patents or pending patent applications that we own or have exclusively licensed;
- We 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 not provide us with any competitive advantages, or may be held invalid or unenforceable as a result of legal challenges;
- Our competitors might conduct research and development activities in the U.S. and other countries that provide a safe harbor from patent infringement claims for certain research and development activities, as well as 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.

Others may challenge our patent or other intellectual property rights or sue us for infringement.

The use of our products and product candidates may expose us to product liability claims, and we may not be able to obtain adequate insurance. As a result, such claims could affect our earnings and financial condition.

We face an inherent business risk of exposure to product liability claims in the event that the manufacture and/or use of our products during clinical trials, or after commercialization, results in adverse events. Moreover, we derive the raw materials for our products from patients serving as their own donors, the production process is complex, and the handling requirements are specific, all of which increase the likelihood of quality failures and subsequent product liability claims. We may not be able to obtain or maintain product liability insurance on acceptable terms with adequate coverage or at all. If we are unable to obtain insurance, or if claims against us substantially exceed our coverage, then our business could be adversely impacted. Excessive insurance costs or uninsured claims would increase our operating loss and adversely affect our financial condition. Whether or not we are ultimately successful in any product liability litigation, such litigation could consume substantial amounts of our financial and managerial resources and could result in, among other things:

- Significant awards against us;
- Substantial litigation costs;
- Recall of the product;

- Injury to our reputation;
- Withdrawal of clinical trial participants; or
- Adverse regulatory action.

Any of these results could have a material adverse effect on our business, financial condition and results of operations.

Risks Related to an Investment in our Common Stock

We have identified a material weakness in our internal control over segregation of duties. If we fail to remediate this material weakness and implement and maintain proper and effective internal control over segregation of duties in the future, a material misstatement of our annual or interim financial statements will not be prevented or detected on a timely basis, which could harm our operating results, investors' views of us and, as a result, the value of our common stock.

We identified a material weakness in the operation of our internal controls over segregation of duties as of December 31, 2015. A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of our annual or interim financial statements will not be prevented or detected on a timely basis. The material weakness relates to the design of controls to mitigate segregation of duties conflicts in our financial management/ERP software. Specifically, our Controller had access to modules in the financial management software beyond necessary to perform the job of Controller, and the controls that were designed and implemented to be performed by the Controller to mitigate the incompatible duties of other financial personnel were ineffective. Thus, the material weakness impacted substantially all financial statement accounts and all financial statement assertions. While the material weakness did not result in any financial statement adjustments during the year ended December 31, 2015, it could result in misstatements to substantially all accounts and disclosures that would result in a material misstatement to the annual or interim consolidated financial statements that would not be prevented or detected. We have commenced efforts to remediate this material weakness through modification and removal of the controller's access to modules in the financial management software. However, if we cannot correct the material weakness we have identified, or if we experience other material weaknesses investor confidence and our stock price could be adversely affected. Further, if other material weaknesses or deficiencies in our internal controls exist and go undetected, our financial statements could contain material misstatements that, when discovered in the future, could cause us to fail to meet our future reporting obligations and cause the price of our common stock to decline.

The market price of the common stock of the combined company may be affected by factors different from those affecting the market price for our common stock in recent history.

Our business in recent history differs from that of the CTRM business, and our current combined business differs from recent history, and accordingly, the results of operations for the combined company may be affected by factors different from those affecting our results of operation in recent history. As a result, the market price for our stock may be impacted differently in the future by those factors than it is currently.

Our common stock price has been volatile and future sales of shares of common stock could have an adverse effect on the market price of such shares.

The market price of shares of our common stock has been volatile, ranging in closing price between $1.71 and $3.95 during the year ended December 31, 2015. The price of our common stock may continue to fluctuate in response to a number of events and factors, such as:

- Clinical trial results;
- The amount of our cash resources and our ability to obtain additional funding;
- Announcements of research activities, business developments, technological innovations or new products by us or our competitors;
- Entering into or terminating strategic relationships;
- Regulatory developments in both the United States and abroad;
- Disputes concerning patents or proprietary rights;
- Changes in our revenues or expense levels;
- Seasonal or other variations in patient demand for Carticel and Epicel;
- Public concern regarding the safety, efficacy or other aspects of the products or methodologies we are developing;
- News or reports from other stem cell, cell therapy or regenerative medicine companies;
- Reports by securities analysts;
- Status of the investment markets;
- Concerns related to management transitions; and

- Delisting from The NASDAQ Capital Market.

Any of these events may cause the price of our shares to fall, which may adversely affect our business and financing opportunities. In addition, the stock market in general and the market prices for biotechnology companies in particular have experienced significant volatility recently that often has been unrelated to the operating performance or financial conditions of such companies. These broad market and industry fluctuations may adversely affect the trading price of our common stock, regardless of our operating performance or prospects.

Our failure to meet the continued listing requirements of The NASDAQ Capital Market could result in a de-listing of our common stock.

If we fail to satisfy the continued listing requirements of The NASDAQ Capital Market, such as the corporate governance requirements or the minimum closing bid price requirement, NASDAQ may take steps to de-list our common stock. Such a de-listing would likely have a negative effect on the price of our common stock and would impair your ability to sell or purchase our common stock when you wish to do so. In the event of a de-listing, we would take actions to restore our compliance with NASDAQ's listing requirements, but we can provide no assurance that any such action taken by us would allow our common stock to become listed again, stabilize the market price or improve the liquidity of our common stock, prevent our common stock from dropping below the NASDAQ minimum bid price requirement or prevent future non-compliance with NASDAQ's listing requirements.

The sale of our common stock through future equity offerings may cause dilution and could cause the price of our common stock to decline.

In the year-ended December 31, 2014, we sold (i) an aggregate gross amount of approximately $7.1 million worth of shares of common stock pursuant to our At-the-Market Sales Agreement (ATM) with MLV (ii) an aggregate of approximately $3.7 million worth of shares of our common stock to Lincoln Park pursuant to the Lincoln Park Equity Line, and (iii) on September 17, 2014, we sold 15.8 million shares of common stock under a Form S-1 registration statement and pursuant to a prospectus first made available on September 11, 2014. The ATM, which as of December 31, 2015 had remaining capacity of approximately $7.8 million, allowed us to sell our common stock from time to time under a registration statement on Form S-3 filed in June 2011, pursuant to which we registered $100 million of our securities for public sale. The Form S-3 registration statement filed in June 2011 expired in July 2014. Additionally, pursuant to the Lincoln Park Equity Line we may direct Lincoln Park to purchase up to $15 million worth of shares of our common stock over a 30-month period generally in amounts up to 50 thousand shares of our common stock. As of December 31, 2015, we had remaining capacity of approximately $11.3 million worth of shares under the Lincoln Park Equity Line. However, there are certain factors, such as volume of trading in our common stock, our stock price and the ability to terminate the agreement with notice, which limit the amount that can be raised in a short period of time through the Lincoln Park Equity Line.

Sales of our common stock offered through future equity offerings may result in substantial dilution to the interests of other holders of our common stock. The sale of a substantial number of shares of our common stock to investors, or anticipation of such sales, could make it more difficult for us to sell equity or equity-related securities in the future at a time and at a price that we might otherwise wish to effect sales.

We do not anticipate paying dividends on our common stock, and accordingly, shareholders must rely on stock appreciation for any return on their investment.

We have never declared or paid cash dividends on our common stock and do not expect to do so in the foreseeable future. The declaration of dividends is subject to the discretion of our board of directors and will depend on various factors, including our operating results, financial condition, future prospects and any other factors deemed relevant by our board of directors. You should not rely on an investment in our company if you require dividend income from your investment in our company. The success of your investment will likely depend entirely upon any future appreciation of the market price of our common stock, which is uncertain and unpredictable. There is no guarantee that our common stock will appreciate in value.

Our Loan and Security Agreement contains restrictions that limit our flexibility in operating our business. We may be required to make a prepayment or repay the outstanding indebtedness earlier than we expect if a prepayment event or an event of default occurs, including a material adverse change with respect to us, which could have a materially adverse effect on our business.

The Loan and Security Agreement contains various covenants that limit our ability to engage in specified types of transactions. These covenants limit our ability to, among other things:

- convey, sell, lease or otherwise dispose of certain parts of our business or property;

- change the nature of our business;
- liquidate or dissolve;
- enter into certain change in control or acquisition transactions;
- incur or assume certain debt;
- grant certain types of liens on our assets;
- maintain certain collateral accounts;
- pay dividends or make certain distributions to our stockholders;
- make certain investments;
- enter into material transactions with affiliates;
- make or permit certain payments on subordinate debt; and
- become an "investment company" as defined under the Investment Company Act of 1940, as amended.

The restrictive covenants of the Loan and Security Agreement could cause us to be unable to pursue business opportunities that we or our stockholders may consider beneficial.

A breach of any of these covenants could result in an event of default under the Loan and Security Agreement. An event of default will also occur if, among other things, a material adverse change in our business, operations or condition occurs, which could potentially include negative results in clinical trials, or a material impairment of the prospect of our repayment of any portion of the amounts we owe under the Loan and Security Agreement occurs. In the case of a continuing event of default under the agreement, SVB could elect to declare all amounts outstanding to be immediately due and payable, proceed against the collateral in which we granted SVB a security interest under the Loan and Security Agreement, or otherwise exercise the rights of a secured creditor. Amounts outstanding under the Loan and Security Agreement are secured by all of our existing and future assets, excluding intellectual property, which is subject to a negative pledge arrangement.

We expect that our quarterly results of operations will fluctuate, and this fluctuation could cause our stock price to decline.

Our quarterly operating results are likely to fluctuate in the future. These fluctuations could cause our stock price to decline. The nature of our business involves variable factors, such as the timing of the research, development and regulatory pathways of our product candidates, which could cause our operating results to fluctuate. Due to the possibility of fluctuations in our revenues and expenses, we believe that quarter-to-quarter comparisons of our operating results are not a good indication of our future performance.

Efforts to comply with securities laws and regulations will increase our costs and require additional management resources, and we still may fail to comply.

As directed by Section 404 of the Sarbanes-Oxley Act of 2002, the Securities and Exchange Commission (SEC) adopted rules requiring public companies to include a report of management on their internal controls over financial reporting in their annual reports on Form 10-K. For the year ended December 31, 2015, we are no longer a smaller reporting company and therefore, the independent registered public accounting firm auditing our financial statements is required to attest to the effectiveness of our internal controls over financial reporting. If, in any year, we are unable to conclude that we have effective internal controls over financial reporting or if our independent registered public accounting firm is required to, but is unable to provide us with a report as to the effectiveness of our internal controls over financial reporting, investors could lose confidence in the reliability of our financial statements, which could result in a decrease in the value of our securities.

If our common stock becomes subject to the SEC's penny stock rules, broker-dealers may experience difficulty in completing customer transactions and trading activity in our securities may be adversely affected.

If at any time our securities are no longer listed on a national securities exchange, including The NASDAQ Stock Market, or we have net tangible assets of $5.0 million or less and our common stock has a market price per share of less than $5.00, transactions in our common stock will be subject to the SEC's "penny stock" rules. If our common stock becomes subject to the "penny stock" rules promulgated under the Securities Exchange Act of 1934, as amended, broker-dealers may find it difficult to effectuate customer transactions and trading activity in our securities may be adversely affected. For any transaction involving a penny stock, unless exempt, the rules require:

- That a broker or dealer approve a person's account for transactions in penny stocks; and
- The broker or dealer receives from the investor a written agreement to the transaction, setting forth the identity and quantity of the penny stock to be purchased.

In order to approve a person's account for transactions in penny stocks, the broker or dealer must:

- Obtain financial information and investment experience objectives of the person; and
- Make a reasonable determination that the transactions in penny stocks are suitable for that person and the person has sufficient knowledge and experience in financial matters to be capable of evaluating the risks of transactions in penny stocks.

The broker or dealer must also deliver, prior to any transaction in a penny stock, a disclosure schedule prescribed by the SEC relating to the penny stock market, which, in highlight form:

- Sets forth the basis on which the broker or dealer made the suitability determination; and
- That the broker or dealer received a signed, written agreement from the investor prior to the transaction.

Generally, brokers may be less willing to execute transactions in securities subject to the “penny stock” rules. This may make it more difficult for investors to dispose of our common stock and cause a decline in the market value of our stock.

Disclosure also has to be made about the risks of investing in penny stocks in both public offerings and in secondary trading and about the commissions payable to both the broker-dealer and the registered representative, current quotations for the securities and the rights and remedies available to an investor in cases of fraud in penny stock transactions. Finally, monthly statements have to be sent disclosing recent price information for the penny stock held in the account and information on the limited market in penny stocks.

Our corporate documents and Michigan law contain provisions that may make it more difficult for us to be acquired.

Our Board of Directors (Board) has the authority, without shareholder approval, to issue additional shares of preferred stock and to fix the rights, preferences, privileges and restrictions of these shares without any further vote or action by our shareholders. Michigan law contains a provision that makes it more difficult for a 10% shareholder, or its officers, to acquire a company. This authority, together with certain provisions of our charter documents, may have the effect of making it more difficult for a third party to acquire, or of discouraging a third-party from attempting to acquire, control of our company. This effect could occur even if our shareholders consider the change in control to be in their best interest. We have adopted a shareholder rights plan, the purpose of which is, among other things, to enhance our Board’s ability to protect shareholder interests and to ensure that shareholders receive fair treatment in the event any coercive takeover attempt of our company is made in the future. The shareholder rights plan could make it more difficult for a third party to acquire, or could discourage a third party from acquiring, our company or a large block of our company’s common stock.

Item 1B. ***Unresolved Staff Comments***

Not applicable.

Item 2. ***Properties***

We lease approximately 26,000 square feet in Ann Arbor, Michigan and 50,000 square feet in Cambridge, Massachusetts. In conjunction with the acquisition of the CTRM Business, we also assumed the leases for the facility in Kastrup, Denmark which was sublet in October 2015. The Ann Arbor lease agreement expires in April 2018 and the Cambridge lease expires in February 2022. The facilities include clean rooms, laboratories and office space. We believe that our facilities are adequate to meet our current needs. Additional facilities may be required to support expansion for research and development activities or to assume manufacturing operations that are currently fulfilled through contract manufacturing relationships.

Item 3. ***Legal Proceedings***

We are currently not party to any material legal proceedings, although from time to time we may become involved in disputes in connection with the operation of our business.

Item 4. ***Mine Safety Disclosures***

Not applicable.

PART II

Item 5. ***Market for Registrant's Common Equity, Related Shareholder Matters and Issuer Purchase of Equity Securities***

Our common stock is currently quoted on the NASDAQ Capital Market under the symbol "VCEL". The following table sets forth the high and low closing prices per share of common stock as reported on the NASDAQ Stock Market.

Price Range of Common Stock

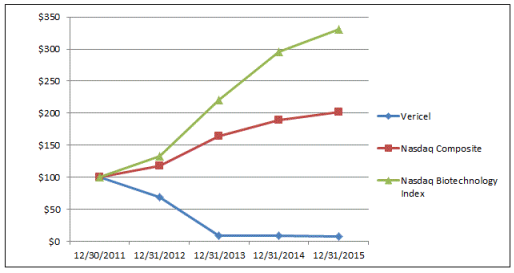
	High	Low
Year ended December 31, 2014		
First Quarter	$ 6.49	$ 3.31
Second Quarter	5.05	3.51
Third Quarter	4.08	2.61
Fourth Quarter	3.04	2.68
Year ended December 31, 2015		
First Quarter	$ 3.95	$ 2.75
Second Quarter	3.76	3.02
Third Quarter	3.61	2.40
Fourth Quarter	2.71	1.71

As of February 29, 2016 there were approximately 171 holders of record of the common stock. We have never paid any cash dividends on our common stock and we do not anticipate paying such cash dividends in the foreseeable future. We currently anticipate that we will retain all future earnings, if any, for use in the development of our business.

Stock Performance Graph

The following graph shows the total stockholder return of an investment of $100 in cash on December 31, 2011 through December 31, 2015 for (i) our common stock, (ii) the NASDAQ Composite Index (U.S.) and (iii) the NASDAQ Biotechnology Index. Pursuant to applicable SEC rules, all values assume reinvestment of the full amount of all dividends, however, no dividends have been declared on our common stock to date. The stockholder return shown on the graph below is not necessarily indicative of future performance, and we do not make or endorse any predictions as to future stockholder returns.

Stock Price Comparison



Equity Compensation Plan Information as of December 31, 2015

The following table sets forth information as of December 31, 2015 with respect to compensation plans (including individual compensation arrangements) under which equity securities are authorized for issuances:

	Number of Securities to be Issued upon Exercise of Outstanding Options, Warrants and Rights		Weighted Average Exercise Price of Outstanding Options, Warrants and Rights	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans[2]
Equity compensation plans approved by security holders (employees and directors)[1]	2,523,400	$	6.36	1,962,168
Employee stock purchase plan[1]	63,193	$	2.19	936,807

(1) The material features of these securities are described in note 7 of the Consolidated Financial Statements.

(2) Shares issuable under the 2009 Omnibus Incentive Plan.

Recent Sales of Unregistered Securities

The following is a summary of all securities that we have sold during the year ended December 31, 2015 without registration under the Securities Act of 1933, as amended (the Securities Act).

On December 18, 2015, we entered into a Securities Exchange Agreement (the Exchange Agreement) with Stonepine Capital, LP (Stonepine), pursuant to which Stonepine exchanged an aggregate of 1,250,000 shares of our common stock for 1,250 shares of our Series A Convertible Preferred Stock (the Exchange). Upon the closing of the Exchange on December 23, 2015, we issued the Class A Convertible Preferred Stock to Stonepine without registration under the Securities Act in reliance on the exemption from registration contained in Section 3(a)(9) of the Securities Act.

Issuer Purchases of Equity Securities

There were no repurchases of shares of common stock made during the year ended December 31, 2015.

Item 6. ***Selected Financial Data***

The data for each of the five years in the period ended December 31, 2015 are derived from our Consolidated Financial Statements. The selected historical financial data for the financial position of our Company as of December 31, 2015 and 2014 and the results of their operations for each of the three years in the period ended December 31, 2015 presented below should be read together with our consolidated financial statements and the notes to those statements and “Item 7 Management’s Discussion and Analysis of Financial Condition and Results of Operations,” included elsewhere in this Form 10-K.

(In thousands, except per share amounts)	Year Ended December 31, 2015	2014	2013	2012	2011
Revenues:					
Product sales[a]	$ 51,168	$ 28,796	$ 19	$ 21	$ 18
Total revenues	51,168	28,796	19	21	18
Costs and expenses:					
Cost of product sales[a]	26,470	17,293	4	6	4
Gross profit	24,698	11,503	15	15	14
Research and development	18,890	21,263	15,104	26,025	21,330
Selling, general and administrative	22,479	13,774	5,875	7,750	7,724
Total operating expenses	41,369	35,037	20,979	33,775	29,054
Loss from operations	(16,671)	(23,534)	(20,964)	(33,760)	(29,040)
Other income (expense):					
(Increase) decrease in fair value of warrants[b]	324	(27)	5,337	4,248	9,329
Bargain purchase gain[c]	—	3,473	—	—	—
Foreign currency translation gain (loss)	(67)	152	—	—	—
Interest income	36	24	16	50	53
Other income (expense)	47	(2)	—	—	—
Interest expense	(9)	(6)	(11)	(12)	(10)
Total other income (expense)	331	3,614	5,342	4,286	9,372
Net loss	$ (16,340)	$ (19,920)	$ (15,622)	$ (29,474)	$ (19,668)
Net loss per share attributable to common shareholders (Basic and Diluted)	$ (0.97)	$ (2.23)	$ (6.95)	$ (16.25)	$ (10.18)

(a) Revenue from commercial operations began in June 2014 following the acquisition of the CTRM business. Prior to June 2014, we were a development stage entity.

(b) Fluctuations in the fair value of the warrants are due to the reduction in the time to maturity and changes in our stock price.

(c) The bargain purchase gain is a result of the CTRM business acquisition.

(In thousands, except per share amounts)	December 31, 2015	2014	2013	2012	2011
Cash	$ 14,581	$ 30,343	$ 8,059	$ 13,638	$ 5,530
Working capital (deficit)	15,235	29,661	3,155	8,331	(14,495)
Property and equipment, net	4,049	2,892	739	1,188	1,564
Total assets	34,309	47,579	9,215	15,178	7,739
Total liabilities	12,179	11,938	5,321	5,665	20,710
Total shareholders' equity (deficit)	22,130	35,641	3,894	(32,100)	(12,971)

Item 7. ***Management's Discussion and Analysis of Financial Condition and Results of Operations***

Safe Harbor Statement Under The Private Securities Litigation Reform Act of 1995

Our reports, filings and other public announcements contain certain statements that describe our management's beliefs concerning future business conditions, plans and prospects, growth opportunities and the outlook for our business and the electric transmission industry based upon information currently available. Such statements are "forward-looking" statements within the meaning of the Private Securities Litigation Reform Act of 1995. Wherever possible, we have identified these forward-looking statements by words such as "will," "may," "anticipates," "believes," "intends," "estimates," "expects," "projects" and similar phrases. These forward-looking statements are based upon assumptions our management believes are reasonable. Such forward-

looking statements are subject to risks and uncertainties which could cause our actual results, performance and achievements to differ materially from those expressed in, or implied by, these statements, including, among others, the risks and uncertainties listed in this report under “Item 1A Risk Factors” and in our other reports filed with the SEC from time to time.

Because our forward-looking statements are based on estimates and assumptions that are subject to significant business, economic and competitive uncertainties, many of which are beyond our control or are subject to change, actual results could be materially different and any or all of our forward-looking statements may turn out to be wrong. Forward-looking statements speak only as of the date made and can be affected by assumptions we might make or by known or unknown risks and uncertainties. Many factors mentioned in our discussion in this report will be important in determining future results. Consequently, we cannot assure you that our expectations or forecasts expressed in such forward-looking statements will be achieved. Except as required by law, we undertake no obligation to publicly update any of our forward-looking or other statements, whether as a result of new information, future events, or otherwise.

Overview

Vericel Corporation is a leader in developing patient-specific expanded cellular therapies for use in the treatment of patients with severe diseases and conditions. We market two autologous cell therapy products in the United States: Carticel® (autologous cultured chondrocytes), an autologous chondrocyte implant for the treatment of cartilage defects in the knee, and Epicel® (cultured epidermal autografts), a permanent skin replacement for the treatment of patients with deep-dermal or full-thickness burns comprising greater than or equal to 30 percent of total body surface area. We are also developing MACI™, a third-generation autologous chondrocyte implant for the treatment of cartilage defects in the knee, and ixmyelocel-T, a patient-specific multicellular therapy for the treatment of advanced heart failure due to ischemic dilated cardiomyopathy.

Acquisition of Sanofi’s CTRM Business

On May 30, 2014, we completed the acquisition of Sanofi’s Cell Therapy and Regenerative Medicine (CTRM) business, certain assets, including all of the outstanding equity interests of Genzyme Biosurgery ApS (now known as Vericel Denmark ApS)(the Danish subsidiary), a wholly-owned subsidiary of Sanofi and over 250 patents and patent applications of the seller and certain of its subsidiaries and assumed certain liabilities for purposes of acquiring a portion of the CTRM business which included Carticel, MACI and Epicel (the CTRM Transaction).

Concurrent with the closing of the CTRM Transaction, we and Sanofi entered into (i) certain IP assignment and license agreements to effect the transfer and license of the intellectual property related to the CTRM Business assigned and/or licensed to us, (ii) certain assignment and assumption of lease agreements for each of the real property leases being assigned to us, and (iii) transition services and transition supply agreements.

See Note 4 “Acquisitions” and Note 5, “Restructuring” of the Consolidated Financial Statements for additional information.

Manufacturing

We have a cell-manufacturing facility in Cambridge, Massachusetts which is used for U.S. manufacturing and distribution of Carticel, Epicel manufacturing and also manufactured MACI for the SUMMIT study conducted for approval in Europe. We also operate a centralized cell manufacturing facility in Ann Arbor, Michigan. The Ann Arbor facility supports the current open label extension portion of the ixCELL-DCM clinical trial being conducted in the United States and Canada and we believe we have sufficient capacity, with minor modifications, to supply our early commercialization requirements.

Product Portfolio

Our approved and marketed products include three approved autologous cell therapy products: Carticel (autologous cultured chondrocytes), a first-generation product for autologous chondrocyte implantation (ACI) currently marketed in the U.S., Epicel (cultured epidermal autografts), a permanent skin replacement for full thickness burns in adults and pediatrics with greater than or equal to 30% of total body surface area (TBSA) also currently marketed in the U.S, and MACI (matrix-applied characterized autologous cultured chondrocytes), a third-generation ACI product approved in Europe and for which a BLA is under review by the FDA. Our product candidate portfolio also includes ixmyelocel-T, a patient-specific multicellular therapy currently in development for the treatment of advanced heart failure due to ischemic dilated cardiomyopathy (DCM). We completed enrolling and treating patients in our Phase 2b ixCELL-DCM study in February 2015 and on March 10, 2016 announced the trial had met its primary endpoint of reduction in clinical cardiac events and that incidence of adverse events, including serious adverse events, in patients treated with ixmyelocel-T was comparable to patients in the placebo group.

Carticel

Carticel, a first-generation ACI product for the treatment and repair of cartilage defects in the knee, is the first and currently the only FDA-approved autologous cartilage repair product. Carticel is indicated for the repair of symptomatic cartilage defects of the femoral condyle (medial, lateral or trochlea) caused by acute or repetitive trauma, in patients who have had an inadequate response to a prior arthroscopic or other surgical repair procedure such as debridement, microfracture, drilling/abrasion arthroplasty, or osteochondral allograft/autograft. Carticel received a Biologics License Application (BLA) approval in 1997 and is currently marketed in the U.S. It is generally used on patients with larger lesions (greater than 3 cm^2).

In the U.S., we focus net sales of Carticel on the sports-injury-targeted orthopedic physician target audience, which is very concentrated, with 60% of the current Carticel business originating from 25% of this audience, or approximately 110 physicians. We currently have a 21-person field force calling on this sports-injury targeted orthopedic physician audience. In the year ended December 31, 2015, net revenues were $35.2 million for Carticel.

Epicel

Epicel (cultured epidermal autografts) is a permanent skin replacement for full thickness burns greater than or equal to 30% of TBSA. Epicel is regulated by the CBER under medical device authorities, and is the only FDA-approved autologous epidermal product available for large total surface area burns. Epicel was designated as a HUD in 1998 and an HDE application for the product was submitted in 1999. HUDs are devices that are intended for diseases or conditions that affect fewer than 4,000 individuals annually in the United States. Under an HDE approval, a HUD cannot be sold for an amount that exceeds the cost of research and development, fabrication and distribution unless certain conditions are met. Currently, fewer than 100 patients are treated with Epicel in the U.S. each year. In the year ended December 31, 2015, net revenues were $15.2 million for Epicel.

A HUD is eligible to be sold for profit after receiving HDE approval if the device meets certain eligibility criteria, including where the device is intended for the treatment of a disease or condition that occurs in pediatric patients and such device is labeled for use in pediatric patients. If the FDA determines that a HUD meets the eligibility criteria, the HUD is permitted to be sold for profit as long as the number of devices distributed in any calendar year does not exceed the annual distribution number (ADN). The ADN is defined as the number of devices reasonably needed to treat a population of 4,000 individuals per year in the United States.

On February 18, 2016, the FDA approved the Company's HDE supplement to revise the labeled indications of use to specifically include pediatric patients and to add pediatric labeling. The revised product label also now specifies that the probable benefit of Epicel, mainly related to survival, was demonstrated in two Epicel clinical experience databases and a physician-sponsored study comparing outcomes in patients with massive burns treated with Epicel relative to standard care. Due to the change in the label to include use in pediatric patients, Epicel is no longer subject to the HDE profit restrictions. In conjunction with meeting the pediatric eligibility criteria, the FDA has determined the the ADN number for Epicel is 360,400.

We currently have a 4-person field force calling upon dedicated burn centers.

MACI

MACI is a third-generation ACI product for the treatment of focal chondral cartilage defects in the knee. MACI received marketing authorization in Europe in July 2013 by meeting the requirements of the Advanced Therapy and Medicinal Product (ATMP) guidelines. MACI had been commercially available in the European Union (EU) since 1998. As part of the June 2014 restructuring we temporarily suspended sales of MACI in August 2014, primarily due to low utilization and an unfavorable pricing environment. We believe that MACI has significant revenue potential in the U.S., if approved and reimbursed. On March 4, 2016, the FDA accepted our BLA seeking approval to market MACI as an autologous cellular treatment for symptomatic cartilage defects of the knee. The FDA provided a PDUFA (Prescription Drug User Fee Act) goal date of January 3, 2017. In addition, the FDA communicated that it is not currently planning to hold an advisory committee meeting to discuss the application.

MACI was obtained by Sanofi by acquiring Verigen AG (Verigen) in 2005. As part of Sanofi's acquisition of Verigen, Sanofi agreed to make cash payments to Verigen upon the achievement of developmental milestones relating to regulatory and commercialization of MACI in the United States. In connection with our acquisition of the CTRM business, we agreed that if we further developed MACI in the U.S., we would be obligated to pay these milestone payments. During the third quarter of 2014, at our request, Sanofi entered into a settlement agreement with the former shareholders of Verigen whereby these shareholders agreed to discharge all obligations related to these MACI milestone payments in exchange for a one-time cash payment of €2.5 million (approximately $3.2 million). We paid this amount in full in 2014.

Ixmyelocel-T

Our preapproval stage portfolio includes ixmyelocel-T, a unique patient-specific multicellular therapy derived from an adult patient's own bone marrow which utilizes our proprietary, highly automated and scalable manufacturing system. Our proprietary cell manufacturing process significantly expands the mesenchymal stromal cells (MSCS) and M2-like anti-inflammatory macrophages in the patient's bone marrow mononuclear cells while retaining many of the hematopoietic cells. These cell types are known to regulate the immune response and play a key role in tissue repair and regeneration by resolving pathologic inflammation, promoting angiogenesis, and remodeling ischemic tissue. The novelty and advantage of using ixmyelocel-T is the expansion of a unique combination of cell populations, including MSCS and M2-like macrophages, which secrete a distinct combination of angiogenic and regenerative factors, and possess the ability to remain anti-inflammatory in the face of inflammatory challenge.

Our lead clinical development program for ixmyelocel-T is focused on severe, chronic ischemic cardiovascular diseases. We are currently conducting the open label extension portion of the Phase 2b ixCELL-DCM study, which is a randomized, double-blind, placebo-controlled clinical trial for patients with advanced heart failure due to ischemic DCM. Ixmyelocel-T has been granted a U.S. Orphan Drug designation by the FDA for the treatment of DCM. We also have an ongoing ixmyelocel-T clinical program for the treatment of craniofacial reconstruction and have conducted clinical studies for the treatment of critical limb ischemia.

The ongoing Phase 2b ixCELL-DCM clinical study has treated 114 patients at 28 sites in the U.S. and Canada. We completed enrolling and treating patients in February, 2015. Patients were followed for 12 months for the primary efficacy endpoint of major adverse cardiovascular events, defined as all-cause deaths, all-cause hospitalizations, and unplanned outpatient or emergency department visits for IV treatment of acute worsening heart failure. Secondary endpoints include clinical, functional, structural, symptomatic, quality of life, and biomarker measures at 3, 6 and 9 months. On March 10, 2016, we announced the trial had met its primary endpoint of reduction in clinical cardiac events and that incidence of adverse events, including serious adverse events, in patients treated with ixmyelocel-T was comparable to patients in the placebo group. Because the trial met the primary endpoint, patients who had been assigned to the placebo group or randomized to ixmyelocel-T in the double-blind portion of the trial but did not receive ixmyelocel-T will be offered the option to receive treatment.

Results of Operations

Net Loss

Our net loss for the year ended December 31, 2015 totaled $16.3 million or $0.97 per share. Our net loss for the year ended December 31, 2014 totaled $19.9 million or $2.23 per share, Results for the year ended December 31, 2014 include only seven months of operating results of the CTRM Business. The 2014 results below include restructuring charges in the U.S. and Denmark of $3.0 million of which $2.5 million were recorded in cost of product sales and $0.5 million was recorded in selling, general and administrative expenses, other expenses for our discontinued Denmark business of $0.4 million and a bargain purchase gain of approximately $3.5 million. We did not have commercial operations for the year ended December 31, 2013 as we were a development stage entity. Our net loss for the year ended December 31, 2013 totaled $15.6 million or $6.95 per share.

	Year Ended December 31,		
(In thousands)	**2015**	**2014**	**2013**
Net revenues	$ 51,168	$ 28,796	$ 19
Cost of product sales	26,470	17,293	4
Gross profit	24,698	11,503	15
Total operating expenses	41,369	35,037	20,979
Loss from operations	(16,671)	(23,534)	(20,964)
Other income (expense)	331	141	5,342
Bargain purchase gain	—	3,473	—
Total other income	331	3,614	5,342
Net loss	$ (16,340)	$ (19,920)	$ (15,622)

Net Revenues

Net revenues (comprised of gross revenue from sales net of a provision for rebates and cash discounts) for the years ended December 31, 2015, 2014 and 2013 are shown below.

	Year Ended December 31,		
Revenue by product (In thousands)	**2015**	**2014**	**2013**
Carticel	$ 35,203	$ 22,267	$ —
Epicel	15,242	5,989	—
Bone Marrow	714	354	—
MACI	9	186	—
Other	—	—	19
	$ 51,168	$ 28,796	$ 19

Net revenues (which includes for the year ended December 31, 2014 reflect only seven months of results from commercial operations of the CTRM Business. Period comparisons for net revenues are not yet meaningful.

We did not have commercial operations for the year ended December 31, 2013 as we were a development stage entity. Period comparisons for net revenues are not meaningful.

Seasonality. Carticel revenue is subject to seasonal fluctuations with stronger sales occurring in the fourth quarter and second quarter due to a number of factors including insurance copay limits and the time of year patients prefer to start rehabilitation. Over the last five years, the percentage of annual sales by quarter has ranged as follows: first quarter, 20% to 24%; second quarter, 24% to 26%; third quarter, 21% to 23%; and fourth quarter, 29% to 33%. During 2015, the percentage of annual sales by quarter was as follows: 20.2% in the first quarter; 25.7% in the second quarter; 22.0% in the third quarter; and 32.1% in the fourth quarter. Epicel revenue is also subject to seasonal fluctuations mostly associated with the use of heating elements during the colder months, with stronger sales occurring in the winter months of the first and fourth quarters, and weaker sales occurring in the hot summer months of the third quarter. However, in any single year, this trend can be absent due to the extreme variability inherent with Epicel's low patient volume of fewer than 100 patients per year. Over the last five years, the percentage of annual sales by quarter has ranged as follows: first quarter, 27%; second quarter, 25%; third quarter, 20%; and fourth quarter, 28%. The variability between the same quarters in consecutive years has been as high as 10% of the annual volume. While the number of patients treated per year remains low, we expect these large swings in revenue in some quarters to continue. These seasonal trends have caused and will likely continue to cause, fluctuations in our quarterly results, including fluctuations in sequential revenue growth rates.

Gross Profit and Gross Profit Ratio

	Year Ended December 31,		
(In thousands)	**2015**	**2014**	**2013**
Gross profit	$ 24,698	$ 11,503	$ 15
Gross profit %	48.3%	39.9%	78.9%

Gross profit increased for the year ended December 31, 2015 compared to 2014 primarily due to $2.5 million of restructuring expenses recognized in 2014 as a result of the CTRM business acquired in May 2014. We did not have commercial operations for the year ended December 31, 2013 as it was a development stage entity and therefore, period comparisons for gross profit and gross profit ratio are not meaningful.

Research and Development Costs

	Year Ended December 31,		
(In thousands)	**2015**	**2014**	**2013**
Research and development costs	$ 18,890	$ 21,263	$ 15,104

The following table summarizes the approximate allocation of cost for our research and development projects:

	Year Ended December 31,		
(In thousands)	**2015**	**2014**	**2013**
Dilated Cardiomyopathy	$ 8,937	$ 15,099	$ 7,881
Critical Limb Ischemia	—	801	7,223
MACI	5,497	3,752	—
Carticel	2,798	1,008	—
Epicel	1,658	603	—
Total research and development expenses	$ 18,890	$ 21,263	$ 15,104

Research and development expenses for the year ended December 31, 2015 were $18.9 million compared to $21.3 million for the year ended December 31, 2014. The decrease in research and development expenses is due to lower costs incurred for the ixCELL-DCM study, which completed enrollment in January 2015; a $3.2 million payment in 2014 to the former shareholders of Verigen whereby these shareholders agreed to discharge all obligations related to these MACI milestone payments in exchange for a one-time cash payment; and the canceled Critical Limb Ischemia study. The decrease was offset by additional research, development and regulatory costs incurred for the MACI BLA submission which included a filing fee of $2.4 million paid in 2015 to the FDA and other regulatory consulting expenses in addition to expenses incurred for the HDE supplement submission to obtain an exemption from the profit prohibition and to revise the labeled indications for use of Epicel.

Research and development expenses for the year ended December 31, 2014 were $21.3 million versus $15.1 million for the same period in 2013. The increase in research and development expenses resulted from $7.2 million in increased expenses for the ixCELL-DCM clinical trial, $3.8 million expenses for MACI (including $3.2 million for the Verigen agreement), $0.6 million of expenses for Epicel, and $1.0 million of expenses for Carticel, all of which are offset by a $6.4 million reduction in the CLI clinical trial expenses. DCM trial expenses increased in the year ended December 31, 2014 versus 2013 since most patients were enrolled and treated in 2014. With respect to CLI, we completed the trial in early 2014 and as a result, expenses declined.

Selling, General and Administrative Costs

	Year Ended December 31,		
(In thousands)	**2015**	**2014**	**2013**
Selling, general and administrative costs	$ 22,479	$ 13,774	$ 5,875

Selling, general and administrative expenses for the years ended December 31, 2015 and 2014 were $22.5 million and $13.8 million, respectively. The increase is primarily due to an increase in sales and marketing expenses of $6.6 million for the full year in 2015 compared to 2014 which reflects only seven months of selling and marketing expenses from commercial operations of the CTRM Business. In addition, an increase of $2.0 million for general and administration expenses was due to higher personnel related expenses offset by lower consulting expenses.

Selling, general and administrative expenses for the years ended December 31, 2014 and 2013 were $13.8 million and $5.9 million, respectively. The increase in expenses is primarily due to approximately $5.4 million in sales and marketing expenses from the CTRM Business, approximately $1.6 million in increased information technology, legal, consulting and personnel costs related to integrating and managing the CTRM Business in the U.S., an increase of approximately $0.5 million in restructuring charges, and $1.4 million in general administrative costs from the Danish subsidiary. Neither the CTRM Business nor the Danish operations were part of our business in 2013.

Other Income (Expense)

(In thousands)	Year Ended December 31, 2015	2014	2013
(Increase) decrease in fair value of warrants	$ 324	$ (27)	$ 5,337
Bargain purchase gain	—	3,473	—
Foreign currency translation gain (loss)	(67)	152	—
Interest income	36	24	16
Other income (expense)	47	(2)	—
Interest expense	(9)	(6)	(11)
Total other income (expense)	$ 331	$ 3,614	$ 5,342

The change in other income and expense for the year ended December 31, 2015 compared to 2014 is due primarily to the change in warrant value as a result of the decrease in our stock price, the reduction in the time to maturity and the January and December 2010 Class A warrants which expired. Fluctuations in the fair value of the warrants in future periods could result in significant non-cash adjustments to the condensed consolidated financial statements, however, any income or expense recorded will not impact our cash, operating expenses or cash flow. The bargain purchase gain of $3.5 million for the year ended December 31, 2014 is associated with the acquisition of the CTRM Business on May 30, 2014. The change in foreign currency translation is due to the U.S. dollar and its impact on intercompany balances with the Danish subsidiary. We suspended commercial operations in Denmark in 2015.

The change in other income and expense for the year ended December 31, 2014 compared to 2013 is primarily due to the bargain purchase gain of $3.5 million recognized in 2014.

Stock Compensation

Non-cash stock-based compensation expense included in cost of goods sold, research and development expenses and general, selling and administrative expenses is summarized in the following table:

(in thousands)	Years Ended December 31, 2015	2014	2013
Cost of goods sold	$ 308	$ —	$ —
Research and development	555	197	75
General, selling and administrative	1,884	642	851
Total non-cash stock-based compensation expense	$ 2,747	$ 839	$ 926

The increase in stock-based compensation expense is due primarily to an increase in options granted in the year ended December 31, 2015 as compared to the year ended December 31, 2014 due to an increase in the number of employees as a result of the acquisition of the CTRM business.

Non-cash stock-based compensation expense for the years ended December 31, 2014 and 2013 were consistent.

Liquidity and Capital Resources

We are currently focused on utilizing our technology to identify, develop and commercialize innovative therapies that enable the body to repair and regenerate damaged tissues and organs to restore normal structure and function. Until such time as we satisfy, if at all, applicable regulatory approval requirements for ixmyelocel-T and MACI, we expect the sales of Carticel and Epicel therapies to constitute nearly all of our product sales revenues. Additionally, we are focusing significant resources to grow our CTRM business.

Notwithstanding the net proceeds of approximately $37.5 million we received from our September 2014 public offering and the availability of funds under the SVB Facility, we expect that we will require substantial additional capital resources to complete the development of ixmyelocel-T for the treatment of advanced heart failure due to ischemic DCM and for other strategic opportunities.

We have raised significant funds in order to complete our product development programs, and complete clinical trials needed to market and commercialize our products. To date, we have financed our operations primarily through public and private sales

of our equity securities. While we believe that, based on our current cash on hand, we are well positioned to sustain operations twelve months beyond December 31, 2015, if actual results differ from our projections, we may need to access additional capital. We have access to certain amounts of financing through an agreement with Lincoln Park Capital Fund, LLC (Lincoln Park). We may direct Lincoln Park to purchase up to $15.0 million worth of shares of our common stock over a 30-month period generally in amounts up to 50,000 shares of our common stock on certain business days under a Purchase Agreement. However, there are certain factors, such as volume of trading in our common stock and our stock price, which limit the amount that can be raised in a short period of time. The extent to which we rely on the Lincoln Park Equity Line as a source of funding will depend on a number of factors, including the prevailing market price of our common stock and the extent to which we are able to secure working capital from other sources. The remaining capacity under this agreement is $11.3 million as December 31, 2015.

At December 31, 2015 there was approximately $7.8 million of net capacity remaining on the At-the-Market Sales Agreement with MLV & Co. LLC (formerly McNicoll, Lewis & Vlak), which allowed us to sell our common stock from time to time under a registration statement on Form S-3 filed in June 2011, pursuant to which we registered $100 million of our securities for public sale. The Form S-3 registration statement filed in June 2011 expired in July 2014. If we choose to access the remaining capacity, we will file an updated Form S-3 registration statement.

Our cash totaled $14.6 million at December 31, 2015. The primary uses of cash included $13.3 million for our operations and working capital requirements. This use of funds was fueled largely by our operating loss reduced by stock compensation expense of $2.7 million as a result of an increase in personnel, depreciation and amortization expense of $1.6 million as a result of required capital expenditures in conjunction with the purchase of the CTRM business, $1.7 million in accounts payable primarily related to timing of payments and expenses incurred since the CTRM business has been fully integrated, and inventory provision of $0.6 million offset by a change in fair value of warrants of $0.3 million.

The change in cash used for investing activities is the result of material property plant and equipment purchases of $2.4 million primarily for purchases in connection with the integration of the CTRM business through December 31, 2015.

The change in cash provided from financing activities is the result of the September 2014 equity raise as well as Lincoln Park and ATM activity in 2014, all of which did not occur in the year ended December 31, 2015.

As of December 31, 2015 we had $12.0 million of cash deposited into an Insured Cash Sweep (ICS) program which is administered by Bank of New York Mellon. This program maximizes our Federal Deposit Insurance Company (FDIC) coverage by dividing our ICS funds into amounts under the standard FDIC maximum and places these amounts with other ICS Network member banks (each an FDIC-insured institute). These funds are placed in savings accounts at the member banks earning interest while still maintaining insurance coverage.

On March 8, 2016, we entered into a $15.0 million debt financing with Silicon Valley Bank (SVB). The debt financing consists of a $3.0 million term loan available immediately upon the closing, $2.0 million term loan available upon the FDA's approval of the MACI BLA and up to $10.0 million revolving line of credit. The term loans are interest only (indexed to Wall Street Journal (WSJ) Prime plus 0.75%) until March 1, 2017 followed by 36 equal monthly payments of principal plus interest maturing February 1, 2020. The revolving credit is limited to a borrowing base calculated using eligible accounts receivable and maturing March 8, 2018 with an interest rate indexed to WSJ Prime plus 0.25% up to 0.75%. Monthly, we must remain in compliance with an adjusted quick ratio greater than or equal to 1.10 to 1.0. The adjusted quick ratio is the ratio of (a) unrestricted cash and cash equivalents and net billed accounts receivable to (b) current liabilities minus the current portion of deferred revenue and warrant liabilities.

While we believe that, based on our current cash on hand and the funds available under our credit facility, we are well positioned to sustain operations twelve months beyond December 31, 2015, if actual results differ from our projections or if we undertake additional development of ixmyelocel-T or pursue other strategic opportunities, we may need to access additional capital. Actual cash requirements may differ from projections and will depend on many factors, including continued scientific progress in our research and development programs, the scope and results of clinical trials, the time and costs involved in obtaining regulatory approvals, the costs involved in filing, prosecuting and enforcing patents, competing technological and market developments, costs of possible acquisition or development of complementary business activities, and the cost of product launch and commercialization of newly approved products. If MACI receives the required FDA approvals, we may need to raise additional capital in anticipation of introduction of MACI in the U.S. markets.

Contractual Obligations

We lease facilities in Ann Arbor, Michigan; Cambridge, Massachusetts and Kastrup, Denmark. On March 8, 2016, we amended our current lease in Cambridge to extend the terms until March 2022. In addition to the property leases, we also lease an offsite warehouse, various vehicles and computer equipment. The purchase commitments represents the obligations for a long-term supply

agreement with Matricel GmbH for the ACI-Maix collagen membrane used in the manufacture of MACI™. See note 16 to the consolidated financial statements for further discussion.

Future minimum payments related to our operating, capital leases and contractual obligations are as follows:

		Payments Due by Period					
Contractual Obligations	**Total**	**2016**	**2017**	**2018**	**2019**	**2020**	**More than 5 Years**
Operating leases	$ 27,693	$ 4,310	$ 4,890	$ 4,572	$ 4,260	$ 4,386	$ 5,275
Purchase commitments	300	300	—	—	—	—	—
Capital leases	118	43	43	32	—	—	—
Total	$ 28,111	$ 4,653	$ 4,933	$ 4,604	$ 4,260	$ 4,386	$ 5,275

Critical Accounting Estimates

The preparation of our consolidated financial statements in accordance with U.S. generally accepted accounting principles (GAAP) requires management to make estimates and assumptions that could materially impact the consolidated financial statements and disclosures based on varying assumptions. We believe our estimates and assumptions are reasonable; however, actual results and the timing of the recognition of such amounts could differ from these estimates.

The following is a list of accounting policies that are most significant to the portrayal of our financial condition and results of operations and/or that require management's most difficult, subjective or complex judgments.

Stock-Based Compensation — Our accounting for stock-based compensation requires us to determine the fair value of common stock issued in the form of stock option awards. We use the value of our common stock at the date of the grant in the calculation of the fair value of our share-based awards. The fair value of stock options held by our employees is determined using a Black-Scholes option valuation method, which is a valuation technique that is acceptable for share-based payment accounting. Key assumptions in determining fair value include volatility, risk-free interest rate, dividend yield and expected term. The assumptions used in calculating the fair value of stock options represent our best estimates, however; these estimates involve inherent uncertainties and the application of management judgment. As a result, if factors change and different assumptions are used, the stock-based compensation expense could be materially different in the future. In addition, we are required to estimate the expected forfeiture rate and only recognize expense for those stock options expected to vest over the service period. We estimate the forfeiture rate considering the historical experience of our stock-based awards. If the actual forfeiture rate is different from the estimate, we adjust the expense accordingly.

Warrants — Warrants that could require cash settlement or have anti-dilution price protection provisions are recorded as liabilities at their estimated fair value at the date of issuance, with subsequent changes in estimated fair value recorded in other income (expense) in our statement of operations in each subsequent period. In general, warrants are measured using the Black-Scholes valuation model. The Black-Scholes model is based, in part, upon inputs for which there is little observable market data, requiring us to develop our own assumptions. Inherent in the model are assumptions related to expected stock-price volatility, expected life, risk-free interest rate and dividend yield. The assumptions used in calculating the estimated fair value of the warrants represent our best estimates; however, these estimates involve inherent uncertainties and the application of management judgment. As a result, if factors change and different assumptions are used, the warrant liability and the change in estimated fair value could be materially different.

Research and Development Expenses — Research and development costs, including internal and contract research costs, are expensed as incurred. Research and development expenses consist mainly of clinical trial costs, manufacturing of clinical material, process development costs, other preclinical studies, pharmacoeconomic research, grants to outside investigators including medical education and personnel costs.

Tax Valuation Allowance — A valuation allowance is recorded if it is more likely than not that a deferred tax asset will not be realized. We provided a full valuation allowance on our deferred tax assets that primarily consist of cumulative federal net operating losses. Due to our three year cumulative loss position, history of operating losses and losses expected to be incurred in the foreseeable future, a full valuation allowance against our net deferred tax assets was considered necessary.

The summary of significant accounting policies should be read in conjunction with our consolidated financial statements and related notes and this discussion of our results of operations.

Off-Balance Sheet Arrangements

We have no off-balance sheet arrangements that have or are reasonably likely to have a material effect on our financial condition.

Recent Accounting Pronouncements

See Note 3 to the consolidated financial statements.

Item 7A. *Quantitative and Qualitative Disclosures About Market Risk*

As of December 31, 2015, we would not expect our operating results or cash flows to be affected to any significant degree by the effect of a sudden change in market interest rates or credit conditions on our securities portfolio.

We believe that the interest rate risk related to our accounts receivable is not significant. We manage the risk associated with these accounts through periodic reviews of the carrying value for non-collectability and establishment of appropriate allowances. We do not enter into hedging transactions and do not purchase derivative instruments.

We operate in the United States only. We are primarily exposed to foreign exchange risk with respect to recognized assets and liabilities due to vendors in countries outside the United States which are typically paid in Euro and/or Danish Krone. We do not enter into hedging transactions and do not purchase derivative instruments.

Item 8. ***Financial Statements and Supplementary Data***

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Report of Independent Registered Public Accounting Firm

To the Board of Directors and Shareholders
of Vericel Corporation

In our opinion, the accompanying consolidated balance sheets and the related consolidated statements of operations, of shareholders' equity, of comprehensive loss and of cash flows present fairly, in all material respects, the financial position of Vericel Corporation and its subsidiaries at December 31, 2015 and December 31, 2014, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2015 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company did not maintain, in all material respects, effective internal control over financial reporting as of December 31, 2015, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) because a material weakness in internal control over financial reporting existed as of that date related to the design of controls to mitigate segregation of duties conflicts in the Company's financial management/ERP software. A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the annual or interim financial statements will not be prevented or detected on a timely basis. The material weakness referred to above is described in Management's Report on Internal Control over Financial Reporting appearing under Item 9A. We considered this material weakness in determining the nature, timing, and extent of audit tests applied in our audit of the 2015 consolidated financial statements, and our opinion regarding the effectiveness of the Company's internal control over financial reporting does not affect our opinion on those consolidated financial statements. The Company's management is responsible for these financial statements, for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in management's report referred to above. Our responsibility is to express opinions on these financial statements and on the Company's internal control over financial reporting based on our audits (which was an Integrated audit in 2015). 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 audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included 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. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ PricewaterhouseCoopers LLP

Detroit, Michigan
March 14, 2016

VERICEL CORPORATION
CONSOLIDATED BALANCE SHEETS
(amounts in thousands)

	December 31,	
	2015	2014
ASSETS		
Current assets:		
Cash	$ 14,581	$ 30,343
Accounts receivable (net of allowance for doubtful accounts of $68 and $40, respectively)	10,919	8,191
Inventory	1,379	1,920
Other current assets	464	1,036
Total current assets	27,343	41,490
Property and equipment, net	4,049	2,892
Intangible assets	2,917	3,197
Total assets	$ 34,309	$ 47,579
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 7,588	$ 5,824
Accrued expenses	3,603	4,714
Warrant liabilities	757	1,081
Other	160	210
Total current liabilities	12,108	11,829
Long term debt	71	109
Total liabilities	12,179	11,938
COMMITMENTS AND CONTINGENCIES (Note 16)		
Shareholders' equity:		
Series A non-voting convertible preferred stock, no par value: shares authorized and reserved — 1; shares issued and outstanding — 1	3,150	—
Series B-2 voting convertible preferred stock, no par value: shares authorized and reserved — 39, shares issued and outstanding — 12	38,389	38,389
Common stock, no par value; shares authorized — 75,000; shares issued and outstanding — 23,789 and 23,786, respectively	307,766	305,008
Treasury stock — 1,250 shares	(3,150)	—
Other comprehensive loss	—	(71)
Accumulated deficit	(324,025)	(307,685)
Total shareholders' equity	22,130	35,641
Total liabilities and shareholders' equity	$ 34,309	$ 47,579

The accompanying Notes to Consolidated Financial Statements are an integral part of these statements.

VERICEL CORPORATION
CONSOLIDATED STATEMENTS OF OPERATIONS
(In thousands, except per share amounts)

	Year Ended December 31,		
	2015	2014	2013
Revenues:			
Product sales	$ 51,168	$ 28,796	$ 19
Total revenues	51,168	28,796	19
Costs and expenses:			
Cost of product sales	26,470	17,293	4
Gross profit	24,698	11,503	15
Research and development	18,890	21,263	15,104
Selling, general and administrative	22,479	13,774	5,875
Total operating expenses	41,369	35,037	20,979
Loss from operations	(16,671)	(23,534)	(20,964)
Other income (expense):			
(Increase) decrease in fair value of warrants	324	(27)	5,337
Bargain purchase gain	—	3,473	—
Foreign currency translation gain (loss)	(67)	152	—
Interest income	36	24	16
Other income (expense)	47	(2)	—
Interest expense	(9)	(6)	(11)
Total other income (expense)	331	3,614	5,342
Net loss	$ (16,340)	$ (19,920)	$ (15,622)
Net loss per share attributable to common shareholders (Basic and Diluted) (see note 10)	$ (0.97)	$ (2.23)	$ (6.95)
Weighted average number of common shares outstanding (Basic and Diluted)	23,760	11,642	3,016

The accompanying Notes to Consolidated Financial Statements are an integral part of these statements.

VERICEL CORPORATION
CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY
(In thousands)

	Preferred Stock		Common Stock		Treasury Stock		Accumulated Other Comprehensive	Accumulated	Total Shareholders'
	Shares	Amount	Shares	Amount	Shares	Amount	Loss	Deficit	Equity
BALANCE, DECEMBER 31, 2013	12	$ 38,389	4,723	$ 253,270	—	$ —	$ —	$ (287,765)	$ 3,894
Net loss								(19,920)	(19,920)
Compensation expense related to stock options granted				839					839
Exercise of stock purchase warrants			408	2,490					2,490
Issuance of common stock, net of issuance costs of $3,167			18,655	48,409					48,409
Foreign currency translation adjustment							(71)		(71)
BALANCE, DECEMBER 31, 2014	12	$ 38,389	23,786	$ 305,008	—	$ —	(71)	$ (307,685)	$ 35,641
Net loss								(16,340)	(16,340)
Common stock exchanged for preferred stock and held in treasury shares	1	3,150			(1,250)	(3,150)			—
Compensation expense related to stock options granted				2,747					2,747
Stock option exercises			3	11					11
Foreign currency translation adjustment							71		71
BALANCE, DECEMBER 31, 2015	13	$ 41,539	23,789	$ 307,766	(1,250)	$ (3,150)	$ —	$ (324,025)	$ 22,130

The accompanying Notes to Consolidated Financial Statements are an integral part of these statements.

VERICEL CORPORATION
CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS
(In thousands)

	Year Ended December 31,		
	2015	2014	2013
Net loss	$ (16,340)	$ (19,920)	$ (15,622)
Other comprehensive loss			
Foreign currency translation	71	(71)	—
Comprehensive loss	$ (16,269)	$ (19,991)	$ (15,622)

The accompanying Notes to Consolidated Financial Statements are an integral part of these statements.

VERICEL CORPORATION
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)

	Year Ended December 31,		
	2015	2014	2013
Operating activities:			
Net loss	$ (16,340)	$ (19,920)	$ (15,622)
Adjustments to reconcile net loss to net cash used for operating activities:			
Depreciation and amortization	1,592	752	489
Stock compensation expense	2,747	839	926
Inventory provision	627	—	—
Change in fair value of warrants	(324)	27	(5,337)
Bargain purchase gain	—	(3,473)	—
Foreign currency translation loss (gain)	67	(152)	—
(Gain) loss on sale of fixed assets	(35)	139	—
Write down of asset retirement obligation	(268)	(1,102)	—
Changes in operating assets and liabilities:			
Inventory	(86)	119	—
Accounts receivable	(2,728)	(8,139)	—
Other current assets	572	(455)	(65)
Accounts payable	1,726	2,773	(571)
Accrued expenses	(764)	3,007	237
Asset retirement obligation	(80)	—	—
Other non-current assets and liabilities, net	(52)	175	—
Net cash used for operating activities	(13,346)	(25,410)	(19,943)
Investing activities:			
Acquisition of CTRM business, net of cash acquired	—	(1,450)	—
Expenditures for property, plant and equipment	(2,427)	(829)	(40)
Other	35	101	—
Net cash used for investing activities	(2,392)	(2,178)	(40)
Financing activities:			
Net proceeds from issuance of common stock and warrants	11	49,934	14,438
Payments on long-term debt	(35)	(8)	(34)
Net cash provided by financing activities	(24)	49,926	14,404
Effect of exchange rate changes on cash	—	(54)	—
Net increase (decrease) in cash	(15,762)	22,284	(5,579)
Cash at beginning of period	30,343	8,059	13,638
Cash at end of period	$ 14,581	$ 30,343	$ 8,059
Supplemental cash flow information (non-cash):			
Acquisition of business through promissory note	$ —	$ 2,500	$ —
Accretion of convertible preferred stock	$ —	$ —	$ 1,263
Common shares exchanged for preferred stock	$ 3,150	$ —	$ —
Warrants exchanged for common stock	$ —	$ 965	$ —
Additions to equipment in process included in accounts payable	$ 42	$ 199	$ —
Equipment acquired under capital lease	$ —	$ 153	$ —

The accompanying Notes to Consolidated Financial Statements are an integral part of these statements.

VERICEL CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Organization

Vericel Corporation, a Michigan corporation, which was formerly known as Aastrom Biosciences, Inc. (the Company, Vericel, we, us or our), was incorporated in March 1989 and began employee-based operations in 1991. On May 30, 2014, Vericel completed the acquisition of certain assets and assumed certain liabilities of Sanofi, a French société anonyme (Sanofi), including all of the outstanding equity interests of Genzyme Biosurgery ApS (Genzyme Denmark or the Danish subsidiary) (now known as Vericel Denmark ApS), a wholly-owned subsidiary of Sanofi, and over 250 patent applications of Sanofi and certain of its subsidiaries for purposes of acquiring the portion of the cell therapy and regenerative medicine business (the CTRM Business), which researches, develops, manufactures, markets and sells the Carticel®, MACI™, and Epicel® products. The Company is a fully integrated, commercial-stage biopharmaceutical company dedicated to the identification, development and commercialization of innovative therapies that enable the body to repair and regenerate damaged tissues and organs to restore normal structure and function. Vericel has marketed products as well as developmental stage product candidates and the Company's goal is to become the leader in cell therapy and regenerative medicine by developing, manufacturing and marketing best-in-class therapies for patients with significant unmet medical needs.

The Company operates its business primarily in the U.S. in one reportable segment — the research, product development, manufacture and distribution of patient-specific, expanded cellular therapies for use in the treatment of specific diseases.

Successful future operations are subject to several technical hurdles and risk factors, including satisfactory product development, timely initiation and completion of clinical trials, regulatory approval and market acceptance of the Company's products.

2. Summary of Significant Accounting Policies

Principles of Consolidation

The consolidated financial statements include the accounts of Vericel and its wholly-owned subsidiaries, Marrow Donation, LLC, located in San Diego, California, and Vericel Denmark ApS, in Kastrup, Demark (collectively, the Company). All inter-company transactions and accounts have been eliminated in consolidation. Aastrom Biosciences GmbH ceased operations in 2014 and Marrow Donation, LLC and Vericel Denmark ApS ceased operations in 2015.

Use of Estimates

The preparation of financial statements in accordance with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements and the reported amounts of expenses during the reported period. Actual results could differ from those estimates.

Inventory

Inventories are measured at the lower of cost or market value. Cost is calculated based upon standard-cost which approximates costs determined on the first-in, first-out method. Utilization reserves are established for estimated obsolescence or un-marketable inventory in an amount equal to the cost of inventory.

Accounts Receivable

Accounts receivable are initially recorded at the contractual amount owed by the customer. Allowances for doubtful accounts are established when the facts and circumstances indicate that a receivable may not be collectible.

Property, Plant and Equipment

Property, plant and equipment are initially measured and recognized at acquisition cost, including any directly attributable cost of preparing the asset for its intended use or, in the case of assets acquired in a business combination, at fair value as at the date of the combination. After initial measurement, property, plant and equipment are carried at cost less accumulated depreciation and impairment. Repair and maintenance costs of property, plant and equipment are expensed as incurred.

The depreciable value of property, plant and equipment, net of any residual value, is depreciated on a straight line basis over the useful life of the asset. The useful life of an asset is usually equivalent to its economic life. The useful lives of property, plant and equipment are as follows:

- Equipment and computers: 3 to 5 years
- Furniture and fixtures: 5 years
- Building improvements and leasehold improvements: Shorter of the remaining life of the lease or 7 years

The costs of assets retired or otherwise disposed of and the accumulated depreciation thereon are removed from the accounts, with any gain or loss realized upon sale or disposal credited or charged to operations.

Intangible Assets and Other Long Lived Assets

Intangible assets are initially measured at acquisition cost, including any directly attributable costs of preparing the asset for its intended use or, in the case of assets acquired in a business combination at fair value as at the date of the combination. Identifiable intangible assets related to commercial rights are amortized on a straight line basis over their expected useful lives. Amortization of intangible assets is recognized in these financial statements under Costs of product sales.

Intangible assets and long-lived assets are assessed for potential impairment when there is evidence that events or changes in circumstances indicate that the carrying amount of an asset may not be recovered. An impairment loss would be recognized when an asset's fair value, determined based on undiscounted cash flows expected to be generated by the asset, is less than its carrying amount. The impairment loss would be measured as the amount by which the asset's carrying value exceeds its fair value and recognized in these financial statements. Intangible assets are carried at cost less accumulated amortization and impairment.

Revenue Recognition

Total revenues are comprised of product sales of Carticel, Epicel, MACI, bone marrow and surgical kits. Revenue is recognized when persuasive evidence of an arrangement exists, the goods are shipped or delivered, depending on shipping terms, title and risk of loss pass to the customer and collectability is reasonably assured. Shipping and handling costs are included as a component of revenue.

Revenue is recorded net of a provision for rebates and cash discounts. These rebates and cash discounts are established by the Company at the time of sale, based on historical experience adjusted to reflect known changes in the factors that impact such reserves. For instance, distributors are entitled to chargeback incentives for services that are provided for based on the selling price to the end customer, under specific contractual arrangements. Cash discounts may also be granted for prompt payment.

Research and Development Expense

Research and development activities represent a significant part of the Company's business. These expenditures relate to the development of new products, improvement of existing products, technical support of products and compliance with governmental regulations for the protection of consumers and patients. Research and development expenses are expensed as incurred.

Diversity of Credit Risk

The Company has established guidelines relative to diversification in an effort to limit risk. These guidelines are periodically reviewed and modified to take advantage of trends in yields and interest rates.

Stock-Based Compensation

The Company's accounting for stock-based compensation requires it to determine the fair value of common stock issued in the form of stock option awards. The Company uses the value of its common stock at the date of the grant in the calculation of the fair value of its share-based awards. The fair value of stock options held by the employees is determined using a Black-Scholes option valuation method, which is a valuation technique that is acceptable for share-based payment accounting. Key assumptions in determining fair value include volatility, risk-free interest rate, dividend yield and expected term. The assumptions used in calculating the fair value of stock options represent the Company's best estimates, however; these estimates involve inherent uncertainties and the application of management judgment. As a result, if factors change and different assumptions are used, the stock-based compensation expense could be materially different in the future. In addition, the Company is required to estimate the expected forfeiture rate and only recognize expense for those stock options expected to vest over the service period. The

estimated forfeiture rate considers the historical experience of the Company's stock-based awards. If the actual forfeiture rate is different from the estimate, expense is adjusted accordingly.

The Company also has an Employee Stock Purchase Plan (ESPP) which is a compensatory plan. Compensation expense is recorded based on the fair value of the purchase options at the grant date, which corresponds to the first day of each purchase period, and is amortized over the purchase period.

Comprehensive Loss

Comprehensive loss is the change in common stockholders' equity during a period arising from any gain or loss realized related to foreign currency translation.

Income Taxes

Deferred tax assets are recognized for deductible temporary differences and tax credit carryforwards and deferred tax liabilities are recognized for taxable temporary differences. Deferred tax assets are reduced by a valuation allowance when, in the opinion of management, it is more likely than not that some portion or all of the deferred tax assets will not be realized.

Net Loss Per Share Attributable to Common Shareholders

Basic earnings (loss) per share is calculated using the two-class method, which is an earnings allocation formula that determines earnings (loss) per share for the holders of the Company's common shares and holders of the Series B preferred stock. The Series B preferred stock shares contain participation rights in undistributed earnings, but do not share in the losses of the Company. The accumulated but undeclared dividends on the Series B preferred stock of $6.7 million are treated as a reduction of earnings attributable to common shareholders.

Financial Instruments

The Company's financial instruments include receivables for which the current carrying amounts approximate market value based upon their short-term nature.

Warrants

Warrants that could be cash settled or have anti-dilution price protection provisions are recorded as liabilities at their estimated fair value at the date of issuance, with subsequent changes in estimated fair value recorded in other income (expense) in our statement of operations in each subsequent period. In general, warrants are measured using the Black-Scholes valuation model. The methodology is based, in part, upon inputs for which there is little or no observable market data, requiring the Company to develop its own assumptions. The assumptions used in calculating the estimated fair value of the warrants represent our best estimates; however, these estimates involve inherent uncertainties and the application of management judgment. As a result, if factors change and different assumptions are used, the warrant liability and the change in estimated fair value could be materially different.

3. Recent Accounting Pronouncements

Revenue Recognition

In May 2014, the Financial Accounting Standards Board (FASB) issued authoritative guidance requiring entities to apply a new model for recognizing revenue from contracts with customers. The guidance will supersede the current revenue recognition guidance and require entities to evaluate their revenue recognition arrangements using a five step model to determine when a customer obtains control of a transferred good or service. The guidance is currently effective for annual reporting periods beginning after December 15, 2017, with early adoption permitted for annual reporting periods beginning after December 15, 2016, and may be adopted using a full or modified retrospective application. The Company is currently in the process of evaluating its revenue arrangements under the issued guidance and has not yet determined the impact to its consolidated financial statements.

Going Concern Assessment

The FASB has issued authoritative guidance for management on how to assess whether substantial doubt exists regarding an entity's ability to continue as a going concern and guidance on how to prepare related footnote disclosures. The guidance will require management to evaluate whether there are conditions or events that raise substantial doubt about an entity's ability to

continue as a going concern for one year from the date the financial statements are issued. The guidance is effective for annual reporting periods beginning after December 15, 2016. As of December 31, 2015, the Company does not expect the guidance to impact future disclosures.

Balance Sheet Classification of Deferred Taxes

The FASB simplified the balance sheet classification of deferred taxes guidance to require all deferred tax assets and liabilities, along with any related valuation allowance, be classified as noncurrent on the balance sheet. The new guidance eliminates the requirement to classify deferred taxes between current and noncurrent and is expected to simplify financial reporting. The guidance is effective for annual reporting periods beginning after December 15, 2016, with early adoption permitted for interim or annual reporting periods beginning after December 15, 2015. The guidance may be applied either prospectively, for all deferred tax assets and liabilities, or retrospectively by reclassifying the comparative balance sheet for prior periods. The Company has early adopted the guidance beginning for the year ended December 31, 2015 on a prospective basis. The guidance did not have a material impact for the year ended December 31, 2015.

Presentation and Subsequent Measurement of Debt Issuance Costs

The FASB issued guidance which requires entities to present debt issuance costs related to a recognized debt liability as a direct deduction from the carrying amount of that debt liability. For debt issuance costs related to line-of-credit arrangements, companies are able to defer and present debt issuance costs as an asset and subsequently amortize the deferred debt issuance costs ratably over the term of the line-of-credit arrangement, regardless of whether there are any outstanding borrowings on the line-of-credit arrangement. The guidance is effective for annual reporting periods beginning after December 15, 2015. The Company is currently determining the impact on future periods.

Accounting for Leases

The FASB issued guidance to increase transparency and comparability among organizations by recognizing lease assets and lease liabilities on the balance sheet and disclosing key information about leasing arrangements. In accordance with the updated guidance, lessees are required to recognize the assets and liabilities arising from operating leases on the balance sheet. The guidance is effective for annual reporting periods beginning after December 15, 2018, including interim periods including interim periods within 2018. The Company is currently determining the impact on future periods.

4. Acquisitions

CTRM Business acquisition

On May 30, 2014, Vericel completed its acquisition of certain assets of Sanofi, including all of the outstanding equity interests of Genzyme Denmark, a wholly-owned subsidiary of Sanofi, and over 250 patents and patent applications and assumed certain liabilities for purposes of acquiring portions of the CTRM Business. Vericel is a leader in developing patient-specific expanded cellular therapies for use in the treatment of patients with severe diseases and conditions and the CTRM Business expands the Company's portfolio of cellular therapies to include products which treat severe burns and as well as cartilage defects. Pursuant to the terms of the asset purchase agreement, the Company paid a total purchase price of $6.5 million, including $4.0 million in cash and a $2.5 million promissory note which was repaid on July 30, 2014.

The total purchase price consideration was as follows:

Acquisition consideration (In thousands):		Fair Value
Cash payment	$	4,000
Promissory note		2,500
Total acquisition consideration	$	6,500

The Company recognized tangible and intangible assets and liabilities acquired based upon their respective estimated fair values as of the acquisition date. The table below shows the fair values assigned to the assets acquired and liabilities assumed. Based on this analysis, the transaction resulted in a bargain purchase gain.

The final purchase price allocation was as follows:

Purchase price allocation (In thousands):	Fair Value
Cash	$ 5,050
Accounts receivable	53
Inventory	2,039
Other current assets	192
Accounts payable and accrued expenses	(939)
Asset retirement obligation	(1,600)
Property and equipment	1,818
Intangible assets	3,360
Bargain purchase gain	(3,473)
Total consideration	$ 6,500

As part of the acquisition, $5.0 million in cash was received from Sanofi in order to fund the restructuring of the Denmark operations and close the facility. In 2014, the Company implemented its restructuring plans for the Danish subsidiary after the consummation of the acquisition of the CTRM Business and recorded restructuring charges in the U.S. and Denmark of $3.0 million. See Note 5 “Restructuring” below for additional information.

The intangible assets acquired represent commercial use rights for certain products acquired in the transaction. The fair value of $3.4 million was determined using the income approach based on projected cash flows attributed to the commercial rights. The calculated value of the commercial rights intangible assets are amortized using the straight line method over an estimated useful life of 12 years

Pro forma Financial Information

The following pro forma condensed combined information for the year ended December 31, 2014, and 2013, respectively are presented as if the acquisition of the CTRM Business had occurred on January 1, 2013.

In management’s opinion, all adjustments necessary to reflect the significant effects of this transaction have been made. These statements are based on assumptions and estimates considered appropriate by management; however, they are not necessarily, and should not be assumed to be, an indication of Vericel’s financial position or results of operations that would have been achieved had the acquisitions been completed as of the dates indicated or that may be achieved in the future.

	Year Ended December 31,	
(in thousands)	2014	2013
Pro forma revenue	$ 44,906	$ 43,863
Pro forma net loss	(30,115)	(49,124)
Pro forma net loss per share - basic and diluted	(3.10)	(18.06)

An error was identified in the December 31, 2014 acquisition disclosure with respect to the amount recorded for pro forma condensed combined information for the year ended December 31, 2014. The pro forma revenue, net loss and net loss per share (basic and diluted) was understated by $0.1 million, $4.0 million and $0.33 per share, respectively. In accordance with the guidance set forth by the SEC, we evaluated the error and, based on an analysis of quantitative and qualitative factors determined that the error was immaterial to the prior reporting periods affected. As the error has no impact on any amounts presented in a previously issued balance sheet, statement of operations or statement of cash flows for any prior periods, we determined that it is appropriate to revise the 2014 prior year amounts presented above to reflect the corrected disclosure.

5. Restructuring

Acquisition Restructuring

In June 2014, the Company announced a strategic plan to maximize the profitability and growth potential of the CTRM Business (the Plan). Under the Plan, the Company discontinued manufacturing MACI in Denmark and temporarily suspended sales of MACI in Europe. Furthermore, the Company eliminated approximately 80 full time employee positions, which represented approximately 30% of the Company’s current total workforce. Employees terminated as part the Plan were provided with severance payments and outplacement assistance.

As a result of the Plan, the Company recorded a restructuring charge of $3.0 million for the year ended December 31, 2014, related to the operations in the United States and Denmark, primarily representing cash payments for severance and other personnel-related expenses. Of the total restructuring charge, $2.5 million was recorded in cost of product sales, and $0.5 million was recorded in selling, general and administrative expenses. There was no restructuring reserve as of December 31, 2014 or 2015 as a result of cash payments made for severance and other personnel-related expenses.

R&D Restructuring

In 2013, the Company changed its strategy for research and development programs to focus on the clinical development of ixmyelocel-T for the treatment of advanced heart failure due to ischemic dilated cardiomyopathy (DCM). As a result of the strategic change, the Company stopped enrollment of the Phase 3 REVIVE clinical trial in patients with critical limb ischemia (CLI) and the Company recorded a one-time restructuring charge of $0.4 million in 2013 in research and development expenses. The restructuring accrual for the strategic changes decreased to less than $0.1 million as of December 31, 2013 as a result of cash payments made for severance and other personnel-related expenses. There was no restructuring reserve related to the strategic change in 2014 or 2015.

6. Selected Balance Sheet Components

Inventory as of December 31, 2015 and 2014:

(In thousands)	2015	2014
Raw materials	$ 1,228	$ 1,078
Work-in-process	131	458
Finished goods	20	384
Inventory	$ 1,379	$ 1,920

Property and Equipment, net as of December 31, 2015 and 2014:

(In thousands)	2015	2014
Machinery and equipment	$ 3,280	$ 3,135
Furniture, fixtures and office equipment	931	777
Computer equipment and software	2,662	667
Leasehold improvements	2,393	1,691
Construction in process	421	1,019
	9,687	7,289
Less accumulated depreciation	(5,638)	(4,397)
Property and Equipment	$ 4,049	$ 2,892

Depreciation expense for the years ended December 31, 2015, 2014 and 2013 were $1.3 million , $0.8 million, and $0.5 million, respectively.

Intangible assets, net as of December 31, 2015 and 2014:

(In thousands)	2015	2014
Commercial rights	$ 3,360	$ 3,360
Less accumulated amortization	(443)	(163)
Intangible assets	$ 2,917	$ 3,197

Amortization expense was $0.3 million and $0.2 million for the years ended December 31, 2015 and 2014, respectively. There was no amortization expense in 2013.

Estimated future amortization expense is as follows:

Calendar Years Ending December 31, (In thousands)	
2016	$ 280
2017	280
2018	280
2019	280
2020	280
Thereafter	1,517
Total	$ 2,917

Accrued Expenses as of December 31, 2015 and 2014:

(In thousands)	2015	2014
Bonus	$ 1,956	$ 2,044
Employee related accruals	1,341	1,281
Accrued expenses	75	605
Asset retirement obligation[(a)]	—	348
Other	231	436
Accrued expenses	$ 3,603	$ 4,714

(a) The reduction in the asset retirement obligation is based on a change to the estimate of the obligation to restore the Denmark facility to its original state and final payment of the obligation.

7. Stock-Based Compensation

Stock Option and Equity Incentive Plans

The Company has historically had various stock incentive plans and agreements that provide for the issuance of nonqualified and incentive stock options as well as other equity awards. Such awards may be granted by the Company's Board of Directors to certain of the Company's employees, directors and consultants. Options granted under these plans expire no later than ten years from the date of grant, and other than those granted to non-employee directors, generally become exercisable over a four period, under a graded-vesting methodology, following the date of grant. The Company generally issues new shares upon the exercise of stock options.

The 2009 Second Amended and Restated Omnibus Incentive Plan (2009 Plan) provides incentives through the grant of stock options, stock appreciation rights, restricted stock awards and restricted stock units. The exercise price of stock options granted under the 2009 Plan shall not be less than the fair market value of the Company's common stock on the date of grant. The 2009 Plan replaced the 1992 Stock Option Plan, the 2001 Stock Option Plan and the Amended and Restated 2004 Equity Incentive Plan (Prior Plans), and no new awards have been granted under the Prior Plans. However, the expiration or forfeiture of options previously granted under the Prior Plans will increase the awards available for issuance under the 2009 Plan.

As of December 31, 2015, there were 1,962,168 shares available for future grant under the 2009 Plan.

Employee Stock Purchase Plan

In May 2015, the board of directors and shareholders approved the Vericel Corporation Employee Stock Purchase Plan (ESPP), which was implemented effective October 1, 2015 for the first offering period. The ESPP allows for the issuance of an aggregate of 1,000,000 shares of common stock. Participation in this plan is available to substantially all employees. The ESPP is a compensatory plan accounted for under the expense recognition provisions of the share-based payment accounting standards. Compensation expense is recorded based on the fair market value of the purchase options at the grant date, which corresponds to the first day of each purchase period and is amortized over the purchase period. In January 2016, employees purchased 63,193 shares resulting in proceeds from the sale of common stock of $0.1 million under the ESPP for the first offering period. The total share-based compensation expense for the ESPP for the year ended December 31, 2015 was less than $0.1 million.

Service-Based Stock Options

During the year ended December 31, 2015, the Company granted 2,216,600 service-based options to purchase common stock. The exercise price of the options is the fair market value per share of common stock on the grant date, generally vest over four years (other than 136,000 non-employee options which vest over one year) and have a term of ten years. The weighted average grant-date fair value of service-based options granted during the years ended December 31, 2015, 2014, and 2013 was $2.22, $2.85 and $14.07, respectively.

The net compensation costs recorded for the service-based stock options related to employees and directors (including the impact of the forfeitures) for the years ended December 31, 2015, 2014, and 2013 were $2.7 million, $0.8 million and $0.9 million, respectively.

The fair value of each service-based stock option grant for the reported periods is estimated on the date of the grant using the Black-Scholes option-pricing model using the weighted average assumptions noted in the following table.

	Year Ended December 31,		
Service-Based Stock Options	**2015**	**2014**	**2013**
Expected dividend rate	—%	—%	—%
Expected stock price volatility	77.4 – 88.1%	82.4 – 88.2%	74.0 – 87.9%
Risk-free interest rate	1.5 – 2.0%	1.7 – 2.2%	0.1 – 2.1%
Expected life (years)	5.5 – 6.3	5.5 – 6.3	5.0 – 6.3

The following table summarizes the activity for service-based stock options for the indicated periods:

Service-Based Stock Options	**Options**	**Weighted Average Exercise Price**	**Weighted Average Remaining Contractual Term**	**Aggregate Intrinsic Value**
Outstanding at December 31, 2012	499,374	$ 47.60	7.5	$ —
Granted	75,751	$ 21.32		
Exercised	—	$ —		$ —
Expired	(164,189)	$ 51.76		
Forfeited	(113,076)	$ 45.38		
Outstanding at December 31, 2013	297,860	$ 39.53	7.9	$ —
Granted	242,029	$ 3.91		
Exercised	—	$ —		$ —
Expired	(32,012)	$ 42.63		
Forfeited	(30,347)	$ 32.13		
Outstanding at December 31, 2014	477,530	$ 36.43	8.0	$ —
Granted	2,216,600	$ 3.11		
Exercised	(3,566)	$ 3.02		$ 1,000
Expired	(17,791)	$ 40.02		
Forfeited	(149,373)	$ 3.35		
Outstanding at December 31, 2015	2,523,400	$ 6.36	8.7	$ 5,000
Exercisable at December 31, 2015	661,229	$ 14.27	7.9	$ —

As of December 31, 2015 there was approximately $2.7 million, of total unrecognized compensation cost related to non-vested service-based stock options granted under the 2009 Plan and the Prior Plans. That cost is expected to be recognized over a weighted-average period of 3.0 years.

The total fair value of stock options vested for the years ended December 31, 2015, 2014, and 2013 was $1.7 million, $1.5 million and $2.3 million, respectively.

8. Shareholders' Equity

2013 Stock and Warrant Sale

On August 16, 2013, the Company completed the sale of 1.5 million shares of common stock and warrants to purchase up to an aggregate of 1.5 million shares of common stock (including 50,000 shares of common stock and warrants sold to the underwriter pursuant to the exercise of its over-allotment option). Each share of common stock and its associated warrant was sold at a public offering price of $6.00 per share. The Company received $8.2 million in net proceeds from the sale of the shares of common stock and warrants (including the partial exercise of the over-allotment option), after underwriting discounts, commissions and other offering expenses. The total fair market value of the warrants at the date of issuance was $5.9 million. The sales proceeds were first allocated to the warrants based on the total fair market value and the residual amount of the sales proceeds were allocated to common stock.

2014 Warrant Exercise Agreement

On July 9, 2014, the Company entered into a Warrant Exercise Agreement with one holder of warrants issued by the Company on August 16, 2013 (the 2013 Warrants) to purchase an aggregate of 362,500 shares of the Company's common stock, no par value. Pursuant to the Warrant Exercise Agreement, the holder agreed to exercise the 2013 Warrants at the existing exercise price of $4.80. The net proceeds to the Company in connection with the exercise of the 2013 Warrants, after deducting a warrant inducement payment and expenses, were approximately $1.5 million.

2014 Stock Purchase Agreement

On January 21, 2014, the Company entered into a purchase agreement (Purchase Agreement), together with a registration rights agreement, for the sale of up to $15.0 million of shares of its common stock to Lincoln Park, subject to certain limitations, from time to time over a 30-month period, which began on April 3, 2014 and ends on October 3, 2016. The Company may direct Lincoln Park, at its sole discretion, to purchase up to 50,000 shares of common stock in regular purchases, increasing to amounts of up to 100,000 shares depending upon the closing sale price of the common stock. In addition, the Company may direct Lincoln Park to purchase additional amounts as accelerated purchases if on the date of a regular purchase the closing sale price of the common stock equals or exceeds $3.00 per share. The purchase price of shares of common stock related to the future funding will be based on the prevailing market prices of such shares at the time of sales (or over a period of up to 10 business days leading up to such time), but in no event will shares be sold to Lincoln Park on a day the common stock closing price is less than the floor price of $2.50, subject to adjustment. The Company controls the timing and amount of any sales of common stock to Lincoln Park. The Company's sales of shares of common stock to Lincoln Park under the Purchase Agreement are limited to no more than the number of shares that would result in the beneficial ownership by Lincoln Park and its affiliates, at any single point in time, of more than 9.99% of the then outstanding shares of the common stock. For the year ended December 31, 2014, the Company issued 935,499 shares of common stock to Lincoln Park and raised gross proceeds of $3.7 million (with the ability to sell up to an additional $11.3 million more in common stock). No shares were issued in 2015.

At-the-Market Sales Agreement

During the years ended December 31, 2014 and 2013, the Company raised net proceeds of $7.1 million and $4.8 million utilizing the At-the-Market Sales Agreement (ATM) with MLV & Co. LLC (formerly McNicoll, Lewis & Vlak) (MLV). The Company originally entered into the ATM with MLV in June 2011 in which the Company may sell shares of its common stock through MLV, as sales agent, in registered transactions from its shelf registration statement filed in July 2011, for aggregate proceeds of up to $20.3 million. The Form S-3 registration statement filed in June 2011 expired in July 2014. Shares of common stock sold under the ATM are to be sold at market prices. The Company will pay up to 3% of the gross proceeds to MLV as a commission. At December 31, 2015 there was approximately $7.8 million of net capacity remaining on the ATM.

2014 Public Equity Offering

On September 17, 2014, the Company closed on a public equity offering whereby it sold 15,784,313 shares of common stock at an offering price of $2.55 per share. The proceeds of $37.5 million, net of $2.4 million of underwriters' discount and $0.3 million of issuance costs consisting primarily of legal and accounting fees, were recorded as a common stock issuance.

Treasury Stock

On December 23, 2015 Stonepine Capital, LLC (Stonepine) exchanged 1,250,000 shares of the Company's common stock held by Stonepine for 1,250 shares of Series A Convertible Preferred Stock. The common stock transferred from Stonepine to the Company during the share exchange is reserved as treasury shares. The value transferred to Series A Convertible Preferred Stock of $3.2 million is equal to the fair market value of the common stock as of December 23, 2015. See further discussion in note 9 of the consolidated financial statements.

Dividends

No cash dividends have been declared or paid by the Company since its inception.

9. Preferred Stock

Shareholder Rights Plan

In August 2011, the Board of Directors of the Company adopted a Shareholder Rights Plan, as set forth in the Shareholder Rights Agreement between the Company and the rights agent, the purpose of which is, among other things, to enhance the Board's ability to protect shareholder interests and to ensure that shareholders receive fair treatment in the event any coercive takeover attempt of the Company is made in the future. The Shareholder Rights Plan could make it more difficult for a third party to acquire, or could discourage a third party from acquiring, the Company or a large block of the Company's common stock. In March 2012, the Board approved an amendment to the Shareholder Rights Plan to enable Eastern Capital Limited and its affiliates to purchase up to 49.9% of the shares of common stock of the Company without becoming an "acquiring person" and thereby triggering the stockholder rights, with the limitations under the Shareholder Rights Plan remaining in effect for all other stockholders of the Company.

In connection with the adoption of the Shareholder Rights Plan, the Board of Directors of the Company declared a dividend distribution of one preferred stock purchase right (Right) for each outstanding share of common stock to stockholders of record as of the close of business on August 15, 2011. In addition, one Right will automatically attach to each share of common stock issued between August 15, 2011 and the distribution date. As a result of the October 2013 reverse stock split, the number of Rights associated with each share of common stock was automatically proportionately adjusted so that (i) twenty rights were then associated with each outstanding share of common stock and (ii) so long as the Rights are attached to the common stock, twenty rights shall be deemed to be delivered for each share of common stock issued or transferred by the Company in the future. The Rights currently are not exercisable and are attached to and trade with the outstanding shares of common stock. Each Right entitles the registered holder of common stock to purchase from the Company a unit consisting of one ten-thousandth of a share (Unit) of Series A Junior Participating Preferred Stock, no par value per share, at a cash exercise prices of $30.00 per Unit. There are currently 45,000 shares authorized and zero issued and outstanding. Under the Shareholder Rights Plan, the Rights become exercisable if a person or group becomes an "acquiring person" by acquiring 15% or more of the outstanding shares of common stock or if a person or group commences a tender offer that would result in that person owning 15% or more of the common stock. If a person or group becomes an "acquiring person," each holder of a Right (other than the acquiring person and its affiliates, associates and transferees) would be entitled to purchase, at the then-current exercise price, such number of shares of the Company's preferred stock which are equivalent to shares of common stock having a value of twice the exercise price of the Right. If the Company is acquired in a merger or other business combination transaction after any such event, each holder of a Right would then be entitled to purchase, at the then-current exercise price, shares of the acquiring company's common stock having a value of twice the exercise price of the Right.

The Rights may be redeemed in whole, but not in part, at a price of $0.001 per Right (payable in cash, common stock or other consideration deemed appropriate by the Board of Directors) by the Board of Directors only until the earlier of (i) the time at which any person becomes an "acquiring person" or (ii) the expiration date of the Rights Agreement. Immediately upon the action of the Board of Directors ordering redemption of the Rights, the Right will terminate and thereafter the only right of the holders of Rights will be to receive the redemption price. The Rights will expire at the close of business on August 15, 2021, unless previously redeemed or exchanged by the Company as described above.

Series B Convertible Preferred Stock

On March 9, 2012, the Company completed the sale of 12,308 shares of Series B-1 Non-Voting Convertible Preferred Stock (Series B-1 preferred stock) at an offering price of $3,250 per share. In addition to the Series B-1 preferred stock, which was issued at the closing, the Company also authorized Series B-2 Voting Convertible preferred Stock (Series B-2 preferred stock). The Series B-1 preferred stock and Series B-2 preferred stock collectively are referred to as the Series B preferred stock. The Series B preferred stock is convertible, at the option of the holder thereof at any time after the five year anniversary of the closing of the offering, into shares of common stock at a conversion price of $3.25 per share of common stock, at a conversion ratio of one share of preferred stock for fifty shares of common stock. At any time after the five year anniversary of issuance, the Company may elect to convert any or all outstanding shares of Series B preferred stock into shares of common stock, subject to certain limitations. Dividends on the Series B preferred stock will be cumulative and compound daily, at a rate of 11.5% per annum, payable upon conversion, liquidation, redemption or other similar events, and payable in cash or Series B-1 preferred stock until the five year anniversary of issuance. As of December 31, 2015, there are 338,710 accumulated but undeclared Series B-1 dividends. Unless prohibited by Michigan law governing distributions to shareholders, the Series B-1 preferred stock shall be

redeemable at the option of holder of the Series B-1 preferred stock commencing at any time after the five year anniversary of issuance, liquidation, winding up, dissolution or other similar events, subject to certain terms and limitations.

The Series B preferred stock does not, in its entirety, require liability classification and was evaluated for embedded features to determine if those features require bifurcation and separate classification as derivative liabilities. The Series B preferred stock host contract was evaluated for equity or mezzanine classification based upon the nature of the redemption and conversion features. Generally, any feature that could require cash redemption for matters not within the Company's control, irrespective of probability of the event occurring, requires classification outside of shareholders' equity. The Series B preferred stock was initially recorded as mezzanine in the Consolidated Balance Sheets and was accreted to its redemption value through charges to accumulated deficit using the effective interest method.

On August 12, 2013, the Company amended the Series B preferred stock agreement to remove the cash redemption provision, modify the liquidation preferences for the Series B-2 preferred stock and to increase the redemption price for the Series B-1 preferred stock. The redemption price, prior to the five year anniversary, is now equal to $7,430 multiplied by the number of Series B-1 preferred shares redeemed minus the Company's closing stock price multiplied by the number of common shares into which the outstanding Series B-2 preferred stock are convertible. The redemption price, after the five year anniversary, is the amount equal to the greater of the Series B offering price plus accrued dividends or the conversion value in common stock. As a result of the amendment to the agreement, the total amount of $38.4 million Series B preferred stock was reclassified from mezzanine into shareholders' equity.

Series A Convertible Preferred Stock

On December 18, 2015, Vericel entered into a Securities Exchange Agreement (Exchange Agreement) with Stonepine pursuant to which Stonepine exchanged an aggregate of 1,250,000 shares of its common stock held by Stonepine for 1,250 shares of the Company's Series A Convertible Preferred Stock (the Exchange). The Exchange closed on December 23, 2015. In connection with the Exchange, the Company designated 1,250 shares of its authorized and unissued preferred stock as Series A Convertible Preferred Stock. Each share of Series A Convertible Preferred Stock is convertible into 1,000 shares of its common stock at any time at the holder's option. The holder, however, will be prohibited from converting Series A Convertible Preferred Stock into shares of common stock if, as a result of such conversion, the holder, together with its affiliates, would own more than 9.99% of the shares of the Company's common stock then issued and outstanding or, upon such holder's written election, 14.99% of the shares of our common stock then issued and outstanding. In the event of our liquidation, dissolution, or winding up, holders of Series A Convertible Preferred Stock will receive a payment equal to any declared but unpaid dividends before any proceeds are distributed to the holders of common stock, after any proceeds are distributed to the holder of our Series B-1 Non-Voting Convertible Preferred Stock and Series B-2 Voting Convertible Preferred Stock (together, the Series B Convertible Preferred Stock) and pari passu with any distributions to the holders of the Company's common stock. Shares of Series A Convertible Preferred Stock have no voting rights, except as required by law and except where the consent of holders of a majority of the outstanding Series A Convertible Preferred Stock would be required to amend the terms of the Series A Convertible Preferred Stock. Shares of Series A Convertible Preferred Stock are entitled to receive dividends at the same time as the shares of Common Stock.

10. Net Loss Per Common Share

The following reflects the net loss attributable to common shareholders and share data used in the basic and diluted earnings per share computations using the two class method:

	Year Ended December 31,		
(Amounts in thousands, except per share amounts)	**2015**	**2014**	**2013**
Numerator:			
Net loss	$ (16,340)	$ (19,920)	$ (15,622)
Less: earnings attributable to convertible preferred stock	6,736	6,005	5,352
Numerator of basic and diluted EPS	$ (23,076)	$ (25,925)	$ (20,974)
Denominator:			
Denominator for basic and diluted EPS: weighted-average common shares outstanding	23,760	11,642	3,016
Net loss per share attributable to common shareholders (basic and diluted)	$ (0.97)	$ (2.23)	$ (6.95)

Common equivalent shares and treasury stock are not included in the diluted per share calculation where the effect of their inclusion would be anti-dilutive. The aggregate number of common equivalent shares (related to options, warrants, preferred

stock and treasury stock) that have been excluded from the computations of diluted net loss per common share for the years ended December 31, 2015, 2014 and 2013 was 6.7 million, 2.3 million and 2.4 million, respectively.

11. Stock Purchase Warrants

The Company has historically issued warrants to purchase shares of the Company's common stock in connection with certain common stock offerings. The following warrants were outstanding during the year ended December 31, 2015, and include provisions that could require cash settlement of the warrants or have anti-dilution price protection provisions requiring the warrants to be recorded as liabilities of the Company at the estimated fair value at the date of issuance, with changes in estimated fair value recorded as income or expense (non-cash) in the Company's statement of operations in each subsequent period:

	August 2013 Warrants
Exercise price	$4.80
Expiration date	August 16, 2018
Total shares issuable on exercise	724,950

In July and December 2015, the January and December 2010 Class A warrants convertible into 226,299 and 15,405 shares of common stock, respectively, expired unexercised. The fair value of the remaining August 2013 warrants are measured using the Black-Scholes valuation model. Inherent in the Black-Scholes valuation model are assumptions related to expected stock-price volatility, expected life, risk-free interest rate and dividend yield. The Company estimates the volatility of its common stock based on historical volatility that matches the expected remaining life of the warrants. The risk-free interest rate is based on the U.S. Treasury zero-coupon yield curve on the grant date for a maturity similar to the expected remaining life of the warrants. The expected life of the warrants is assumed to be equivalent to their remaining contractual term. The dividend yield is based on the historical rate, which the Company anticipates to remain at zero.

The assumptions used by the Company are summarized in the following table:

August 2013 Warrants	December 31, 2015	December 31, 2014
Closing stock price	$ 2.58	$ 3.04
Expected dividend yield	—%	—%
Expected stock price volatility	91.4%	83.2%
Risk-free interest rate	1.31%	1.20%
Expected life (years)	2.63	3.63

12. Fair Value Measurements

The Company's fair value measurements are classified and disclosed in one of the following three categories:

- Level 1: Unadjusted quoted prices in active markets that are accessible at the measurement date for identical, unrestricted assets or liabilities;
- Level 2: Quoted prices in markets that are not active, or inputs which are observable, either directly or indirectly, for substantially the full term of the asset or liability;
- Level 3: Prices or valuation techniques that require inputs that are both significant to the fair value measurement and unobservable (i.e., supported by little or no market activity).

The following table summarizes the valuation of the Company's financial instruments that are measured at fair value on a recurring basis:

	December 31, 2015				December 31, 2014			
	Fair value measurement category				Fair value measurement category			
(In thousands)	Total	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3
Liabilities:								
Warrant liabilities	$ 757	$ —	$ 757	$ —	$ 1,081	$ —	$ 1,061	$ 20

The fair values of the warrants are measured using the Black-Scholes valuation model. See Note 11 for further discussion of the significant observable inputs use to measure the warrant liabilities.

The following table summarizes the change in the estimated fair value of the Company's warrant liabilities:

Warrant Liabilities (In thousands)	
Balance at December 31, 2013	$ 2,019
Warrant exercises	(965)
Increase in fair value	27
Balance at December 31, 2014	1,081
Decrease in fair value	(324)
Balance at December 31, 2015	$ 757

A reconciliation of beginning and ending balances for the Company's fair value measurements using Level 3 inputs is as follows:

	Year Ended December 31,	
(In thousands)	2015	2014
Beginning balance	$ 20	$ 85
Decrease in fair value	(20)	(65)
Ending balance	$ —	$ 20

13. Income Taxes

Income (loss) before income taxes for U.S and non-U.S operations was as follows:

	Year Ended December 31,		
	2015	2014	2013
U.S. loss	$ (16,235)	$ (18,078)	$ (15,622)
Non U.S. loss	(105)	(1,842)	—
	$ (16,340)	$ (19,920)	$ (15,622)

A reconciliation of income taxes computed using the federal statutory rate to the taxes reported in the consolidated statements of operations is as follows:

	Year Ended December 31,		
(In thousands)	2015	2014	2013
Loss before income taxes	$ (16,340)	$ (19,920)	$ (15,622)
Federal statutory rate	34%	34%	34%
Taxes computed at federal statutory rate	(5,556)	(6,773)	(5,311)
State taxes (net of federal benefit)	(392)	(463)	—
Warrants	(118)	(10)	(1,815)
Nondeductible stock compensation	543	48	81
Michigan NOL benefit	—	—	(791)
Net operating loss expirations	—	655	612
Write-off of Section 382 limited NOL's	—	67,781	—
Write-off of Section 383 limited R&D credits	—	1,600	—
Other	57	352	(27)
Adjustment to prior year filed returns	(5,203)	—	—
Change in valuation allowance	10,669	(63,190)	7,251
Reported income taxes	$ —	$ —	$ —

Deferred tax assets consist of the following:

(In thousands)	Year Ended December 31, 2015	2014
Net operating loss carryforwards	$ 13,998	$ 7,092
Employee benefits and stock compensation	2,485	1,897
Research and development costs	4,903	2,184
Fixed assets	453	254
Intangible assets	(477)	(510)
Asset retirement obligation	—	127
Inventory reserve	510	186
Other, net	143	115
Total deferred tax assets	22,015	11,345
Valuation allowance	(22,015)	(11,345)
Net deferred tax assets	$ —	$ —

In 2014, the Company underwent a change in control as defined by Section 382 of the Internal Revenue Code. A change in control is generally defined as a cumulative change of 50% or more in the ownership positions of certain stockholders during a rolling three year period. This change in control resulted in substantial limitations being placed on certain tax attributes including net operating losses and tax credit carryforwards. The limitations are computed based upon several variable factors including the value of the Company on the date of the change in control. The projected annual limitation on the use of the net operating losses that existed prior to September 17, 2014 is $0.8 million. As a result, a significant portion of the net operating losses and tax credit carryforwards will expire prior to their utilization, regardless of the level of future profitability. Accordingly, the Company reduced its net operating losses and tax credit carryforwards in 2014 (with a corresponding adjustment to the valuation allowance) to reflect the amount available to offset future profits. There was not a change of control in 2015.

During the finalization of the 2014 federal tax return, the Company determined there was a net unrealized built-in gain of $8.9 million, which increases pre-ownership change net operating losses available to the Company to offset taxable income in the future. This results in a partial restoration of the net operating losses previously written-off as discussed above. A corresponding valuation allowance was recorded for the increase in deferred tax asset.

As of December 31, 2015, the Company's U.S. federal, and state tax net operating loss carryforwards available to offset future profits, after considering the aforementioned annual Section 382 limit, are $39.3 million and $17.0 million, respectively. These net operating loss carryforwards will expire between 2016 and 2035.

In accordance with the accounting guidance for income taxes, the Company estimated whether recoverability of its deferred tax assets is "more likely than not," based on forecasts of taxable income in the related tax jurisdictions. In this estimate, the Company uses historical results, projected future operating results based upon approved business plans, eligible carry forward periods, tax planning opportunities and other relevant considerations. Based on these factors, including historical losses incurred by the Company, a full valuation allowance for the deferred tax assets, including the deferred tax assets for the aforementioned net operating losses and credits, has been provided since they are not more likely than not to be realized. If the Company achieves profitability, these deferred tax assets may be available to offset future income taxes. The change in the valuation allowance was an increase of $10.7 million and decrease of $63.2 million for the years ended December 31, 2015 and 2014, respectively.

The Company assesses uncertain tax positions in accordance with the guidance for accounting for uncertain tax positions. This pronouncement prescribes a recognition threshold and measurement methodology for recording within the financial statements uncertain tax positions taken, or expected to be taken, in the Company's income tax returns. To the extent the uncertain tax positions do not meet the "more likely than not" threshold, the Company has derecognized such positions. To the extent the uncertain tax positions meet the "more likely than not" threshold, the Company has measured and recorded the highest probable benefit, and have established appropriate reserves for benefits that exceed the amount likely to be sustained upon examination.

A reconciliation of the beginning and ending amounts of uncertain tax provision is as follows:

(In thousands)	Unrecognized Income Tax Benefits
Balance at December 31, 2013	$ 900
Decrease in prior year tax positions	(900)
Balance at December 31, 2014 and 2015	$ —

It is not anticipated that the unrecognized tax benefits will significantly increase or decrease within the next twelve months.

The Company files U.S. federal, Michigan, Massachusetts, Colorado, Illinois and California income tax returns. Due to the Company's net operating loss carryforwards, Federal income tax returns from incorporation are still subject to examination. Michigan tax returns for the year ended December 31, 2013 and forward are subject to examination. California tax returns for the year ended December 31, 2013 and forward are subject to examination.

14. Employee Savings Plan

The Company has a 401(k) savings plan that allows participating employees to contribute a portion of their salary, subject to annual limits and minimum qualifications. The Board may, at its sole discretion, approve Company matching contributions to the plan. The Company made contributions of $0.5 million, $0.3 million and $0.1 million for the years ended December 31, 2015, 2014 and 2013, respectively.

15. Concentration of Credit

Revenue from one customer, a distributor in the U.S., represented 66% and 76% of total revenue during the years ended December 31, 2015 and 2014, respectively. Accounts receivable from the same customer accounted for 76% and 71% of the outstanding accounts receivable as of December 31, 2015 and 2014, respectively. The next largest customer represented 12% and 10% of revenue for the year ended December 31, 2015 and 2014, respectively. Accounts receivable from the next largest customer accounted for 8% and 14% of the outstanding accounts receivable as of December 31, 2015 and 2014, respectively.

16. Commitments and Contingencies

Licenses, Royalties and Collaborative Agreements

Corning Incorporated — In December 2002, the Company entered into an agreement with Corning Incorporated (Corning) that granted Corning an exclusive sublicense relating to the Company's cell transfection technology. Under the terms of the agreement, the Company retains exclusive rights to the applications of the technologies involving cells for therapeutic applications. In addition, the agreement provides for future royalty payments on net sales of licensed products sold under the sublicense amounting to 5% of such sales up to $50.0 million. However, the Company does not expect to receive material revenue from this source for several years, if ever.

RealBio Technologies — In May 2009, the Company entered into an agreement with RealBio Technologies, Inc. (RealBio) that granted RealBio an exclusive license to utilize our technology outside of the Company's core area of focus - human regenerative medicine. In return for this license, the Company received a minority equity interest in RealBio, which was not material as of December 31, 2015 or 2014.

Matricel — In October 2015, the Company signed a long-term supply agreement with Matricel GmbH for the ACI-Maix collagen membrane used in the manufacture of MACI™. Matricel supplied ACI-Maix membranes used in the production of MACI when it was previously marketed outside the U.S. by Genzyme Corporation, a Sanofi company. Under the agreement, the Company has committed to purchase $0.3 million of material in 2016. In the event that the Biologics License Application is approved for MACI, annual purchase commitments would equal approximately $0.6 million per year. The agreement is effective until December 31, 2022 and contains a 5-year renewal option by the Company and an additional 5-year automatic renewal, unless otherwise terminated.

Manufacture, Supply and Other Agreements — The Company has entered into various agreements relating to the manufacture of its products and the supply of certain components. If the manufacturing or supply agreements expire or are otherwise terminated, the Company may not be able to identify and obtain ancillary materials that are necessary to develop its product and such expiration and termination could have a material effect on the Company's business.

Contractual Obligations

The Company leases facilities in Ann Arbor, Michigan; Cambridge, Massachusetts and Kastrup, Denmark. In March 2016, the Company amended its current lease in Cambridge to extend the terms until March 2022. In addition to the property leases, the Company also leases an offsite warehouse, various vehicles and computer equipment.

Future minimum payments related to Vericel's operating and capital leases are as follows:

		Payments Due by Period					
Contractual Obligations	Total	2016	2017	2018	2019	2020	More than 5 Years
Operating leases	$ 27,693	$ 4,310	$ 4,890	$ 4,572	$ 4,260	$ 4,386	$ 5,275
Purchase commitments	300	300	—	—	—	—	—
Capital leases	118	43	43	32	—	—	—
Total	$ 28,111	$ 4,653	$ 4,933	$ 4,604	$ 4,260	$ 4,386	$ 5,275

Rent expense for the years ended December 31, 2015, 2014 and 2013, was $4.9 million, $2.5 million and $1.0 million, respectively.

17. Subsequent Events

On March 8, 2016, Vericel entered into a $15.0 million debt financing with Silicon Valley Bank (SVB). The debt financing consists of a $3.0 million term loan available immediately upon the closing, $2.0 million term loan available upon the FDA's approval of the MACI BLA and up to $10.0 million revolving line of credit. The term loans are interest only (indexed to Wall Street Journal (WSJ) Prime plus 0.75%) until March 1, 2017 followed by 36 equal monthly payments of principal plus interest maturing February 1, 2020. The revolving credit is limited to a borrowing base calculated using eligible accounts receivable and maturing March 8, 2018 with an interest rate indexed to WSJ Prime plus 0.25% up to 0.75%. Monthly, the Company must remain in compliance with an adjusted quick ratio greater than or equal to 1.10 to 1.0. The adjusted quick ratio is the ratio of (a) unrestricted cash and cash equivalents and net billed accounts receivable to (b) current liabilities minus the current portion of deferred revenue and warrant liabilities.

18. Supplementary Quarterly Financial Information (unaudited)

Quarterly earnings per share amounts may not sum to the totals for each of the years, since quarterly computations are based on weighted average common shares outstanding during each quarter.

In thousands, except per share data)	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Year
2015					
Revenues	$ 10,849	$ 13,590	$ 11,309	$ 15,420	$ 51,168
Gross profit	5,281	6,689	4,537	8,191	24,698
Loss from operations	(4,572)	(2,265)	(4,877)	(4,957)	(16,671)
Net loss	(4,862)	(2,152)	(4,416)	(4,910)	(16,340)
Net loss per share (Basic and Diluted)	(0.27)	(0.16)	(0.26)	(0.28)	(0.97)
2014					
Revenues[a]	$ —	$ 4,432	$ 9,658	$ 14,706	$ 28,796
Gross profit (loss)	—	(577)	4,126	7,954	11,503
Loss from operations	(4,645)	(8,522)	(8,022)	(2,345)	(23,534)
Net loss[b]	(5,995)	(4,638)	(6,917)	(2,370)	(19,920)
Net loss per share (Basic and Diluted)	(1.26)	(0.94)	(0.82)	(0.17)	(2.23)

(a) Revenue from commercial operations began in June 2014 following the acquisition of the CTRM business. Prior to June 2014, Vericel was a development stage entity.

(b) The net loss in the second quarter of 2014 includes a $3.5 million bargain purchase gain as a result of the CTRM business acquisition.

Item 9. ***Changes in and Disagreements with Accountants on Accounting and Financial Disclosure***

There are none to report.

Item 9A. ***Controls and Procedures***

Evaluation of Disclosure Controls and Procedures

The Company has established disclosure controls and procedures designed to ensure that information required to be disclosed by the Company in the reports that it files or submits under the Securities and Exchange Act of 1934, as amended (the "Exchange Act"), is recorded, processed, summarized and reported within the time periods specified in the Commission's rules and forms, and that such information is accumulated and communicated to management of the Company, with the participation of its Chief Executive Officer and Chief Financial Officer (its "Certifying Officers"), as appropriate, to allow timely decisions regarding required disclosure.

Management of the Company, with the participation of its certifying officers, evaluated the effectiveness of the Company's disclosure controls and procedures as defined in Rules l3a-15(e) and l5d-15(e) under the Exchange Act. Based on the evaluation as of December 31, 2015, our Certifying Officers concluded that the Company's disclosure controls and procedures were not effective because of the material weakness in our internal control over financial reporting as described below.

Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Rule l3a-l5(f) under the Exchange Act). Our internal control over financial reporting is a process designed under the supervision of our CEO and CFO to provide reasonable assurance regarding the reliability of financial reporting and the preparation of our financial statements for external purposes in accordance with generally accepted accounting principles. Management evaluated the effectiveness of our internal control over financial reporting using the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in *Internal Control - Integrated Framework* (2013). Management, under the supervision and with the participation of the CEO and CFO, assessed the effectiveness of our internal control over financial reporting as of December 31, 2015.

A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the Company's annual or interim financial statements will not be prevented or detected on a timely basis. The material weakness relates to the design of controls to mitigate segregation of duties conflicts in our financial management/ERP software. Specifically, our Controller had access to modules in the financial management software beyond necessary to perform the job of Controller, and the controls that were designed and implemented to be performed by the Controller to mitigate the incompatible duties of other financial personnel were ineffective. Thus, the material weakness impacted substantially all financial statement accounts and all financial statement assertions. While the material weakness did not result in any financial statement adjustments during the year ended December 31, 2015, it could result in misstatements to substantially all accounts and disclosures that would result in a material misstatement to the annual or interim consolidated financial statements that would not be prevented or detected. Accordingly, our management has determined that this control deficiency constitutes a material weakness.

Because of this material weakness, management concluded that the Company did not maintain effective internal control over financial reporting as of December 31, 2015, based on criteria in *Internal Control - Integrated Framework* issued by COSO.

The effectiveness of the Company's internal control over financial reporting as of December 31, 2015 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which appears in Item 8 of this form 10-K.

Plan for Remediation of Material Weakness

With the oversight of senior management and our audit committee, we have taken steps to remediate the material weakness noted above. Beginning in January 2016, we have modified and removed the Controller's access to modules in the financial management software.

In January 2016, with the oversight of senior management and our audit committee, we have taken steps to begin to design a remediation plan. Plan steps and actions taken thus far are below.

1) Remove inappropriate permissions. When the permissions error was located in January 2016, inappropriate access was immediately removed. IT staff responsible for the maintenance of Active Directory Group assignments made changes to the Controller's permissions and by January 25, 2016, the Controller's permissions were corrected to remove the incompatible access.

2) Enable and/or design reporting functionality that provides an audit trail for journal entries, module access and other relevant user actions. In addition to the corrections to the Controller's permissions, the FastPath software vendor was contacted to customize an additional report that is needed to document the audit trail / life cycle of each journal entry in the ERP. The new report captures journal entries that originate in the general ledger together with the user that initiated each journal entry, the user the changed each journal entry, and the user that posted each journal entry in the ERP.

3) Review remaining conflicts and confirm whether Controller's review would effectively mitigate the risk associated with the permissions.

Changes in Internal Control over Financial Reporting

There have been no changes in internal control over financial reporting during the quarter ended December 31, 2015 that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

Item 9B. ***Other Information***

On March 8, 2016, we entered into amendments to our 2005 and 2008 lease agreements for our Cambridge, Massachusetts headquarters. The amendment to the 2008 lease agreement provides for an additional 306 rentable square feet of space, extends the term of the lease for an additional five years through February 28, 2022, and gives us an option to extend the term for one additional period of five years. In addition, the amendment provides us with a right of first offer to rent an additional 12,795 rentable square feet of space, subject to availability and the satisfaction of certain other conditions specified in the amendment. The annual lease rate will range from $71 per rentable square foot commencing on March 1, 2017 to $79.91 per rentable square foot for the period commencing on March 1, 2021. In addition, the landlord has agreed to provide us a leasehold improvement allowance under this lease agreement of $0.4 million.

The amendment to the 2005 lease agreement also extends the term of our lease through February 28, 2022, and provides us with an option to the extend the term for one additional period of five years. Similar to the amendment to the 2008 lease agreement, the annual lease rate will range from $71 per rentable square foot commencing on March 1, 2017 to $79.91 per rentable square foot for the period commencing on March 1, 2021. In addition, the landlord has agreed to provide us a leasehold improvement allowance under this lease agreement of $1.6 million.

PART III

Certain information required by Part III is omitted from this Annual Report on Form 10-K, and is incorporated by reference to our definitive Proxy Statement to be filed with the Securities and Exchange Commission pursuant to Regulation 14A in connection with our 2015 Annual Meeting of Shareholders scheduled for May 4, 2016.

Item 10. ***Directors, Executive Officers and Corporate Governance***

The information relating to our directors is incorporated by reference to the Proxy Statement as set forth under the caption "Election of Directors." Information relating to our executive officers is set forth in Part I of this Report under the caption "Executive Officers."

Information with respect to delinquent filings pursuant to Item 405 of Regulation S-K is incorporated by reference to the Proxy Statement as set forth under the caption "Section 16(a) Beneficial Ownership Reporting Compliance."

Item 11. ***Executive Compensation***

The information relating to executive compensation is incorporated by reference to the Proxy Statement under the caption “Executive Compensation and Related Information.”

Item 12. ***Security Ownership of Certain Beneficial Owners and Management, and Related Shareholder Matters***

The information relating to ownership of our equity securities by certain beneficial owners and management is incorporated by reference to the Proxy Statement as set forth under the caption “Stock Ownership of Certain Beneficial Owners and Management.”

Item 13. ***Certain Relationships and Related Transactions, and Director Independence***

The information relating to certain relationships and related person transactions is incorporated by reference to the Proxy Statement under the caption “Certain Relationships and Related Party Transactions.”

Item 14. ***Principal Accountant Fees and Services***

The information relating to principal accountant fees and services is incorporated by reference to the Proxy Statement under the caption “Ratification of Appointment of Independent Registered Public Accounting Firm.”

PART IV

Item 15. ***Exhibits and Financial Statement Schedules***

(a) The following documents are filed as part of this Annual Report on Form 10-K:

1. Financial Statements (see Item 8).
2. All information is included in the Financial Statements or Notes thereto.
3. Exhibits:
   See Exhibit Index.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Date: March 14, 2016

Vericel Corporation

/s/ DOMINICK C. COLANGELO
Dominick C. Colangelo
President and Chief Executive Officer
(Principal Executive Officer)

Pursuant to the requirements of the Securities Exchange Act of 1934, this Annual Report on Form 10-K has been signed on behalf of the registrant on March 14, 2016 by the following persons in the capacities indicated.

Signature	Title
/s/ DOMINICK C. COLANGELO Dominick C. Colangelo	*President and Chief Executive Officer, Director* *(Principal Executive Officer)*
/s/ GERARD J. MICHEL Gerard J. Michel	*Chief Financial Officer and Vice President of Corporate Development* *(Principal Financial and Accounting Officer)*
/s/ ROBERT L. ZERBE, M.D. Robert L. Zerbe, M.D.	*Chairman of the Board of Directors*
/s/ ALAN L. RUBINO Alan L. Rubino	*Director*
/s/ HEIDI M. HAGEN Heidi M. Hagen	*Director*
/s/ STEVEN C. GILMAN Steven C. Gilman	*Director*
/s/ KEVIN F. MCLAUGHLIN Kevin F. McLaughlin	*Director*
/s/ PAUL K. WOTTON Paul K. Wotton	*Director*

EXHIBIT INDEX

Exhibit No.	Description
3.1	Restated Articles of Incorporation of the Company, filed as Exhibit 4.1 to the Company's Current Report on Form 8-K filed on December 17, 2009, incorporated herein by reference.
3.2	Certificate of Amendment to Restated Articles of Incorporation of the Company dated February 9, 2010, filed as Exhibit 3.2 to the Company's Post-Effective Amendment No. 1 to Form S-1 filed on March 31, 2010, incorporated herein by reference.
3.3	Certificate of Amendment to Restated Articles of Incorporation of the Company dated March 22, 2011, attached as Exhibit 3.1 to the Company's Current Report on Form 8-K filed on March 25, 2011, incorporated herein by reference.
3.4	Certificate of Amendment to the Restated Articles of Incorporation of the Company, dated November 21, 2014, attached as Exhibit 3.1 to Vericel's Current Report on Form 8-K filed on November 24, 2014, incorporated herein by reference.
3.5	Certificate of Designation, Preferences and Rights, of the Company classifying and designating the Series A Junior Participating Cumulative Preferred Stock, attached as Exhibit 3.1 to the Company's Current Report on Form 8-A filed on August 12, 2011, incorporated herein by reference.
3.6	Amended and Restated Certificate of Designations, Preferences and Rights, of the Company classifying and designating the Series B-1 Non-Voting Convertible Preferred Stock and the Series B-2 Voting Convertible Preferred Stock, attached as Exhibit 3.1 to the Company's Current Report on Form 8-K filed on August 12, 2013, incorporated herein by reference.
3.7**	Certificate of Designations, Preferences and Rights and Limitations of Series A Convertible Preferred Stock.
3.8	Bylaws, as amended, attached as Exhibit 3.1 to the Company's Current Report on Form 8-K filed on November 12, 2010, incorporated herein by reference.
4.1	Form of Senior Indenture for Senior Debt Securities, filed as Exhibit 4.1 to the Company's Registration Statement on Form S-3 filed on June 29, 2015 and incorporated herein by reference.
4.2	Form of Indenture for Subordinated Debt Securities, filed as Exhibit 4.3 to the Company's Registration Statement on Form S-3 filed on June 29, 2015 and incorporated herein by reference.
4.3	Shareholder Rights Agreement, dated as of August 11, 2011, between the Company and Continental Stock Transfer & Trust Company, as Rights Agent, attached as Exhibit 4.3 to the Company's Current Report on Form 8-A filed on August 12, 2011, incorporated herein by reference.
4.4	Amendment to Shareholder Rights Agreement, dated as of March 9, 2012, between the Company and Continental Stock Transfer & Trust Company, as Rights Agent, attached as Exhibit 4.1 to the Company's Current Report on Form 8-K filed on March 9, 2012, incorporated herein by reference.
10.1 #	Form of Indemnification Agreement, attached as Exhibit 10.1 to the Company's Registration Statement on Form S-1 (No. 333-15415), filed on November 1, 1996, incorporated herein by reference.
10.2 #	Amended and Restated 1992 Incentive and Non-Qualified Stock Option Plan and forms of agreements thereunder, attached as Exhibit 10.5 to the Company's Registration Statement on Form S-1 (No. 333-15415), filed on November 1, 1996, incorporated herein by reference.

Exhibit No.	Description
10.4	License Agreement, dated March 13, 1992, between the Company and the University of Michigan and amendments thereto dated March 13, 1992, October 8, 1993 and June 21, 1995, attached as Exhibit 10.17 to the Company's Registration Statement on Form S-1 (No. 333-15415), filed on November 1, 1996, incorporated herein by reference.
10.5 #	2001 Stock Option Plan, attached as Exhibit 10.72 to the Company's Annual Report on Form 10-K for the year ended June 30, 2002, incorporated herein by reference.
10.6 #	2004 Equity Incentive Plan, attached as Exhibit 10.82 to Amendment No. 1 to the Company's Quarterly Report on Form 10-Q/A for the quarter ended September 30, 2004, incorporated herein by reference.
10.7 #	Form of Option and Restricted Stock Award Agreements for Grants under 2004 Equity Incentive Plan, attached as Exhibit 10.84 to the Company's Annual Report on Form 10-K for the year ended June 30, 2005, incorporated herein by reference.
10.8	Amendment dated December 5, 2002 to License Agreement with the University of Michigan, attached as Exhibit 10.87 to the Company's Annual Report on Form 10-K for the year ended June 30, 2005, incorporated herein by reference.
10.9 #	2004 Equity Incentive Plan, as amended, attached as Exhibit 99.1 to the Company's Current Report on Form 8-K filed on November 8, 2006, incorporated herein by reference.
10.10 #	Forms of Grant Notice and Stock Option Agreement for Grants under 2004 Equity Incentive Plan, as amended, attached as Exhibit 99.2 to the Company's Current Report on Form 8-K filed on November 8, 2006, incorporated herein by reference.
10.11	Form of Purchase Agreement, attached as Exhibit 10.3 to the Company's Current Report on Form 8-K filed on October 16, 2007, incorporated herein by reference.
10.12	Form of Warrant, attached as Exhibit 10.4 to the Company's Current Report on Form 8-K filed on October 16, 2007, incorporated herein by reference.
10.13	Standard Lease between the Company and Domino's Farms Office Park, L.L.C. dated January 31, 2007, as amended, (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the SEC on April 9, 2013).
10.15	Class A Warrant Agreement, dated as of January 21, 2010, by and between the Registrant and Continental Stock Transfer & Trust Company (incorporated herein by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K filed with the SEC on January 27, 2010).
10.16	Class B Warrant Agreement, dated as of January 21, 2010, by and between the Registrant and Continental Stock Transfer & Trust Company (incorporated herein by reference to Exhibit 4.2 to the Company's Current Report on Form 8-K filed with the SEC on January 27, 2010).
10.17	Underwriting Agreement, dated as of January 15, 2010, and between the Registrant and Oppenheimer & Co. Inc. (incorporated herein by reference to Exhibit 1.1 to the Company's Current Report on Form 8-K filed with the SEC on January 15, 2010).
10.18 #	Form of indemnification agreement entered into between the Company and each of its directors, attached as Exhibit 10.1 to the Company's Current Report on Form 8-K filed on August 31, 2010, incorporated herein by reference.

Exhibit No.	Description
10.19	Amended Code of Business Conduct and Ethics, attached as Exhibit 14.1 to the Company's Current Report on Form 8-K filed on August 31, 2010, incorporated herein by reference.
10.20*	Contract Manufacturing and Supply Agreement, dated as of November 8, 2010, by and between Vention Medical (formerly ATEK Medical, LLC) and the Company (incorporated herein by reference to Exhibit 10.30 to the Company's Annual Report on Form 10-K for the year ended December 31, 2010).
10.21	Warrant agreement, dated as of December 15, 2010, by and between the Registrant and Continental Stock Transfer & Trust Company (incorporated herein by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K filed with the SEC on December 16, 2010).
10.22	Underwriting Agreement, dated as of December 10, 2010, and between the Registrant and Stifel, Nicolaus & Company, Incorporated, Needham & Company, LLC and Roth Capital Partners (incorporated herein by reference to Exhibit 1.1 to the Company's Current Report on Form 8-K filed with the SEC on December 10, 2010).
10.26#	Senior Executive Incentive Bonus Plan (incorporated herein by reference to Exhibit 10.3 to the Company's Current Report on Form 8-K, filed on March 25, 2011).
10.27	At Market Issuance Sales Agreement, dated June 16, 2011, by and among the Company and MLV & Co. LLC ("MLV") (formerly McNicoll, Lewis & Vlak LLC),(incorporated herein by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on June 16, 2011).
10.28	Master Services Agreement by and between the Company and PPD, made and entered into as of September 23, 2011 (the "Master Services Agreement") (incorporated herein by reference to Exhibit 10.28 to the Company's Annual Report on Form 10-K for the year ended December 31, 2012).
10.29	Project Addendum to the Master Services Agreement, dated as of November 16, 2011 (incorporated herein by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed with the SEC November 22, 2011).
10.3	Registration Rights Agreement, dated March 9, 2012, between the Company and Eastern Capital Limited, attached as Exhibit 10.2 to the Company's Current Report on Form 8-K filed on March 9, 2012, incorporated herein by reference.
10.31	Securities Purchase Agreement, dated as of March 9, 2012, by and between the Company and Eastern Capital Limited (incorporated herein by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the SEC on March 9, 2012).
10.32#	Employment Agreement, dated as of April 3, 2013, by and between the Company and Daniel R. Orlando (incorporated herein by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed on April 9, 2013).
10.35	Form of Warrant Exchange Agreement, dated June 27, 2012 (incorporated herein by reference to Exhibit 10.1 to the Company's Report on Form 8-K, filed on June 27, 2012).
10.36#	Executive Resignation Agreement, executed on December 14, 2012, by and between the Company and Tim M. Mayleben (incorporated herein by reference to Exhibit 10.36 to the Company's Annual Report on Form 10-K for the year ended December 31, 2012, filed on March 18, 2013).
10.37#	Executive Employment Agreement, executed March 4, 2013 and effective March 1, 2013, by and between the Company and Dominick C. Colangelo (incorporated herein by reference to Exhibit 10.1 to the Company's Report on Form 8-K, filed on March 9, 2013).

Exhibit No.	Description
10.38	Form of Warrant Exercise Agreement, dated September 24, 2013 (incorporated herein by reference to Exhibit 10 to the Company's Report on Form 8-K, filed on September 27, 2013).
10.39	Consulting Services Agreement, executed January 9, 2014 and effective January 1, 2014, by and between the Company and Ronnda L. Bartel (incorporated herein by reference to Exhibit 10.1 to the Company's Report on Form 8-K, filed on January 14, 2014).
10.4	Underwriting Agreement, dated as of August 13, 2013, by and between the Company and Aegis Capital Corp. (incorporated herein by reference to Exhibit 1.1 to the Company's Registration Statement on Form S-1 (File No. 333-188186) filed on August 13, 2013).
10.41	Amendment No.1 to At Market Issuance Sales Agreement, dated November 29, 2013, by and between the Company and MLV (incorporated herein by reference to Exhibit 1.1 to the Company's Report on Form 8-K, filed on November 29, 2013).
10.42	Purchase Agreement, dated as of January 21, 2014, by and between the Company and Lincoln Park Capital Fund, LLC (incorporated herein by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on January 27, 2014).
10.43	Registration Rights Agreement, dated as of January 21, 2014, by and between the Company and Lincoln Park Capital Fund, LLC (incorporated herein by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed on January 27, 2014).
10.44	Asset Purchase Agreement, dated as of April 19, 2014, by and between the Company and Sanofi (incorporated herein by reference to Exhibit 2.1 to the Company's Current Report on Form 8-K filed on June 2, 2014).
10.45#	Employment Agreement, dated May 13, 2014, by and between the Company and Gerard J. Michel (incorporated herein by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on June 4, 2014).
10.46**	Transition Services Agreement, dated as of May 30, 2014, by and between the Company and Genzyme Corporation, as amended.
10.47**	Transition Supply Agreement, dated as of May 30, 2014, by and between the Company and Genzyme Corporation, as amended.
10.48	Form of Warrant Exercise Agreement, dated July 9, 2014 (incorporated herein by reference to Exhibit 10 to the Company's Report on Form 8-K, filed on July 11, 2014).
10.51#	Employment Agreement, dated September 25, 2014, by and between the Company and Ross Tubo (incorporated herein by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on September 25, 2014).
10.52#	Employment Agreement, dated September 25, 2014, by and between the Company and David Recker (incorporated herein by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed on September 25, 2014).
10.53#	Second Amended and Restated 2009 Omnibus Incentive Plan (previously filed as Appendix II to the Company's definitive proxy statement on Schedule 14A, filed on October 21, 2014 and incorporated herein by reference).

Exhibit No.	Description
10.54#	Employment Agreement, dated November 6, 2014, by and between the Company and Gerard Michael (incorporated herein by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on November 12, 2014).
10.55#	Amended and Restated Non-employee Director Compensation Guidelines.
10.56	Securities Exchange Agreement, dated December 18, 2015, by and between the Company and Stonepine Capital, LP (incorporated herein by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on December 18, 2015).
10.57**	Lease Agreement, dated November 30, 2005, by and between the Company and Up 64 Sidney Street, LLC, as amended.
10.58**	Lease Agreement, dated January 23, 2008, by and between the Company and Up 64 Sidney Street, LLC, as amended.
10.61*	ACI-Maix Supply Agreement, dated October 20, 2015, by and between the Company and Matricel GmbH (incorporated herein by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2015 filed on November 11, 2015).
10.62	Vericel Corporation 2015 Employee Stock Purchase Plan (incorporated herein by reference to Appendix I of the Company's Proxy Statement on Schedule 14A for the fiscal year ended December 31, 2014, filed on March 25, 2015).
10.63**	Third Amendment to Standard Lease between the Company and Domino's Farms Office Park, L.L.C., dated March 2, 2015.
21.1**	Subsidiaries of Registrant.
23.1**	Consent of Independent Registered Public Accounting Firm.
31.1**	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2**	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1**	Certification of Chief Executive Officer and Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS**	XBRL Instance Document
101.SCH**	XBRL Taxonomy Extension Schema Document
101.CAL**	XBRL Taxonomy Extension Calculation Linkbase Document
101.LAB**	XBRL Taxonomy Extension Label Linkbase Document
101.PRE**	XBRL Taxonomy Extension Presentation Linkbase Document
101.DEF**	XBRL Taxonomy Extension Definition Linkbase Document

Management contract or compensatory plan or arrangement covering executive officers or directors of Vericel.

* Confidential treatment status has been granted as to certain portions thereto, which portions are omitted and filed separately with the Securities and Exchange Commission.
** Filed herewith.

GLOSSARY

TERM	DEFINITION
Adverse Event	Any adverse change in health or “side-effect” that occurs in a person participating in a clinical trial, from the time they consent to joining the trial until a pre-specified period of time after their treatment has been completed.
Autologous (Patient Specific)	Originating from the patient receiving treatment. (Vericel uses only autologous cells)
BLA — Biologics License Application	An application containing product safety, efficacy and manufacturing information required by the FDA to market biologics products in the U.S.
CLI — Critical Limb Ischemia	A vascular disease characterized by insufficient blood flow in the lower extremities that causes severe pain, tissue loss or both.
CMC — Chemistry, Manufacturing, and Control	The composition, manufacture, and control of the drug substance and the drug product. It is information on the identification, quality, purity, and strength of the investigational product.
Controlled Clinical Trial	A clinical study that compares patients receiving a specific treatment to patients receiving an alternate treatment for the condition of interest. The alternate treatment may be another active treatment, standard of care for the condition and/or a placebo (inactive) treatment.
DCM — Dilated Cardiomyopathy	A chronic cardiac disease where expansion of the patient’s heart reduces the pumping function to a point that the normal circulation of blood cannot be maintained.
Double-Blind Clinical Trial	Clinical trials in which neither the patient nor the physician know if the patient received the experimental treatment or a control/placebo.
FDA — Food & Drug Administration	The U.S. FDA ensures that medicines, medical devices, and radiation-emitting consumer products are safe and effective. Authorized by Congress to enforce the Federal Food, Drug, and Cosmetic Act and several other public health laws, the agency monitors the manufacture, import, transport, storage, and sale of $1 trillion worth of goods annually.
GMP — Good Manufacturing Practice	GMP regulations require that manufacturers, processors, and packagers of drugs, medical devices, some food, and blood take proactive steps to ensure that their products are safe, pure, and effective. GMP regulations require a quality approach to manufacturing, enabling companies to minimize or eliminate instances of contamination, mix-ups, and errors.
Hematopoietic Stem Cells	Stem cells that give rise to all the blood cell types including myeloid (monocytes and macrophages, neutrophils, basophils, eosinophils, erythrocytes, megakaryocytes/platelets, dendritic cells), and lymphoid lineages (T-cells, B-cells, NK-cells).
IMPACT-DCM	Vericel’s U.S. Phase 2 dilated cardiomyopathy clinical trial.
IND — Investigational New Drug	An application submitted to the FDA for a new drug or biologic that, if allowed, will be used in a clinical trial.
Ischemia	A shortage or inadequate flow of blood to a body part (commonly an organ or tissue) caused by a constriction or obstruction of the blood vessels supplying it.
LVEF — Left Ventricular Ejection Fraction	The fraction of blood pumped out of the left ventricle with each heartbeat.
Mesenchymal stromal cells	Connective tissue cells that, in the case of bone marrow derived MSC, function to support blood forming cells and secrete anti-inflammatory factors.
M2 anti-inflammatory macrophages	Specialized blood cells that remove damaged tissue and bacteria and secrete anti-inflammatory factors.
Open-label Clinical Trial	A trial in which both the treating physician and the patient know whether they are receiving the experimental treatment or control/placebo treatment.
Orphan Drug Designation	“Orphan drug” refers to a drug or biologic that is intended for use in the treatment of a rare disease or condition. Orphan drug designation from the U.S. Food and Drug Association (FDA) qualifies the sponsor to receive certain benefits from the Government in exchange for developing the drug for a rare disease or condition. The drug must then go through the FDA marketing approval process like any other drug or biologic which evaluates for safety and efficacy. Usually a sponsor receives a quicker review time and lower application fees for an orphan product.

TERM	DEFINITION
Phase 1 Clinical Trial	A Phase 1 trial represents an initial study in a small group of patients to test for safety and other relevant factors.
Phase 2 Clinical Trial	A Phase 2 trial represents a study in a moderate number of patients to assess the safety and efficacy of a product.
Phase 2b Clinical Trial	A Phase 2b trial is a moderately-sized Phase 2 trial that is more specifically designed assess the efficacy of a product than a Phase 2a trial.
Phase 3 Clinical Trial	Phase 3 studies are initiated to establish safety and efficacy in an expanded patient population at multiple clinical trial sites and are generally larger than trials in earlier phases of development.
Prospective Clinical Trial	A clinical trial in which participants are identified and then followed throughout the study going forward in time.
Randomized Clinical Trial	A clinical trial in which the participants are assigned randomly to different treatment groups.
Somatic Cell	Any of the cells responsible for forming the body of an organism such as internal organs, bones, skin, connective tissues and blood.
Stem Cell	Unspecialized (undifferentiated) cells that retain the ability to divide throughout a lifetime and give rise to more specialized (differentiated) cells which take the place of cells that die or are lost. In culture, these undifferentiated cells possess the ability to divide for indefinite periods in culture and may give rise to highly specialized cells.

VERICEL CORPORATION

**CERTIFICATE OF DESIGNATION OF PREFERENCES,
RIGHTS AND LIMITATIONS
OF
SERIES A CONVERTIBLE PREFERRED STOCK**

PURSUANT TO THE MICHIGAN BUSINESS CORPORATION ACT

VERICEL CORPORATION, a Michigan corporation (the "**Corporation**"), in accordance with the provisions of the Michigan Business Corporation Act (the "**MBCA**") does hereby certify that, in accordance with Section 302 of the MBCA and the authority conferred on its Board of Directors (the "**Board**") by the Restated Articles of Incorporation of the Corporation, as amended (the "**Articles of Incorporation**"), the following resolution was duly adopted by the Board on December 17, 2015:

RESOLVED, pursuant to authority expressly set forth in the Articles of Incorporation, the issuance of a series of Preferred Stock designated as the Series A Convertible Preferred Stock, no par value, of the Corporation is hereby authorized and the designation, number of shares, powers, preferences, rights, qualifications, limitations and restrictions thereof (in addition to any provisions set forth in the Articles of Incorporation that are applicable to the Preferred Stock of all classes and series) are hereby fixed, and the Certificate of Designation of Preferences, Rights and Limitations of Series A Convertible Preferred Stock (the "**Certificate of Designation**") is hereby approved as follows:

SERIES A CONVERTIBLE PREFERRED STOCK

Section 1. Definitions. For the purposes hereof, the following terms shall have the following meanings:

"**Affiliate**" means any person or entity that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a person or entity, as such terms are used in and construed under Rule 144 under the Securities Act of 1933. With respect to a Holder, any investment fund or managed account that is managed on a discretionary basis by the same investment manager as such Holder will be deemed to be an Affiliate of such Holder.

"**Alternate Consideration**" shall have the meaning set forth in Section 7(b).

"**Beneficial Ownership Limitation**" shall have the meaning set forth in Section 6(c).

"**Business Day**" means any day except Saturday, Sunday, any day which shall be a federal legal holiday in the United States or any day on which banking institutions in the State of New York are authorized or required by law or other governmental action to close.

"**Buy-In**" shall have the meaning set forth in Section 6(d)(iii).

"**Closing Sale Price**" means, for any security as of any date, the last closing trade price for such security prior to 4:00 p.m., New York City time, on the principal securities exchange or trading market where such security is listed or traded, as reported by Bloomberg, L.P. (or an equivalent, reliable reporting service mutually acceptable to and hereafter designated by Holders of a majority of the then-outstanding Series A Preferred Stock and the Corporation), or if the foregoing do not apply, the last trade price of such security in the over-the-counter market on the electronic bulletin board for such security as reported by Bloomberg, L.P., or, if no last trade price is reported for such security by Bloomberg, L.P., the average of the bid prices of any market makers for such security as reported on the OTC Pink Market by OTC Markets Group, Inc. If the Closing Sale Price cannot be calculated for a security on a particular date on any of the foregoing bases, the Closing Sale Price of such security on such date shall be the fair market value as determined in good faith by the Board.

"**Commission**" means the Securities and Exchange Commission.

"**Common Stock**" means the Corporation's common stock, no par value, and stock of any other class of securities into which such securities may hereafter be reclassified.

"**Conversion Date**" shall have the meaning set forth in Section 6(a).

"**Conversion Price**" shall mean $1.92, as adjusted pursuant to paragraph 7 hereof.

"**Conversion Ratio**" shall have the meaning set forth in Section 6(b).

"**Conversion Shares**" means, collectively, the shares of Common Stock issuable upon conversion of the shares of Series A Preferred Stock in accordance with the terms hereof.

"**Daily Failure Amount**" means the product of (x) .005 multiplied by (y) the Closing Sale Price of the Common Stock on the applicable Share Delivery Date.

"**Distributions**" shall have the meaning set forth in Section 5(a).

"**DTC**" shall have the meaning set forth in Section 6(a).

"**DWAC Delivery**" shall have the meaning set forth in Section 6(a).

"**Exchange Act**" means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

"**Fundamental Transaction**" shall have the meaning set forth in Section 7(b).

"**Holder**" means any holder of Series A Preferred Stock.

"**Issuance Date**" means December 23, 2015.

"**Junior Securities**" shall have the meaning set forth in Section 5(a).

"**MBCA**" shall mean the Michigan Business Corporation Act.

"**Notice of Conversion**" shall have the meaning set forth in Section 6(a).

"**Parity Securities**" shall have the meaning set forth in Section 5(a).

"**Person**" means any individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind.

"**Senior Securities**" shall have the meaning set forth in Section 5(a).

"**Series A Preferred Stock**" shall have the meaning set forth in Section 2(a).

"**Series A Preferred Stock Register**" shall have the meaning set forth in Section 2(b).

"**Share Delivery Date**" shall have the meaning set forth in Section 6(d)(i).

"**Stated Value**" shall mean $1,920.00 per share.

"**Trading Day**" means a day on which the Common Stock is traded for any period on a principal securities exchange or if the Common Stock is not traded on a principal securities exchange, on a day that the Common Stock is traded on another securities market on which the Common Stock is then being traded.

Section 2. Designation, Amount and Par Value; Assignment.

(a) The series of preferred stock designated by this Certificate of Designation shall be designated as the Corporation's Series A Convertible Preferred Stock (the "**Series A Preferred Stock**") and the number of shares so designated shall be 1,250. Each share of Series A Preferred Stock shall have no par value.

(b) The Corporation shall register shares of the Series A Preferred Stock, upon records to be maintained by the Corporation for that purpose (the "**Series A Preferred Stock Register**"), in the name of the Holders thereof from time to time. The Corporation may deem and treat the registered Holder of shares of Series A Preferred Stock as the absolute owner thereof for the purpose of any conversion thereof and for all other purposes. Shares of Series A Preferred Stock may be issued solely in book-entry form or, if requested by any Holder, such Holder's shares may be issued in certificated form. The Corporation shall register the transfer of any shares of Series A Preferred Stock in the Series A Preferred Stock Register, upon surrender of the certificates (if applicable) evidencing such shares to be transferred, duly endorsed by the Holder thereof, to the Corporation at its address specified herein. Upon any such registration or transfer, a new certificate evidencing the shares of Series A Preferred Stock so transferred shall be issued to the transferee and a new certificate evidencing the remaining portion of the shares not so transferred, if any, shall be issued to the transferring Holder, in each case, within three Business Days. The provisions of this Certificate of Designation are intended to be for the benefit of all Holders from time to time and shall be enforceable by any such Holder.

Section 3. Dividends. Holders shall be entitled to receive, and the Corporation shall pay, dividends on shares of the Series A Preferred Stock (on an as-if-converted-to-Common-Stock basis, without regard to the Beneficial Ownership Limitation) equal to and in the same form, and in the same manner, as dividends (other than dividends on shares of the Common Stock payable in the form of Common Stock) actually paid on shares of the Common Stock when, as and if such dividends (other than dividends payable in the form of Common Stock) are paid on shares of the Common Stock. Other than as set forth in the previous sentence, no other dividends shall be paid on shares of Series A Preferred Stock, and the Corporation shall pay no dividends (other than dividends payable in the form of Common Stock) on shares of the Common Stock unless it simultaneously complies with the previous sentence.

Section 4. Voting Rights. Except as otherwise provided herein or as otherwise required by the MBCA, the Series A Preferred Stock shall have no voting rights. However, as long as any shares of Series A Preferred Stock are outstanding, the Corporation shall not, without the affirmative vote of the Holders of a majority of the then outstanding shares of the Series A Preferred Stock, (i) alter or change adversely the powers, preferences or rights given to the Series A Preferred Stock or alter or amend this Certificate of Designation, amend or repeal any provision of, or add any provision to, the Articles of Incorporation or bylaws of the Corporation, or file any articles of amendment, certificate of designations, preferences, limitations and relative rights of any series of preferred stock, if such action would adversely alter or change the preferences, rights, privileges or powers of, or restrictions provided for the benefit of the Series A Preferred Stock in a manner materially different than the effect on the Common Stock, regardless of whether any of the foregoing actions shall be by means of amendment to the Articles of Incorporation or by merger, consolidation or otherwise, (ii) issue further shares of Series A Preferred Stock or increase or decrease (other than by conversion) the number of authorized shares of Series A Preferred Stock, or (iii) enter into any agreement with respect to any of the foregoing.

Section 5. Rank; Liquidation.

(a) The Series A Preferred Stock shall rank: (i) senior to all of the Common Stock; (ii) senior to any class or series of capital stock of the Corporation hereafter created specifically ranking by its terms junior to any Series A Preferred Stock ("**Junior Securities**"); (iii) on parity with all shares of the Corporation's Series A Convertible Preferred Stock; (iv) on parity with any class or series of capital stock of the Corporation hereafter created specifically ranking by its terms on parity with the Series A Preferred Stock (together with the Corporation's Series

A Convertible Preferred Stock, the "**Parity Securities**"); (v) junior to Series B-1 Non-Voting Convertible Preferred Stock (the "**Series B-1 Preferred Stock**"); (vi) junior to Series B-2 Voting Convertible Preferred Stock (the "**Series B-2 Preferred Stock**" and, together with the Series B-1 Preferred Stock, the "**Series B Preferred Stock**")); and (vii) junior to any class or series of capital stock of the Corporation hereafter created specifically ranking by its terms senior to any Series A Preferred Stock ("**Senior Securities**"), in each case, as to distributions of assets upon liquidation, dissolution or winding up of the Corporation, whether voluntarily or involuntarily (all such distributions being referred to collectively as "**Distributions**").

(b) Subject to the prior and superior rights of the holders of Series B Preferred Stock and any other Senior Securities of the Corporation, upon liquidation, dissolution or winding up of the Corporation, whether voluntary or involuntary, each holder of shares of Series A Preferred Stock shall be entitled to: (i) receive, in preference to any distributions of any of the assets or surplus funds of the Corporation to the holders of the Common Stock and Junior Securities and pari passu with any distribution to the holders of Parity Securities, any dividends declared but unpaid on such shares, before any payments shall be made or any assets distributed to holders of any class of Common Stock or Junior Securities, and (ii) participate pari passu with the holders of Common Stock (on an as-converted basis, without regard to the Beneficial Ownership Limitation) in the remaining distribution of the net assets of the Corporation available for distribution. If, upon any such liquidation, dissolution or winding up of the Corporation, the assets of the Corporation shall be insufficient to pay the holders of shares of the Series A Preferred Stock the amount required under clause (i) of the preceding sentence, then all remaining assets of the Corporation shall be distributed ratably to holders of the shares of the Series A Preferred Stock and Parity Securities.

Section 6. Conversion.

(a) Conversions at Option of Holder. Each share of Series A Preferred Stock shall be convertible, at any time and from time to time from and after the Issuance Date, at the option of the Holder thereof, into a number of shares of Common Stock equal to the Conversion Ratio. Holders shall effect conversions by providing the Corporation with the form of conversion notice attached hereto as **Annex A** (a "**Notice of Conversion**"), duly completed and executed. Other than a conversion following a Fundamental Transaction or following a notice provided for under Section 7(d)(ii) hereof, the Notice of Conversion must specify at least a number of shares of Series A Preferred Stock to be converted equal to the lesser of (x) 100 shares (such number subject to appropriate adjustment following the occurrence of an event specified in Section 7(a) hereof) and (y) the number of shares of Series A Preferred Stock then held by the Holder. Provided the Corporation's transfer agent is participating in the Depository Trust Company ("**DTC**") Fast Automated Securities Transfer program, the Notice of Conversion may specify, at the Holder's election, whether the applicable Conversion Shares shall be credited to the account of the Holder's prime broker with DTC through its Deposit Withdrawal Agent Commission system (a "**DWAC Delivery**"). The "**Conversion Date**", or the date on which a conversion shall be deemed effective, shall be defined as the Trading Day that the Notice of Conversion, completed and executed, is sent by facsimile to, and received during regular business hours by, the Corporation; provided that the original certificate(s) (if any) representing such shares of Series A Preferred Stock being converted, duly endorsed, and the accompanying Notice of Conversion, are received by the Corporation within two (2) Trading Days thereafter. In all other cases, the Conversion Date shall be defined as the Trading Day on which the original shares of Series A Preferred Stock being converted, duly endorsed, and the accompanying Notice of Conversion, are received by the Corporation. The calculations set forth in the Notice of Conversion shall control in the absence of manifest or mathematical error.

(b) Conversion Ratio. The "**Conversion Ratio**" for each share of Series A Preferred Stock shall be equal to the Stated Value divided by the Conversion Price.

(c) Beneficial Ownership Limitation. Notwithstanding anything herein to the contrary, the Corporation shall not effect any conversion of the Series A Preferred Stock, and a Holder shall not have the right to convert any portion of the Series A Preferred Stock, to the extent that, after giving effect to an attempted conversion set forth on an applicable Notice of Conversion, such Holder (together with such Holder's Affiliates, and any other Person whose beneficial ownership of Common Stock would be aggregated with the Holder's for purposes of Section 13(d) or Section 16 of the Exchange Act and the applicable regulations of the Commission, including any "group" of which the Holder is a member (the foregoing, "**Attribution Parties**")) would beneficially own a number of shares

of Common Stock in excess of the Beneficial Ownership Limitation (as defined below). For purposes of the foregoing sentence, the number of shares of Common Stock beneficially owned by such Holder and its Attribution Parties shall include the number of shares of Common Stock issuable upon conversion of the Series A Preferred Stock subject to the Notice of Conversion with respect to which such determination is being made, but shall exclude the number of shares of Common Stock which are issuable upon (A) conversion of the remaining, unconverted Series A Preferred Stock beneficially owned by such Holder or any of its Attribution Parties, and (B) exercise or conversion of the unexercised or unconverted portion of any other securities of the Corporation (including any warrants) beneficially owned by such Holder or any of its Attribution Parties that are subject to a limitation on conversion or exercise similar to the limitation contained herein. For purposes of this Section 6(c), beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act and the applicable regulations of the Commission. In addition, for purposes hereof, "group" has the meaning set forth in Section 13(d) of the Exchange Act and the applicable regulations of the Commission. For purposes of this Section 6(c), in determining the number of outstanding shares of Common Stock, a Holder may rely on the number of outstanding shares of Common Stock as stated in the most recent of the following: (A) the Corporation's most recent periodic or annual filing with the Commission, as the case may be, (B) a more recent public announcement by the Corporation that is filed with the Commission, or (C) a more recent notice by the Corporation or the Corporation's transfer agent to the Holder setting forth the number of shares of Common Stock then outstanding. Upon the written request of a Holder (which may be by email), the Corporation shall, within three (3) Trading Days thereof, confirm in writing to such Holder (which may be via email) the number of shares of Common Stock then outstanding. In any case, the number of outstanding shares of Common Stock shall be determined after giving effect to any actual conversion or exercise of securities of the Corporation, including shares of Series A Preferred Stock, by such Holder or its Attribution Parties since the date as of which such number of outstanding shares of Common Stock was last publicly reported or confirmed to the Holder. The "**Beneficial Ownership Limitation**" shall initially be 9.99% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock pursuant to such Notice of Conversion (to the extent permitted pursuant to this Section 6(c)). The Corporation shall be entitled to rely on representations made to it by the Holder in any Notice of Conversion regarding its Beneficial Ownership Limitation. Notwithstanding the foregoing, by written notice to the Corporation, which will not be effective until the sixty-first (61st) day after such notice is delivered to the Corporation, the Holder may reset the Beneficial Ownership Limitation percentage to a higher or lower percentage, not to exceed 9.99% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock pursuant to such Notice of Conversion; *provided*, *however*, that the Holder may reset the Beneficial Ownership Limitation to a higher percentage not to exceed 14.99% if the Corporation has delivered to the Holder a Redemption Notice (defined below), unless the Holder has irrevocably waived such right under this proviso through a written notice delivered to the Corporation, whereupon the Holder shall not have the right to increase the Beneficial Ownership Limitation above 9.99% unless and until a subsequent Redemption Notice is delivered (at which time, the Holder shall again have the ability to elect to increase the Beneficial Ownership Limitation or irrevocably waive such right). Upon such a change by a Holder of the Beneficial Ownership Limitation, the Beneficial Ownership Limitation may not be further amended by such Holder without first providing the minimum notice required by this Section 6(c). Notwithstanding the foregoing, at any time following notice of a Fundamental Transaction, the Holder may waive and/or change the Beneficial Ownership Limitation effective immediately upon written notice to the Corporation and may reinstitute a Beneficial Ownership Limitation at any time thereafter effective immediately upon written notice to the Corporation.

(d) Mechanics of Conversion

(i) Delivery of Certificate or Electronic Issuance Upon Conversion. Not later than three (3) Trading Days after the applicable Conversion Date, or if the Holder requests the issuance of physical certificate(s), two (2) Trading Days after receipt by the Corporation of the original certificate(s) representing such shares of Series A Preferred Stock being converted, duly endorsed, and the accompanying Notice of Conversion (the "**Share Delivery Date**"), the Corporation shall (a) deliver, or cause to be delivered, to the converting Holder a physical certificate or certificates representing the number of Conversion Shares being acquired upon the conversion of shares of Series A Preferred Stock, or (b) in the case of a DWAC Delivery (if so requested by the Holder), electronically transfer such Conversion Shares by crediting the account of the Holder's prime broker with DTC through its DWAC system. If in the case of any Notice of Conversion such certificate or certificates

are not delivered to or as directed by or, in the case of a DWAC Delivery, such shares are not electronically delivered to or as directed by, the applicable Holder by the Share Delivery Date, the applicable Holder shall be entitled to elect to rescind such Conversion Notice by written notice to the Corporation at any time on or before its receipt of such certificate or certificates for Conversion Shares or electronic receipt of such shares, as applicable, in which event the Corporation shall promptly return to such Holder any original Series A Preferred Stock certificate delivered to the Corporation and such Holder shall promptly return to the Corporation any Common Stock certificates or otherwise direct the return of any shares of Common Stock delivered to the Holder through the DWAC system, representing the shares of Series A Preferred Stock unsuccessfully tendered for conversion to the Corporation.

(ii) Obligation Absolute. Subject to Section 6(c) hereof and subject to Holder's right to rescind a Conversion Notice pursuant to Section 6(d)(i) above, the Corporation's obligation to issue and deliver the Conversion Shares upon conversion of Series A Preferred Stock in accordance with the terms hereof are absolute and unconditional, irrespective of any action or inaction by a Holder to enforce the same, any waiver or consent with respect to any provision hereof, the recovery of any judgment against any Person or any action to enforce the same, or any setoff, counterclaim, recoupment, limitation or termination, or any breach or alleged breach by such Holder or any other Person of any obligation to the Corporation or any violation or alleged violation of law by such Holder or any other Person, and irrespective of any other circumstance which might otherwise limit such obligation of the Corporation to such Holder in connection with the issuance of such Conversion Shares. Subject to Section 6(c) hereof and subject to Holder's right to rescind a Conversion Notice pursuant to Section 6(d)(i) above, in the event a Holder shall elect to convert any or all of its Series A Preferred Stock, the Corporation may not refuse conversion based on any claim that such Holder or anyone associated or affiliated with such Holder has been engaged in any violation of law, agreement or for any other reason, unless an injunction from a court, on notice to Holder, restraining and/or enjoining conversion of all or part of the Series A Preferred Stock of such Holder shall have been sought and obtained by the Corporation, and the Corporation posts a surety bond for the benefit of such Holder in the amount of 150% of the value of the Conversion Shares into which would be converted the Series A Preferred Stock which is subject to such injunction, which bond shall remain in effect until the completion of arbitration/litigation of the underlying dispute and the proceeds of which shall be payable to such Holder to the extent it obtains judgment. In the absence of such injunction, the Corporation shall, subject to Section 6(c) hereof and subject to Holder's right to rescind a Conversion Notice pursuant to Section 6(d)(i) above, issue Conversion Shares upon a properly noticed conversion. If the Corporation fails to deliver to a Holder such certificate or certificates, or electronically deliver (or cause its transfer agent to electronically deliver) such shares in the case of a DWAC Delivery, pursuant to Section 6(d)(i) on or prior to the fifth (5th) Trading Day after the Share Delivery Date applicable to such conversion (other than a failure caused by incorrect or incomplete information provided by Holder to the Corporation), then, unless the Holder has rescinded the applicable Conversion Notice pursuant to Section 6(d)(i) above, the Corporation shall pay (as liquidated damages and not as a penalty) to such Holder an amount payable, at the Corporation's option, either (a) in cash or (b) to the extent that it would not cause the Holder or its Attribution Parties to exceed the Beneficial Ownership Limitation, in shares of Common Stock that are valued for these purposes at the Closing Sale Price on the date of such calculation, in each case equal to the product of (x) the number of Conversion Shares required to have been issued by the Corporation on such Share Delivery Date, (y) an amount equal to the Daily Failure Amount and (z) the number of Trading Days actually lapsed after such fifth (5th) Trading Day after the Share Delivery Date during which such certificates have not been delivered, or, in the case of a DWAC Delivery, such shares have not been electronically delivered; provided, however, the Holder shall only receive up to such amount of shares of Common Stock such that Holder and its Attribution Parties and any other persons or entities whose beneficial ownership of Common Stock would be aggregated with the Holder's for purposes of Section 13(d) of the Exchange Act (including shares held by any "group" of which the Holder is a member, but excluding shares beneficially owned by virtue of the ownership of securities or rights to acquire securities that have limitations on the right to convert, exercise or purchase similar to the limitation set forth herein) shall not collectively beneficially own greater than the Beneficial Ownership Limitation. Nothing herein shall limit a Holder's right to pursue actual damages for the Corporation's failure to deliver Conversion Shares within the period specified herein and such Holder shall have the right to pursue all remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief; provided that Holder shall not receive duplicate damages for the Corporation's failure to deliver Conversion Shares within the period

specified herein. The exercise of any such rights shall not prohibit a Holder from seeking to enforce damages pursuant to any other Section hereof or under applicable law.

(iii) Compensation for Buy-In on Failure to Timely Deliver Certificates Upon Conversion. If the Corporation fails to deliver to a Holder the applicable certificate or certificates or to effect a DWAC Delivery, as applicable, by the Share Delivery Date pursuant to Section 6(d)(i) (other than a failure caused by incorrect or incomplete information provided by Holder to the Corporation), and if after such Share Delivery Date such Holder is required by its brokerage firm to purchase (in an open market transaction or otherwise), or the Holder's brokerage firm otherwise purchases, shares of Common Stock to deliver in satisfaction of a sale by such Holder of the Conversion Shares which such Holder was entitled to receive upon the conversion relating to such Share Delivery Date (a "**Buy-In**"), then the Corporation shall (A) pay in cash to such Holder (in addition to any other remedies available to or elected by such Holder) the amount by which (x) such Holder's total purchase price (including any brokerage commissions) for the shares of Common Stock so purchased exceeds (y) the product of (1) the aggregate number of shares of Common Stock that such Holder was entitled to receive from the conversion at issue multiplied by (2) the actual sale price at which the sell order giving rise to such purchase obligation was executed (including any brokerage commissions) and (B) at the option of such Holder, either reissue (if surrendered) the shares of Series A Preferred Stock equal to the number of shares of Series A Preferred Stock submitted for conversion or deliver to such Holder the number of shares of Common Stock that would have been issued if the Corporation had timely complied with its delivery requirements under Section 6(d)(i). For example, if a Holder purchases shares of Common Stock having a total purchase price of $11,000 to cover a Buy-In with respect to an attempted conversion of shares of Series A Preferred Stock with respect to which the actual sale price (including any brokerage commissions) giving rise to such purchase obligation was a total of $10,000 under clause (A) of the immediately preceding sentence, the Corporation shall be required to pay such Holder $1,000. The Holder shall provide the Corporation written notice, within three (3) Trading Days after the occurrence of a Buy-In, indicating the amounts payable to such Holder in respect of such Buy-In together with applicable confirmations and other evidence reasonably requested by the Corporation. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Corporation's failure to timely deliver certificates representing shares of Common Stock upon conversion of the shares of Series A Preferred Stock as required pursuant to the terms hereof; provided, however, that the Holder shall not be entitled to both (i) require the reissuance of the shares of Series A Preferred Stock submitted for conversion for which such conversion was not timely honored and (ii) receive the number of shares of Common Stock that would have been issued if the Corporation had timely complied with its delivery requirements under Section 6(d)(i).

(iv) Reservation of Shares Issuable Upon Conversion. The Corporation covenants that it will at all times reserve and keep available out of its authorized and unissued shares of Common Stock for the sole purpose of issuance upon conversion of the Series A Preferred Stock, free from preemptive rights or any other actual contingent purchase rights of Persons other than the Holders of the Series A Preferred Stock, not less than such aggregate number of shares of the Common Stock as shall be issuable (taking into account the adjustments of Section 7) upon the conversion of all outstanding shares of Series A Preferred Stock. The Corporation covenants that all shares of Common Stock that shall be so issuable shall, upon issue, be duly authorized, validly issued, fully paid and non-assessable.

(v) Fractional Shares. No fractional shares or scrip representing fractional shares of Common Stock shall be issued upon the conversion of the Series A Preferred Stock. As to any fraction of a share which a Holder would otherwise be entitled to receive upon such conversion, the Corporation shall pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Conversion Price.

(vi) Transfer Taxes. The issuance of certificates for shares of the Common Stock upon conversion of the Series A Preferred Stock shall be made without charge to any Holder for any documentary stamp or similar taxes that may be payable in respect of the issue or delivery of such certificates, provided that the Corporation shall not be required to pay any tax that may be payable in respect of any transfer involved in the issuance and delivery of any such certificate upon conversion in a name other than that of the registered Holder(s) of such shares of Series A Preferred Stock and the Corporation shall not be required to issue or deliver such certificates

unless or until the Person or Persons requesting the issuance thereof shall have paid to the Corporation the amount of such tax or shall have established to the satisfaction of the Corporation that such tax has been paid.

(e) Status as Shareholder. Upon each Conversion Date: (i) the shares of Series A Preferred Stock being converted shall be deemed converted into shares of Common Stock; and (ii) the Holder's rights as a holder of such converted shares of Series A Preferred Stock shall cease and terminate, excepting only the right to receive certificates for such shares of Common Stock and to any remedies provided herein or otherwise available at law or in equity to such Holder because of a failure by the Corporation to comply with the terms of this Certificate of Designation. In all cases, the holder shall retain all of its rights and remedies for the Corporation's failure to convert Series A Preferred Stock.

Section 7. Certain Adjustments.

(a) Stock Dividends and Stock Splits. If the Corporation, at any time while this Series A Preferred Stock is outstanding: (A) pays a stock dividend or otherwise makes a distribution or distributions payable in shares of Common Stock (which, for avoidance of doubt, shall not include any shares of Common Stock issued by the Corporation upon conversion of this Series A Preferred Stock) with respect to the then outstanding shares of Common Stock; (B) subdivides outstanding shares of Common Stock into a larger number of shares; or (C) combines (including by way of a reverse stock split) outstanding shares of Common Stock into a smaller number of shares, then the Conversion Price shall be multiplied by a fraction of which the numerator shall be the number of shares of Common Stock (excluding any treasury shares of the Corporation) outstanding immediately before such event and of which the denominator shall be the number of shares of Common Stock outstanding immediately after such event (excluding any treasury shares of the Corporation). Any adjustment made pursuant to this Section 7(a) shall become effective immediately after the record date for the determination of shareholders entitled to receive such dividend or distribution and shall become effective immediately after the effective date in the case of a subdivision or combination.

(b) Fundamental Transaction. If, at any time while this Series A Preferred Stock is outstanding, (A) the Corporation effects any merger or consolidation of the Corporation with or into another Person or any stock sale to, or other business combination (including, without limitation, a reorganization, recapitalization, spin-off, share exchange or scheme of arrangement) with or into another Person (other than such a transaction in which the Corporation is the surviving or continuing entity and its Common Stock is not exchanged for or converted into other securities, cash or property), (B) the Corporation effects any sale of all or substantially all of its assets in one transaction or a series of related transactions, (C) any tender offer or exchange offer (whether by the Corporation or another Person) is completed pursuant to which more than 50% of the Common Stock not held by the Corporation or such Person is exchanged for or converted into other securities, cash or property, or (D) the Corporation effects any reclassification of the Common Stock or any compulsory share exchange pursuant (other than as a result of a dividend, subdivision or combination covered by Section 7(a) above) to which the Common Stock is effectively converted into or exchanged for other securities, cash or property (in any such case, a "**Fundamental Transaction**"), then, upon any subsequent conversion of this Series A Preferred Stock the Holders shall have the right to receive, in lieu of the right to receive Conversion Shares, for each Conversion Share that would have been issuable upon such conversion immediately prior to the occurrence of such Fundamental Transaction, the same kind and amount of securities, cash or property as it would have been entitled to receive upon the occurrence of such Fundamental Transaction if it had been, immediately prior to such Fundamental Transaction, the holder of one share of Common Stock (the "**Alternate Consideration**"). For purposes of any such subsequent conversion, the determination of the Conversion Ratio shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one share of Common Stock in such Fundamental Transaction, and the Corporation shall adjust the Conversion Ratio in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. If holders of Common Stock are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holders shall be given the same choice as to the Alternate Consideration it receives upon any conversion of this Series A Preferred Stock following such Fundamental Transaction. To the extent necessary to effectuate the foregoing provisions, any successor to the Corporation or surviving entity in such Fundamental Transaction shall file a new Certificate of Designation with the same terms and conditions and issue to the Holders new preferred stock consistent with the

foregoing provisions and evidencing the Holders' right to convert such preferred stock into Alternate Consideration. The terms of any agreement to which the Corporation is a party and pursuant to which a Fundamental Transaction is effected shall include terms requiring any such successor or surviving entity to comply with the provisions of this Section 7(b) and insuring that this Series A Preferred Stock (or any such replacement security) will be similarly adjusted upon any subsequent transaction analogous to a Fundamental Transaction. The Corporation shall cause to be delivered to each Holder, at its last address as it shall appear upon the stock books of the Corporation, written notice of any Fundamental Transaction at least 20 calendar days prior to the date on which such Fundamental Transaction is expected to become effective or close.

(c) Calculations. All calculations under this Section 7 shall be made to the nearest cent or the nearest 1/100th of a share, as the case may be. For purposes of this Section 7, the number of shares of Common Stock deemed to be issued and outstanding as of a given date shall be the sum of the number of shares of Common Stock (excluding any treasury shares of the Corporation) issued and outstanding.

(d) Notice to the Holders.

(i) Adjustment to Conversion Price. Whenever the Conversion Price is adjusted pursuant to any provision of this Section 7, the Corporation shall promptly deliver to each Holder a notice setting forth the Conversion Ratio after such adjustment and setting forth a brief statement of the facts requiring such adjustment.

(ii) Other Notices. If (A) the Corporation shall declare a dividend (or any other distribution in whatever form) on the Common Stock, (B) the Corporation shall declare a special nonrecurring cash dividend on or a redemption of the Common Stock, (C) the Corporation shall authorize the granting to all holders of the Common Stock of rights or warrants to subscribe for or purchase any shares of capital stock of any class or of any rights, (D) the approval of any shareholders of the Corporation shall be required in connection with any reclassification of the Common Stock, any consolidation or merger to which the Corporation is a party, any sale or transfer of all or substantially all of the assets of the Corporation, or any compulsory share exchange whereby the Common Stock is converted into other securities, cash or property, or (E) the Corporation shall authorize the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Corporation, then, in each case, the Corporation shall cause to be filed at each office or agency maintained for the purpose of conversion of this Series A Preferred Stock, and shall cause to be delivered to each Holder at its last address as it shall appear upon the stock books of the Corporation, at least 20 calendar days prior to the applicable record or effective date hereinafter specified, a notice stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution, redemption, rights or warrants, or if a record is not to be taken, the date as of which the holders of the Common Stock of record to be entitled to such dividend, distributions, redemption, rights or warrants are to be determined or (y) the date on which such reclassification, consolidation, merger, sale, transfer or share exchange is expected to become effective or close, and the date as of which it is expected that holders of the Common Stock of record shall be entitled to exchange their shares of the Common Stock for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or share exchange, provided that the failure to deliver such notice or any defect therein or in the delivery thereof shall not affect the validity of the corporate action required to be specified in such notice.

Section 8. Redemption.

(a) General. On or after June 23, 2018, unless prohibited by the MBCA laws governing distributions to shareholders and subject to Section 10(b) of the Securities Exchange Act of 1934, as amended (and Rule 10b-5 promulgated thereunder), the Corporation may elect, in its sole discretion, to redeem all or a portion of the then outstanding shares of Series A Preferred Stock at a price equal to the product of (A) the Conversion Ratio and (B) the Market Price (determined in the manner set forth below) of a single share of Common Stock as of the date of the Corporation's Redemption Notice (as defined below) (the "**Redemption Price**"), so long as the Redemption Price would be greater than the Conversion Price. For purposes of this Section 8, the "**Market Price**" of a single share of Common Stock shall be determined as follows: if the Common Stock is listed on a principal securities exchange or another nationally recognized trading system, the Market Price per share of Common Stock shall be deemed to be the greater of (A) the 20 consecutive Trading Day average closing price per share of the Common Stock ending on the Trading Day immediately prior to the date of determination and (B) the closing price of the Common Stock on

the Trading Day immediately prior to the date of determination; and if the Common Stock is not listed on a principal securities exchange or another nationally recognized trading system, the Market Price per share of Common Stock shall be deemed to be the amount most recently determined by the Board to represent the fair market value per share of the Common Stock (including without limitation a determination for purposes of granting Common Stock options or issuing Common Stock under any plan, agreement or arrangement with employees of the Corporation). The date of the Corporation's payment of the Redemption Price shall be referred to as a "**Redemption Date**."

(b) Redemption Notice. The Corporation shall send written notice of its intention to redeem the Series A Preferred Stock (the "**Redemption Notice**") to each holder of record of Series A Preferred Stock not less than 90 days prior to the Redemption Date (or such shorter time as may be mutually agreed upon in writing by the Corporation and the Holder). Each Redemption Notice shall state: (i) the number of shares of Series A 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; and (iii) the date upon which the holder's right to convert such shares terminates (as determined in accordance with Section 8(d) below); and (iv) for holders of shares in certificated form, that the holder is to surrender to the Corporation, in the manner and at the place designated, his, her or its certificate or certificates representing the shares of Series A Preferred Stock to be redeemed.

(c) Surrender of Certificates; Payment. On or before the Redemption Date, each holder of shares of Series A 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 6, shall, if a holder of shares in certificated form, surrender the certificate or certificates representing such shares (or, if such registered holder alleges that such certificate has been lost, stolen or destroyed, a lost certificate affidavit and agreement reasonably acceptable to the Corporation to indemnify the Corporation against any claim that may be made against the Corporation on account of the alleged loss, theft or destruction of such certificate) to the Corporation, in the manner and at the place designated in the Redemption Notice, and thereupon the Redemption Price for such shares shall be payable to the order of the person whose name appears on such certificate or certificates as the owner thereof. In the event less than all of the shares of Series A Preferred Stock represented by a certificate are redeemed, a new certificate, instrument, or book entry representing the unredeemed shares of Series A 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 Redemption Date the Redemption Price payable upon redemption of the shares of Series A Preferred Stock to be redeemed on such Redemption Date is paid or tendered for payment or deposited with an independent payment agent so as to be available therefor in a timely manner, then notwithstanding that any certificates evidencing any of the shares of Series A Preferred Stock so called for redemption shall not have been surrendered, dividends with respect to such shares of Series A Preferred Stock shall cease to accrue after such Redemption Date and all rights with respect to such shares, including the conversion rights set forth in Section 6, shall forthwith after the Redemption Date terminate, except only the right of the holders to receive the Redemption Price without interest upon surrender of any such certificate or certificates therefor.

Section 9. Miscellaneous.

(a) Notices. Any and all notices or other communications or deliveries to be provided by the Holders hereunder including, without limitation, any Notice of Conversion, shall be in writing and delivered personally, by facsimile, via email, or sent by a nationally recognized overnight courier service, addressed to the Corporation, at 64 Sidney Street, Cambridge, MA, 02139, Attn: Gerard Michel, or such other facsimile number, email address, or mailing address as the Corporation may specify for such purposes by notice to the Holders delivered in accordance with this Section. Any and all notices or other communications or deliveries to be provided by the Corporation hereunder shall be in writing and delivered personally, by facsimile, email, or sent by a nationally recognized overnight courier service addressed to each Holder at the facsimile number, email address or mailing address of such Holder appearing on the books of the Corporation, or if no such facsimile number, email address, or mailing address appears on the books of the Corporation, at the principal place of business of such Holder. Any notice or other communication or deliveries hereunder shall be deemed given and effective on the earliest of: (i) the date of transmission, if such notice or communication is delivered via facsimile or email prior to 5:30 p.m. (New York City time) on any date, (ii) the date immediately following the date of transmission, if such notice or communication is delivered via facsimile or

email between 5:30 p.m. and 11:59 p.m. (New York City time) on any date, (iii) the second Business Day following the date of mailing, if sent by nationally recognized overnight courier service, or (iv) upon actual receipt by the party to whom such notice is required to be given.

(b) Lost or Mutilated Series A Preferred Stock Certificate. If a Holder's Series A Preferred Stock certificate shall be mutilated, lost, stolen or destroyed, the Corporation shall execute and deliver, in exchange and substitution for and upon cancellation of a mutilated certificate, or in lieu of or in substitution for a lost, stolen or destroyed certificate, a new certificate for the shares of Series A Preferred Stock so mutilated, lost, stolen or destroyed, but only upon receipt of evidence of such loss, theft or destruction of such certificate, and of the ownership thereof, reasonably satisfactory to the Corporation and, in each case, customary and reasonable indemnity, if requested. Applicants for a new certificate under such circumstances shall also comply with such other reasonable regulations and procedures and pay such other reasonable third-party costs as the Corporation may prescribe.

(c) Waiver. Any waiver by the Corporation or a Holder of a breach of any provision of this Certificate of Designation shall not operate as or be construed to be a waiver of any other breach of such provision or of any breach of any other provision of this Certificate of Designation or a waiver by any other Holders. The failure of the Corporation or a Holder to insist upon strict adherence to any term of this Certificate of Designation on one or more occasions shall not be considered a waiver or deprive that party (or any other Holder) of the right thereafter to insist upon strict adherence to that term or any other term of this Certificate of Designation. Any waiver by the Corporation or a Holder must be in writing. Notwithstanding any provision in this Certificate of Designation to the contrary, any provision contained herein and any right of the Holders of Series A Preferred Stock granted hereunder may be waived as to all shares of Series A Preferred Stock (and the Holders thereof) upon the written consent of the Holders of not less than a majority of the shares of Series A Preferred Stock then outstanding, unless a higher percentage is required by the MBCA, in which case the written consent of the Holders of not less than such higher percentage shall be required.

(d) Severability. If any provision of this Certificate of Designation is invalid, illegal or unenforceable, the balance of this Certificate of Designation shall remain in effect, and if any provision is inapplicable to any Person or circumstance, it shall nevertheless remain applicable to all other Persons and circumstances. If it shall be found that any interest or other amount deemed interest due hereunder violates the applicable law governing usury, the applicable rate of interest due hereunder shall automatically be lowered to equal the maximum rate of interest permitted under applicable law.

(e) Next Business Day. Whenever any payment or other obligation hereunder shall be due on a day other than a Business Day, such payment shall be made on the next succeeding Business Day.

(f) Headings. The headings contained herein are for convenience only, do not constitute a part of this Certificate of Designation and shall not be deemed to limit or affect any of the provisions hereof.

(g) Status of Converted Series A Preferred Stock. If any shares of Series A Preferred Stock shall be converted or redeemed by the Corporation, such shares shall resume the status of authorized but unissued shares of preferred stock and shall no longer be designated as Series A Preferred Stock.

****

IN WITNESS WHEREOF, the undersigned has executed this Certificate of Designation this 21st day of December 2015.

/s/ Dominick C. Colangelo

Dominick C. Colangelo, Chief Executive Officer

ANNEX A

NOTICE OF CONVERSION

(TO BE EXECUTED BY THE REGISTERED HOLDER
IN ORDER TO CONVERT SHARES OF SERIES A PREFERRED STOCK)

The undersigned Holder hereby irrevocably elects to convert the number of shares of Series A Preferred Stock indicated below, represented by stock certificate No(s). . (the "**Preferred Stock Certificates**"), into shares of common stock, no par value (the "**Common Stock**"), of Vericel Corporation, a Michigan corporation (the "**Corporation**"), as of the date written below. If securities are to be issued in the name of a person other than the undersigned, the undersigned will pay all transfer taxes payable with respect thereto. Capitalized terms utilized but not defined herein shall have the meaning ascribed to such terms in that certain Certificate of Designation of Preferences, Rights and Limitations of Series A Convertible Preferred Stock (the "**Certificate of Designation**") filed by the Corporation with the Michigan Department of Licensing and Regulatory Affairs on December ___, 2015.

As of the date hereof, the number of shares of Common Stock beneficially owned by the undersigned Holder (together with such Holder's Affiliates, and any other Person whose beneficial ownership of Common Stock would be aggregated with the Holder's for purposes of Section 13(d) or Section 16 of the Exchange Act and the applicable regulations of the Commission, including any "group" of which the Holder is a member (the foregoing, "**Attribution Parties**")), including the number of shares of Common Stock issuable upon conversion of the Series A Preferred Stock subject to this Notice of Conversion, but excluding the number of shares of Common Stock which are issuable upon (A) conversion of the remaining, unconverted Series A Preferred Stock beneficially owned by such Holder or any of its Attribution Parties, and (B) exercise or conversion of the unexercised or unconverted portion of any other securities of the Corporation (including any warrants) beneficially owned by such Holder or any of its Attribution Parties that are subject to a limitation on conversion or exercise similar to the limitation contained in Section 6(c) of the Certificate of Designation, is ___%. For purposes hereof, beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act and the applicable regulations of the Commission. In addition, for purposes hereof, "group" has the meaning set forth in Section 13(d) of the Exchange Act and the applicable regulations of the Commission.

Conversion calculations:

Date to Effect Conversion: _____

Number of shares of Series A Preferred Stock owned prior to Conversion: _____

Number of shares of Series A Preferred Stock to be Converted: _____

Number of shares of Common Stock to be Issued: _____

Address for delivery of physical certificates: _____

or

for DWAC Delivery: _____

DWAC Instructions: _____

Broker no: _____

Account no: _____

HOLDER

By: _____

Name:_____

Title:_____

Date:_____

Exhibit 10.46

TRANSITION SERVICES AGREEMENT

by and among

GENZYME CORPORATION

and

AASTROM BIOSCIENCES, INC.

Dated as of May 30, 2014

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TRANSITION SERVICES AGREEMENT

This Transition Services Agreement is dated as of May 30, 2014 (the "Execution Date"), by and between Aastrom Biosciences, Inc., a Michigan corporation ("Service Recipient"), and Genzyme Corporation, a Massachusetts corporation ("Service Provider"). Service Recipient and Service Provider are referred to in this Agreement each as a "Party" and collectively as the "Parties."

RECITALS

WHEREAS, Service Recipient and Sanofi, a French Societe anonyme ("Sanofi") have entered into an Asset Purchase Agreement dated as of April 19, 2014 (the "Asset Purchase Agreement") pursuant to which Service Recipient acquired the Transferred Assets from Sanofi and its Retained Affiliates;

WHEREAS, in connection with the transactions contemplated by the Asset Purchase Agreement, the Parties contemplate that during the Term, Service Provider will provide certain transitional services to Service Recipient in accordance with the terms and conditions set forth herein.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties agree as follows:

ARTICLE 1
DEFINITIONS

For the purpose of this Agreement, the following capitalized terms have the following meanings. Capitalized terms which are used but not defined herein have the meanings ascribed to such terms in the Asset Purchase Agreement.

"Additional Services" is defined in Section 2.6.

"Agreement" means this Transition Services Agreement and includes all Transition Service Schedules, whether attached hereto or added subsequently pursuant to the terms of this Agreement.

"Asset Purchase Agreement" is defined in the recitals to this Agreement.

"Claim" is defined in Section 10.2.

"Cleared Service Recipient Personnel" is defined in Section 8.3.

"Data" is defined in Section 7.4.

"Dispute" is defined in Section 3.3.

"Effective Date" means the Closing Date.

"Execution Date" is defined in the introduction to this Agreement.

"Expenses" is defined in Section 5.2.

"Losses" is defined in Section 10.1.

"Party" and "Parties" are defined in the introduction to this Agreement.

"SDEA" is defined in Section 13.3.

"Services" means all services to be provided by Service Provider to Service Recipient as described on any Transition Service Schedule, including any Additional Services.

"Service Provider" is defined in the introduction to this Agreement.

"Service Provider Manager" is defined in Section 3.1.

"Service Provider Personnel" is defined in Section 8.2

"Service Provider Representative" is defined in Section 3.1.

"Service Recipient" is defined in the introduction to this Agreement.

"Service Recipient Manager" is defined in Section 3.1.

"Service Recipient Personnel" is defined in Section 8.2.

"Service Recipient Representative" is defined in Section 3.1.

"Service Term" is defined in Section 2.3.2.

"Term" is defined in Section 4.1.

"Transition Service Schedule" is defined in Section 2.1.

ARTICLE 2
SERVICES

2.1. Schedules and Precedence. This Agreement governs the provision of transitional Services described in the schedules attached to and made a part of this Agreement (each individual schedule, a "Transition Service Schedule"). Such Transition Service Schedules may be amended in writing from time to time by the Parties. If there is any inconsistency between the terms of any Transition Service Schedule and the terms of this Agreement, the terms of such Transition Service Schedule shall govern.

2.2. Performance of Services. Service Provider will perform the Services set forth in the Transition Service Schedules and all Additional Services.

2.3. Information. Each Transition Service Schedule sets forth, among other things:

2.3.1. a description of the Services to be provided;

2.3.2. the term during which each Service will be provided (the "Service Term");

2.3.3. the location(s) where Services are to be provided;

2.3.4. the Service Provider and Service Recipient Representative(s) for such Service;

2.3.5. the maximum percentage of the applicable Service Provider Representative's working time to be allocated to the Services, based upon a normal 40-hour work week; provided that such maximum will not limit Service Provider's obligation to allocate resources necessary for the performance of any Service in accordance with this Agreement;

2.3.6. the monthly fees due to Service Provider, if any, for each Service; and

2.3.7. any other terms applicable thereto on the Transition Service Schedule.

2.4. Service Levels. Service Provider will perform the Services in a manner consistent with the terms and conditions contained herein and in accordance with applicable Legal Requirements. In addition, in performing the Services, Service Provider will use a degree of care and diligence that is not materially less than the care and diligence exercised by Service Provider and its Affiliates when engaged in similar services or activities during the twelve (12) month period preceding the Execution Date with respect to the Business, and will use commercially reasonable efforts to deliver the Services in a manner consistent with Service Provider's and its Affiliates' past practices. Service Provider will use qualified Service Provider Representatives to perform the Services.

2.5. Additional Resources. Except as provided in a Transition Service Schedule for a specific Service, in providing the Services, Service Provider will not be obligated to:

2.5.1. hire any additional employees;

2.5.2. maintain the employment of any specific employee;

2.5.3. purchase, lease or license any additional equipment or software; or

2.5.4. pay any costs related to the transfer or conversion of Service Recipient's data to Service Recipient or any alternate supplier of Services.

2.6. Additional Services. During the Term, the Parties may identify additional services that Service Provider will provide to Service Recipient in accordance with the terms of this Agreement (the "Additional Services"). Upon mutual agreement of the Parties, the Parties will execute additional written Transition Service Schedules for such Additional Services. Service Provider will have no obligation to execute any additional Transition Service Schedules; provided, that with respect to any Additional Service that has historically been provided by Service Provider or its Affiliates to the Business, Service

Provider will not unreasonably withhold, condition or delay the execution of a Transition Service Schedule relating to such Additional Service to the extent generally consistent with this Agreement, including the Transition Service Schedules.

2.7. Change Order Process. Any change in the scope or duration of any Service described in or other amendment to a Transition Service Schedule must be in writing and signed by the Parties.

2.8. Third-Party Consents. If any consent or waiver from any Third Party is needed in connection with Service Provider's provision of the Services, Service Provider will be excused from performing such Service until such consent or waiver is obtained and will use commercially reasonable efforts to cooperate with Service Recipient to obtain such licenses or approvals, provided that any payments to Third Parties in connection with obtaining any such consent or waiver will be paid by Service Recipient.

ARTICLE 3
GOVERNANCE

3.1. Service Provider Manager and Service Provider Representatives. Service Provider will appoint one individual to have primary responsibility and oversight for the provision of all of the Services by Service Provider and to be Service Recipient's primary point of contact (the "Service Provider Manager"). The initial Service Provider Manager will be Geary MacQuiddy. In addition, Service Provider will identify on the applicable Transition Service Schedule one representative (the "Service Provider Representative") for each Service to have primary responsibility and oversight for the provision or coordination of such Service. Service Provider may appoint a new Service Provider Manager or a new Service Provider Representative for any Service by providing Service Recipient with written notice thereof.

3.2. Service Recipient Manager and Service Recipient Representatives. Service Recipient will appoint one individual to have primary responsibility and oversight for the receipt of all of the Services by Service Recipient and to be Service Provider's primary point of contact (the "Service Recipient Manager"). The initial Service Recipient Manager will be Ross Turbo. In addition, Service Recipient will identify on the applicable Transition Service Schedule one representative (the "Service Recipient Representative") for each Service to have primary responsibility and oversight for the provision or coordination of such Service. Service Recipient may appoint a new Service Recipient Manager or a new Service Recipient Representative for any Service by providing Service Provider with written notice thereof.

3.3. Dispute Resolution. Any dispute regarding a Party's performance under this Agreement (a "Dispute") will be initially referred to the Service Provider Manager and the Service Recipient Manager. The Service Provider Manager and the Service Recipient Manager will meet at a mutually acceptable time and place (or by teleconference) promptly after the Dispute has been referred to them, and thereafter as often as they reasonably deem necessary, to exchange relevant information and to attempt to resolve the Dispute. If the Service Provider Manager and the Service Recipient Manager are not

able to resolve the Dispute within thirty (30) days after the Dispute has been referred to them, then either Party may thereafter submit such Dispute to any court as permitted by Section 13.9.

ARTICLE 4
TERM AND TERMINATION

4.1. Term. This Agreement will commence on the Effective Date and remain in effect until the last day that any Service Term in any Transition Service Schedule remains in effect (the "Term"), unless earlier terminated under this ARTICLE 4. With respect to each Service, such Service will begin upon the applicable start date set forth in the Transition Services Schedule (or the Effective Date if no start date is identified) and will continue for the longest duration, or until the end date, for such Services set forth in the Transition Services Schedule, unless earlier terminated under this ARTICLE 4. This Agreement may be extended by the Parties in writing, either in whole or with respect to one or more of the Services.

4.2. Termination.

4.2.1. Service Recipient may terminate this Agreement, either with respect to all or with respect to any one or more of the Services (or a portion thereof) provided to Service Recipient hereunder, for any reason or for no reason, at any time upon at least thirty (30) days (or such shorter period to which Service Provider agrees in writing) prior written notice to Service Provider, unless the specific Transition Service Schedule provides otherwise.

4.2.2. Subject to the provisions of ARTICLE 12 below, either Party may terminate this Agreement in its entirety or with respect to affected Services if the other Party materially breaches a material provision with regard to those Services and does not cure such breach, or does not take reasonable steps required under the circumstances to cure such breach going forward, within thirty (30) days (or ten (10) days in the event of a payment breach) after receiving notice of the breach.

4.2.3. Any provision which by its nature or express terms should survive, including the provisions of Section 4.2.4, ARTICLE 5, ARTICLE 10, ARTICLE 11 and ARTICLE 13, will survive the expiration or termination of this Agreement.

4.2.4. Upon any expiration or termination of this Agreement in whole or in part and for any reason (a) each Party will use commercially reasonable efforts to cooperate with the other Party as reasonably necessary to avoid disruption of the ordinary course of the other Party's business and (b) Service Provider will deliver the Data to Service Recipient in accordance with Section 7.4 and will deliver other assets of Service Recipient in the possession of Service Provider. Each Party will promptly return to the other Party or destroy any and all Confidential

Information or other proprietary information of such other Party in its or its Affiliates' possession upon expiration or termination of this Agreement.

ARTICLE 5
PAYMENT TERMS

5.1. Charges for Services. Service Recipient will pay Service Provider the charges, if any, set forth on the applicable Transition Service Schedule for each Service listed therein as adjusted, from time to time, in accordance with Section 5.3.

5.2. Expenses. Service Recipient will, for each Service performed, reimburse Service Provider for any reasonable documented out-of-pocket expenses payable to Third Parties which are incurred by Service Provider or its Affiliates in connection with Service Provider's provision of such Service ("Expenses"); provided that the Expenses will not include the allocation of any corporate overhead or similar expenses incurred by Service Provider or its Affiliates in connection with the performance of the Services. Within ten (10) days after the end of each calendar month during the Term, Service Provider will provide Service Recipient with a report detailing the Expenses for such previous month. In addition, Service Provider will provide Service Recipient with advance written notice of any single Expense or series of related Expenses expected to be in excess of $25,000.

5.3. Payment Terms. Service Provider will bill Service Recipient quarterly for all charges pursuant to this Agreement for the previous calendar quarter. Such invoices will contain reasonable detail of the Services provided and the charge therefor. Service Recipient will pay Service Provider for all undisputed amounts due for Services provided hereunder within thirty (30) days from receipt of an invoice therefor. Late payments will bear interest at the lesser of twelve percent (12%) per annum or the maximum rate allowed by law. The Parties acknowledge and agree that failure to pay undisputed amounts due hereunder pursuant to the terms of this Agreement is a material breach and Service Provider may terminate this Agreement under Section 4.2.

5.4. Disputed Amounts. Amounts due hereunder will not be offset by amounts due under any other agreement. Disputes related to any other agreement will not serve as grounds to delay obligations under this Agreement. In particular, Service Recipient will not, and will cause its Affiliates to not, offset amounts owed to Service Provider or any Affiliate under this Agreement against amounts owed or allegedly owed by Service Provider or any Affiliate to Service Recipient or any Affiliate under any circumstances, and Service Recipient hereby irrevocably waives any such right on its own behalf and on behalf of each of its Affiliates.

ARTICLE 6
TRANSITION SERVICE RESPONSIBILITIES

6.1. Cooperation; Facilities; Access to Information. The Parties will use good faith efforts to cooperate with each other in all matters relating to the provision and receipt of Services. Such cooperation will include exchanging information relevant to the provision of Services hereunder, good faith efforts to mitigate problems with the work environment

interfering with the Services, and each Party requiring its personnel to obey any security regulations and other published policies of the other Party while on the other Party's premises. In addition, Service Recipient will provide Service Provider with access to its facilities as is reasonably necessary for Service Provider to perform the Services it is obligated to provide hereunder, provide Service Provider with information and documentation reasonably necessary for Service Provider to perform the Services it is obligated to provide hereunder, and make available, as reasonably requested by Service Provider, reasonable access to resources and provide timely decisions in order that Service Provider may perform its obligations hereunder.

6.2. Savings Clause. To the extent Service Recipient's failure to discharge its obligations set forth in Section 6.1 or elsewhere in this Agreement impedes Service Provider's ability to provide any Service or Additional Service hereunder, Service Provider will be excused from its obligation to provide such Services or Additional Services hereunder, provided, that Service Provider provides Service Recipient with notice of Service Recipient's failure to meet such obligation promptly after Service Provider becomes aware of such failure.

ARTICLE 7
INTELLECTUAL PROPERTY

7.1. Existing Ownership Rights Unaffected. Except as expressly set out in this ARTICLE 7, neither Party will gain, by virtue of this Agreement, any rights of ownership or use of Copyrights, Patents, Trade Secrets, Trademarks or any other Intellectual Property owned by the other Party.

7.2. Trademarks. Neither Party is granted hereunder any ownership in or license to the Trademarks of the other Party.

7.3. Removal of Marks. Neither Party will remove any Copyright notices, proprietary markings, Trademarks or other indicia of ownership of the other Party from any materials of the other Party.

7.4. Ownership of Data and Intellectual Property. Service Recipient will own all data and records created by Service Recipient or any of its Affiliates related exclusively to the Business and generated in connection with the performance of the Services (the "Data"). Service Provider will and hereby does, without further consideration, assign (and will cause its Affiliates to assign) to Service Recipient any and all right, title or interest that Service Provider or its Affiliates may possess in or to the Data. Upon Service Recipient's request, Service Provider will provide Service Recipient with copies of the Data in the format in which such Data is generated.

ARTICLE 8
RELATIONSHIP BETWEEN THE PARTIES

8.1. The Parties to this Agreement are and will remain independent contractors and neither Party is an employee, agent, partner, franchisee or joint venturer of or with the other. Each Party will be solely responsible for any employment-related taxes, insurance

premiums or other employment benefits respecting its employees. Neither Party will hold itself out as an agent of the other and neither Party will have the authority to bind the other. (A) No Service Recipient employees, agents or representatives (including the Service Recipient Personnel) shall be eligible to participate in any benefit programs or sales or other bonuses offered by Service Provider to its employees, or in any retirement plans, profit sharing plans, insurance plans, separation plans or any other employee welfare or benefit plans offered from time to time by Service Provider to its employees. Service Recipient acknowledges that none of its employees, agents or representatives (including the Service Recipient Personnel) shall be eligible to participate in, and Service Provider does not and will not maintain or procure for or on such personnel's behalf, any worker's compensation or unemployment compensation insurance. (B) No Service Provider employees, agents or representatives (including the Service Provider Personnel) shall be eligible to participate in any benefit programs or sales or other bonuses offered by Service Recipient to its employees, or in any retirement plans, profit sharing plans, insurance plans, separation plans or any other employee welfare or benefit plans offered from time to time by Service Recipient to its employees. Service Provider acknowledges that none of its employees, agents or representatives (including the Service Provider Personnel) shall be eligible to participate in, and Service Recipient does not and will not maintain or procure for or on such personnel's behalf, any worker's compensation or unemployment compensation insurance.

8.2. (A) Neither the execution of this Agreement, nor performance of Services by the Service Provider and/or any of its Affiliates shall cause the Service Recipient and/or any of its Affiliates or any person or entity employed or engaged by the Service Recipient and/or any of its Affiliates, including the Transferred Employees (collectively "Service Recipient Personnel") to be or to be construed to be an agent, employee or legal representative of the Service Provider and/or any of its Affiliates for any purpose whatsoever. The Service Recipient Personnel shall not be considered to be employees of the Service Provider and/or any of its Affiliates for any purpose (including Section 8.1), and neither the Service Provider nor any of its Affiliates shall be or be deemed to be an employer or joint employer of the Service Recipient Personnel. (B) Neither the execution of this Agreement, nor performance of Services by the Service Provider and/or any of its Affiliates shall cause the Service Provider and/or any of its Affiliates or any person or entity employed or engaged by the Service Provider and/or any of its Affiliates, (collectively "Service Provider Personnel") to be or to be construed to be an agent, employee or legal representative of the Service Recipient and/or any of its Affiliates for any purpose whatsoever. The Service Provider Personnel shall not be considered to be employees of the Service Recipient and/or any of its Affiliates for any purpose (including Section 8.1), and neither the Service Recipient nor any of its Affiliates shall be or be deemed to be an employer or joint employer of the Service Provider Personnel.

8.3. Notwithstanding anything else in this Agreement and/or the Transition Services Schedule, only members of the Service Recipient Personnel (the "Cleared Service Recipient Personnel") who executed and delivered to the Service Provider an acknowledgment and waiver in the form attached hereto as Schedule 3 may receive, or benefit from, Services that involve access to the information services systems and applications of the Service Provider listed in Schedule 2, and the Service Provider is

under no obligation to provide any such Services to the extent any Service Recipient Personnel other than the Cleared Service Recipient Personnel would receive, or benefit from, such Services.

ARTICLE 9
AFFILIATE PERFORMANCE

Service Provider may engage one or more Affiliates to perform all or any portion of Service Provider's duties under this Agreement; provided that Service Provider remains liable for the performance of such Affiliates.

ARTICLE 10
INDEMNIFICATION

10.1. Service Recipient will indemnify, defend and hold harmless Service Provider and its officers, directors, agents, employees and Affiliates, from and against any and all Damages, including reasonable attorneys' fees (collectively, "Losses") arising out of, relating to or resulting from (a) Service Recipient's material breach of this Agreement, (b) Service Recipient's gross negligence or willful misconduct in connection with its receipt of Services or Additional Services pursuant to this Agreement, (c) Service Recipient Personnel's misuse of any of Service Provider's systems or Services, (d) Service Recipient Personnel's willful misconduct in connection with the use of Service Provider's systems or Services, or (e) Service Provider's provision of Services or Additional Services pursuant to and in accordance with this Agreement, except for those Losses for which Service Provider is obligated to indemnify, defend and hold harmless Service Recipient and its officers, directors, agents, employees and Affiliates pursuant to Section 10.1. Service Recipient will further indemnify, defend and hold harmless Service Provider and its officers, directors, agents, employees and Affiliates, from and against any and all Losses arising out of, relating to or resulting from any Service Recipient Personnel being classified as, or determined to be, co-employed by, or a common-law employee of, the Service Provider and/or any of its Affiliates.

10.2. Service Provider will indemnify, defend and hold harmless Service Recipient and its officers, directors, agents, employees and Affiliates from and against any and all Losses arising out of, relating to or resulting from (a) Service Provider's material breach of this Agreement, (b) Service Provider's gross negligence or willful misconduct in the provision of Services or Additional Services pursuant to this Agreement, (c) any Service Provider Personnel's willful misconduct in connection with providing the Services or Additional Services pursuant to this Agreement, or (d) any Service Provider Personnel's disclosure or misuse of the Service Recipient's Confidential Information. Service Provider will further indemnify, defend and hold harmless Service Recipient and its officers, directors, agents, employees and Affiliates, from and against any and all Losses arising out of, relating to or resulting from any Service Provider Personnel being classified as, or determined to be, co-employed by, or a common-law employee of, the Service Recipient and/or any of its Affiliates.

10.3. An indemnifying Party's indemnification obligations hereunder will be conditioned upon (a) the indemnified Party providing the indemnifying Party with written notice describing such indemnification claim ("Claim") in reasonable detail in light of the circumstances then known and then providing the indemnifying Party with further notices to keep it reasonably informed with respect thereto; provided however, that failure of the indemnified Party to provide such notice or keep the indemnifying Party reasonably informed as provided herein will not relieve the indemnifying Party of its obligations hereunder except to the extent, if any, that the indemnified Party is materially prejudiced thereby, (b) the indemnifying Party being entitled to participate in such Claim and assume the defense thereof with counsel reasonably satisfactory to the indemnified Party, at the indemnifying Party's sole expense, and (c) the indemnified Party reasonably cooperating with the indemnifying Party, at the indemnifying Party's sole cost and expense, in the defense of any Claim. The indemnifying Party will not accept any settlement that places restrictions on any indemnified Party or requires any payment by any indemnified Party and, further, will not accept any settlement unless the settlement includes as an unconditional term thereof the giving by the claimant or the plaintiff of a full and unconditional release of the indemnified Parties, from all liability with respect to the matters that are subject to such Claim, without the indemnified Party's prior written consent, which consent will not be unreasonably withheld, delayed or conditioned. The indemnified Party may participate in the defense of any claim with counsel reasonably acceptable to the indemnifying Party, at the indemnified Party's own expense.

10.4. With the exception of any claims of fraud which are proven and upon which a judgment entered in the involved proceeding will be expressly based, the Parties acknowledge and agree that the provisions of ARTICLE 10 will be the exclusive remedy for all claims relating to this Agreement, including the negotiation or performance hereof.

10.5. EXCEPT AS EXPRESSLY SET FORTH IN THIS AGREEMENT, SERVICE PROVIDER MAKES NO WARRANTY OR REPRESENTATION WHATSOEVER, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR AGAINST INFRINGEMENT.

ARTICLE 11
LIMITATION OF LIABILITY, DISCLAIMER OF CONSEQUENTIAL DAMAGES AND CAP ON LIABILITY

TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LEGAL REQUIREMENTS, AND EXCEPT FOR CLAIMS PURSUANT TO ARTICLE 10 AND IN CIRCUMSTANCES WHERE AWARDED TO A THIRD PARTY, (A) NEITHER PARTY WILL BE LIABLE TO THE OTHER FOR ANY LOST PROFITS OR OTHER SPECIAL, INCIDENTAL, INDIRECT, PUNITIVE OR CONSEQUENTIAL DAMAGES, HOWEVER CAUSED, UNDER ANY THEORY OF LIABILITY, ARISING FROM THE PERFORMANCE OF, OR RELATING TO, THIS AGREEMENT REGARDLESS OF WHETHER SUCH PARTY HAS BEEN NOTIFIED OF THE POSSIBILITY OF, OR THE FORESEEABILITY OF, SUCH DAMAGES; AND (B) EACH PARTY'S LIABILITY FOR DAMAGES IN CONNECTION WITH THIS AGREEMENT OR THE PERFORMANCE OR NEGOTIATION HEREOF WILL

NOT EXCEED THE AMOUNT OF THE FEES PAID (OR PAYABLE) BY SERVICE RECIPIENT TO SERVICE PROVIDER UNDER THE APPLICABLE TRANSITION SERVICES SCHEDULE FROM WHICH SUCH CLAIM ARISES.

ARTICLE 12
FORCE MAJEURE

Each Party will be excused for any failure or delay in performing any of its obligations under this Agreement, other than the obligations of Service Recipient to make payments to Service Provider for Services already rendered, if such failure or delay is caused by any act of God, any accident, explosion, fire, act of terrorism, storm, earthquake, flood or any other circumstance or event outside of such Party's reasonable control.

ARTICLE 13
MISCELLANEOUS

13.1. Records. Service Provider shall maintain accurate records arising from or related to any Services provided hereunder, including accounting records and documentation produced in connection with the rendering of any Service, substantially consistent with Service Provider's past practices for similar services provided for its own account.

13.2. Inspection Rights. During the Term and for ninety (90) days thereafter, Service Provider shall, upon reasonable prior written notice from Service Recipient, permit Service Recipient, or its designated representatives, to inspect and audit Service Provider's records relating to the Services during regular business hours, with the right to make any copies, for the sole purpose of verifying the amount charged by Service Provider for provision of the Services; provided, that Service Recipient shall comply with Service Provider's reasonable security and safety procedures as such procedures are communicated to Service Recipient.

13.3. SDEA. Within 30 days after the Execution Date but in no event later than the day on which the first Business Permit (i.e., relevant product registration) in respect of any Product will be effectively transferred from the relevant Selling Person to Purchaser in accordance with the Asset Purchase Agreement, the Service Provider (or its relevant Affiliate) and the Service Recipient shall in good faith negotiate and agree in writing a Safety Data and Exchange Agreement ("SDEA"). Such SDEA shall be on terms and conditions customary for similar transactions, and shall govern the transition of pharmacovigilance activities from the relevant Selling Person (and/or its Affiliates) to the Purchaser and the transfer of the safety database at a mutually agreed date. The SDEA shall enable worldwide safety surveillance and risk management and allow each Party to comply with its legal and regulatory obligations as legal manufacturer or holder of the relevant Business Permit (i.e., relevant product registration). The SDEA will be signed by authorized departments of the Parties and shall be considered part of this Agreement, provided however that it can be amended separately without the need to amend this Agreement as a whole.

13.4. Interpretation. Except as otherwise explicitly specified to the contrary, (a) references to a section, exhibit or schedule means a section of, or schedule or exhibit to this Agreement, unless another agreement is specified, (b) the word "including" (in its various forms) means "including without limitation," (c) references to a particular statute or regulation include all rules and regulations thereunder and any predecessor or successor statute, rules or regulation, in each case as amended or otherwise modified from time to time, (d) words in the singular or plural form include the plural and singular form, respectively, (e) references to a particular Person include such Person's successors and assigns to the extent not prohibited by this Agreement, (f) unless otherwise specified "$" is in reference to United States dollars, and (g) the headings contained in this Agreement, in any exhibit or schedule to this Agreement and in the table of contents to this Agreement are for reference purposes only and will not affect in any way the meaning or interpretation of this Agreement.

13.5. Entire Agreement. This Agreement together with the Asset Purchase Agreement and the other Ancillary Agreements, constitutes the entire agreement between and among the Parties with regard to the subject matter of this Agreement, and supersedes all prior agreements and understandings with regard to such subject matter. Except for the Confidentiality Agreement, there are now no agreements, representations or warranties between or among the Parties other than those set forth in the Agreement, the Asset Purchase Agreement or the Ancillary Agreements.

13.6. Amendment, Waivers and Consents. This Agreement may not be changed or modified, in whole or in part, except by supplemental agreement or amendment signed by the Parties. Any Party may waive compliance by any other Party with any of the covenants or conditions of this Agreement, but no waiver will be binding unless executed in writing by the Party making the waiver. No waiver of any provision of this Agreement will be deemed, or will constitute, a waiver of any other provision, whether or not similar, nor will any waiver constitute a continuing waiver. Any consent under this Agreement must be in writing and will be effective only to the extent specifically set forth in such writing.

13.7. Successors and Assigns. This Agreement will bind and inure to the benefit of the Parties and their respective successors and permitted assigns, provided, however, that no Party may assign any right or obligation hereunder without the prior written consent of all other Parties.

13.8. Governing Law. The rights and obligations of the Parties will be governed by, and this Agreement will be interpreted, construed and enforced in accordance with, the laws of the State of New York, excluding its conflict of laws rules to the extent such rules would apply the law of another jurisdiction.

13.9. Jurisdiction; Waiver of Jury Trial.

13.9.1. Any judicial proceeding brought against any Party or any dispute arising out of this Agreement or related to this Agreement, or the negotiation or performance hereof, must be brought in the courts of the State of New York, or in

the U.S. District Court for the State of New York, and, by execution and delivery of this Agreement, each of the Parties accepts the exclusive jurisdiction of such courts, and irrevocably agrees to be bound by any judgment rendered thereby in connection with this Agreement and waives any claim and will not assert that venue should properly lie in any other location within the selected jurisdiction. The consents to jurisdiction in this Section 13.9.1 will not constitute general consents to service of process in the State of New York for any purpose except as provided in this Section 13.9.1 and will not be deemed to confer rights on any Person other than the Parties. Service of any process, summons, notice or document by U.S. mail to a Party's address for notice provided in or in accordance with Section 13.12 will be effective service of process for any action, suit or proceeding in the State of New York with respect to any matters for which it has submitted to jurisdiction pursuant to this Section 13.9.1.

13.9.2. TO THE EXTENT NOT PROHIBITED BY APPLICABLE LAW THAT CANNOT BE WAIVED, THE PARTIES HEREBY WAIVE, AND COVENANT THAT THEY WILL NOT ASSERT (WHETHER AS PLAINTIFF, DEFENDANT OR OTHERWISE), ANY RIGHT TO TRIAL BY JURY IN ANY ACTION ARISING IN WHOLE OR IN PART UNDER OR IN CONNECTION WITH THIS AGREEMENT, WHETHER NOW EXISTING OR HEREAFTER ARISING, AND WHETHER SOUNDING IN CONTRACT, TORT OR OTHERWISE. THE PARTIES AGREE THAT ANY OF THEM MAY FILE A COPY OF THIS PARAGRAPH WITH ANY COURT AS WRITTEN EVIDENCE OF THE KNOWING, VOLUNTARY AND BARGAINED-FOR AGREEMENT AMONG THE PARTIES IRREVOCABLY TO WAIVE ITS RIGHT TO TRIAL BY JURY IN ANY PROCEEDING WHATSOEVER BETWEEN THEM RELATING TO THIS AGREEMENT AND SUCH PROCEEDINGS WILL INSTEAD BE TRIED IN A COURT OF COMPETENT JURISDICTION BY A JUDGE SITTING WITHOUT A JURY.

13.10. Rules of Construction. The Parties acknowledge that each Party has read and negotiated the language used in this Agreement. Because all Parties participated in negotiating and drafting this Agreement, no rule of construction will apply to this Agreement which construes ambiguous language in favor of or against any Party by reason of that Party's role in drafting this Agreement.

13.11. Severability. If any provision of this Agreement, as applied to either Party or to any circumstance, is declared by a court of competent jurisdiction to be illegal, unenforceable or void, this Agreement will continue in full force and effect without said provision.

13.12. Notices. Any notice required or permitted to be given hereunder must be provided in writing and (a) delivered in person or by express delivery or courier service, (b) sent by facsimile, or (c) deposited in the mail registered or certified first class, postage prepaid and return receipt requested (provided that any notice given pursuant to subsection (b) of this Section 13.12 is also confirmed by the means described in subsections (a) or (c) of this Section 13.12) to such address or facsimile of the Party set forth in this Section 13.12

or to such other place or places as such Party from time to time may designate in writing in compliance with the terms of this Section 13.12. Each notice will be deemed given when so delivered personally, or sent by facsimile transmission, or, if sent by express delivery or courier service, one Business Day after being sent, or if mailed, five Business Days after the date of deposit in the mail. A notice of change of address or facsimile number will be effective only when done in accordance with this Section 13.12.

(i) To Service Recipient at:

Aastrom Biosciences, Inc.
Domino's Farms, Lobby K
24 Frank Lloyd Wright Drive
Ann Arbor, MI 48105

Attention:	Nick Colangelo
Fax:	1-734-665-0485
Phone:	1-734-418-4400

with a copy to:

Goodwin Procter LLP
53 State Street
Exchange Place
Boston, MA 02109

Attention:	Mitchell S. Bloom, Esq. Danielle Lauzon, Esq.
Fax:	1-617-523-1231
Phone:	1-617-570-1000

(ii) To Service Provider at:

Genzyme Corporation
55 Cambridge Parkway
Cambridge, MA 02142

Attention:	Head of Biosurgery Global GSU
Facsimile:	1-617-761-8918

with a copy to:

Sanofi
54, rue la Boétie
75008 Paris
France

Attention:	General Counsel

Facsimile: 33-1-5377-4303

and

Ropes & Gray LLP
Prudential Tower
800 Boylston Street
Boston, MA 02199-3600

Attention: Christopher Comeau
Facsimile: 1-617-235-0566

13.13. Rights of Parties. Nothing in this Agreement, whether express 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 permitted assigns, nor is anything in this Agreement intended to relieve or discharge the obligation or liability of any Third Party to any Party, nor will any provision give any Third Party any right of subrogation or action over or against any Party.

13.14. Counterparts. This Agreement may be signed in any number of counterparts, including by facsimile copies or by electronic scan copies delivered by email, each of which will be deemed an original, with the same effect as if the signatures were upon the same instrument.

13.15. Confidentiality.

13.15.1. Neither Party shall possess any interest, title, lien or right in any Confidential Information of the other Party that is exchanged pursuant to or in connection with the terms of this Agreement. Each Party agrees not to (i) disclose the Confidential Information of the other Party to any third party or (ii) use the Confidential Information of the other Party except as necessary to perform its obligations under this Agreement, in either case without the express prior written consent of the other Party, and each Party shall be responsible for any breaches of this Section 13.15 by its directors, officers, employees, representatives (including financial advisors, attorneys and accountants) or agents (collectively, the "Representatives").

13.15.2. The term "Confidential Information" will not, however, include information which (i) is or becomes publicly available other than as a result of a disclosure by the Party or such Party's Representatives receiving the Confidential Information in violation of this Agreement; (ii) is or becomes available on a non-confidential basis from a third-party source (other than the party providing, directly or indirectly, its Confidential Information), which, to the best of the knowledge of the Party receiving Confidential Information after due inquiry, is not prohibited from disclosing such information to it by a legal, contractual or fiduciary obligation to the party providing the Confidential Information; or (iii) was independently developed or learned by a party without the use or reference to the other Party's Confidential Information.

13.15.3. Upon or after the termination or expiration of this Agreement pursuant to Section 4.1 and upon the relevant disclosing Party's written request, the applicable receiving Party shall within thirty (30) business days of such request destroy all copies of such disclosing Party's Confidential Information in its possession or in the possession of any of its Representatives. Notwithstanding the foregoing, the receiving Party of such Confidential Information shall be permitted, subject to its continued compliance with the confidentiality and restricted-use obligations specified in this Agreement, (i) to retain all or any portion of such Confidential Information to the extent necessary for the purposes of maintaning its legal file and using the same to defend against any claims or actions threatened or instituted involving such Confidential Information, and (ii) entitled to retain copies of any computer records and files containing such Confidential Information which have been created pursuant to its automatic electronic archiving and back up procedures. If so requested by the relevant disclosing Party, the receiving Party shall confirm in writing that its undertakings relating to the destruction of any such Confidential Information have been complied with.

13.15.4. Notwithstanding the other provisions of this Section 13.15 either Party may disclose any Confidential Information of the other Party to the extent required by applicable Legal Requirements, The Nasdaq Stock Market, GAAP or IFRS or any disclosure made in connection with the enforcement of any right or remedy relating to this Agreement or the Services; provided that any Party that is requested pursuant to, or required by, applicable Legal Requirements, The Nasdaq Stock Market, GAAP or IFRS to disclose any Confidential Information, shall provide the other Party with reasonable prior written notice of such requests or requirement and a reasonable opportunity is afforded to contest the same.

13.15.5. This Section 13.15, and all rights and obligations hereunder, shall expire three (3) years following the later of (i) the expiration or termination of this Agreement in accordance with its terms and (ii) the delivery to Aastrom by Sanofi, Service Provider or any of their Affiliates of historical safety data and applicable research and development data. Nothing in this Section 13.15 shall be deemed to limit any rights of Sanofi or Aastrom set forth in the Asset Purchase Agreement.

(The remainder of this page has been intentionally left blank.)

IN WITNESS WHEREOF, each of the Parties has caused this Agreement to be executed on its behalf by their respective officers thereunto duly authorized all as of the Execution Date.

AASTROM BIOSCIENCES, INC.

By: /s/ Dominick C. Colangelo
Name: Dominick C. Colangelo
Title: President and CEO

GENZYME CORPORATION

By: /s/ Jerome Delpech
Name: Jerome Delpech
Title: Attorney-in-Fact

FIRST AMENDMENT TO TRANSITION SERVICES AGREEMENT

This first Amendment effective as of the date last signed by both parties ("First Amendment") by and between Genzyme Corporation, a Massachusetts corporation ("Services Provider"), and Aastrom Biosciences Inc., a Michigan corporation ("Service Recipient").

WHEREAS, effective as of May 30, 2014, Service Provider and Service Recipient entered into a Transition Services Agreement (the "Agreement") relative to certain services to be performed by Service Provider.

NOW, THEREFORE, in consideration of the above-recitals, the mutual benefits to be derived by the parties, and other good and valuable consideration, the receipt and satisfaction of which are acknowledged, Service Provider and Service Recipient agree to amend the Agreement as follows:

(1) The Service description in Line item #4, Section 6 (Commercial) of Schedule 1 of the Agreement is deleted and replaced with the following

Services
Service Provider will provide Service Recipient support for ASP reporting as follows: ▪ Service Recipient shall provide the wholesale acquisition cost for Carticel in effect during the quarter. ▪ Service Recipient shall provide any changes to the Carticel NDC. ▪ Service Recipient shall provide all relevant data required for the calculation of ASP no fewer than fifteen (15) business days prior to the ASP quarterly submission deadline established by CMS. The relevant data must be accurate and complete, may be provided in electronic format, and shall include, but is not limited to, gross units, gross sales, on invoice discounts and all price concessions such as off invoice discounts, rebates, volume rebates, market share rebates, bundled sales, prompt pay discounts, free goods that are contingent on any purchase requirement, and fees for data or services that do not meet the definition of bona fide service fees and have been paid during the quarter. This data shall also include customer name, amount of payment, date paid, class of trade, description of price concessions and any other reasonable information that Service Provider would need in calculating the ASP. Service Recipient shall respond to any questions from Service Provider about the data within one (1) business day and shall provide additional information as requested in a timely manner. ▪ Based on data provided by Service Recipient and/or made available to Service Provider by Service Recipient as described above, Service Provider will calculate the ASP prices for Carticel and provide Service Recipient the ASP calculations no fewer than six (6) business days prior to the ASP quarterly submission deadline. ▪ Service Recipient will promptly review, validate, sign and provide appropriate certification for the report. Service Recipient shall submit the quarterly report to CMS prior to the CMS established deadline for each quarter. ▪ Service Provider will provide general advice on reporting requirements and process as necessary to assist Service Recipient in fulfilling the task specified in the above mentioned bullets.

This First Amendment will terminate in accordance with the terms set forth in the Agreement.

Except as set forth in this First Amendment, the terms of the Agreement shall remain in full force and effect; provided however, that in the event of a conflict between a term contained in this First Amendment and a term contained in the Agreement, the term contained in this First Amendment shall prevail.

IN WITNESS WHEREOF, Service Provider and Service Recipient have caused this First Amendment to the Agreement to be executed by their duly authorized representatives as of the date first above written.

GENZYME CORPORATION	AASTROM BIOSERVICES, INC
Signature: /s/ Steve Couldwell	Signature: /s/ Daniel R. Orlando
Name: Steve Couldwell	Name: Daniel R. Orlando
Title: VP / GM	Title:COO
Date: July 30, 2009	Date:7.29.14

SECOND AMENDMENT TO TRANSITION SERVICES AGREEMENT

This second Amendment effective as of the date last signed by both parties ("Second Amendment") is by and between Genzyme Corporation, a Massachusetts corporation ("Services Provider"), and Aastrom Biosciences Inc., a Michigan corporation ("Service Recipient"), (collectively, the "Parties").

WHEREAS, effective as of May 30, 2014, Service Provider and Service Recipient entered into a Transition Services Agreement (the "Agreement") which described transition services that Service Provider agreed to provide to Service Recipient in support of the sale of three (3) products (Carticel, Epicel and Matrix Applied Characterized Autologous Cultured Chondrocytes [MACI]) to Service Recipient (the terms of the sale are memorialized in a separate Asset Purchase Agreement).

WHEREAS, the Agreement described certain services related to MACI which Service Provider agreed to provide until the transfer date of the MACI European centralized Marketing Authorization (the "MA") (originally anticipated to occur no later than November 30, 2014).

WHEREAS, Service Recipient subsequently made a business decision to no longer manufacture MACI from the Kastrup manufacturing site in Denmark as of August 22, 2014 ("Site Closure Date").

WHEREAS, the Parties have been informed by the European Medicines Agency (EMA) that (i) the manufacturing site closure will result in a suspension of the MA once the EMA is notified of the closure and (ii) Service Provider will not be able to transfer the MA to Service Recipient while the license is in a suspended status.

WHEREAS, the EMA has informed the Parties that if the MA transfer application can be completed and submitted to the agency by August 11, 2014, the agency will expedite the review and approval of the transfer application to facilitate a transfer of the marketing authorization on or prior to the Site Closure Date and the corresponding suspension.

WHEREAS, in light of the EMA's notification, the Parties agree that it is in their best interests to accelerate the marketing authorization transfer for MACI and complete such transfer prior to the Site Closure Date.

WHEREAS, Service Recipient lacks certain capabilities to allow Service Recipient to fulfill all the regulatory responsibilities of a holder of a suspended European centralized marketing authorization and for that purpose, has asked Service Provider to provide certain services beyond the MACI marketing authorization transfer date in order to provide Service Recipient an additional time period to contract with a third party vendor (CRO) to assume these functions (anticipated to occur by November 30, 2014).

WHEREAS, Service Provider has agreed to provide these services, subject to certain dependencies and limitations specified in this Second Amendment.

NOW, THEREFORE, in consideration of the above-recitals, the mutual benefits to be derived by the parties, and other good and valuable consideration, the receipt and satisfaction of which are acknowledged, Service Provider and Service Recipient agree to amend the Agreement as follows:

(1) Unless otherwise specified herein, the scope of the activities and services outlined in this Second Amendment are limited to MACI only,

(2) Section 1 of Schedule 1 entitled “Regulatory and Pharmacovigilance” shall be renamed “Regulatory and Pharmacovigilance Activities for Epicel and Carticel”

(3) Row #7 and Row #8 of Section 1 of Schedule 1 shall be deleted

(4) A new Section 1A is hereby created as follows:

Section 1A

REGULATORY and PHARMACOVIGILANCE ACTIVITIES FOR MACI

Provided the European marketing authorization transfer for MACI is completed prior to the license suspension, and except as otherwise noted below, Service Provider shall perform the following services up until November 30, 2014. For the avoidance of doubt and except as otherwise noted below, the provision of services by Service Provider after November 30, 2014 is subject to the execution of a separate amendment hereto.

#	Function	Region	Title	TSA Scope	Duration (Months)	Billing/ Fee
1	Regulatory	EU	Label Support	Without prejudice to section 7.14 of the Asset Purchase Agreement, Service Provider will provide labeling support and provide labels until Service Recipient becomes the MA holder for MACI. Once Service Recipient becomes the MA holder for MACI, all labels will be in Service Recipient’s name and no labeling support will be provided	Until Service Recipient becomes marketing authorization holder	
2	Regulatory	EU	EMA Point of Contact	Service Provider will remain point of contact until Service Recipient becomes the MA holder for MACI. Thereafter, Service Recipient will assume the obligation of providing a point of contact to the EMA	Until Service Recipient becomes marketing authorization holder	
3	Regulatory	EU	Submission to the Health Authorities	Except with respect to the aggregate and individual case report submissions which are detailed in row #5 below, Service Provider, working with Service Recipient, will make all EMA and EU national health authorities’ submissions relating to the MA for MACI until Service Recipient becomes the MA holder. Thereafter, Service Recipient will take on this responsibility.	Until Service Recipient becomes marketing authorization holder	
4	Regulatory / Safety	EU	QPPV Role	Service Provider will provide a qualified person to act as QPPV for MACI until the earlier of (i) the date Service Recipient has a qualified QPPV in place or (ii) November 30, 2014	See TSA Scope	

5	Regulatory / Safety	EU	Safety Requirements	Service Provider will provide the following support to Service Recipient until the earlier of (i) the date Service Recipient acquires the capability to support these activities or (ii) November 30, 2014 (unless otherwise specified below): ▫ Maintaining oversight on the product safety which includes ongoing medical assessment and monitoring of cumulative product safety data (all sources), signal detection on single case and aggregate data level, support to Service Recipient on their signal management responsibilities and the following tasks: o Safety monitoring of ongoing safety study (SUMMIT Extension Trial only) for as long as Service Provider or its affiliate remains the sponsor of the study o Preparation of DSURs for as long as Service Provider or its affiliate remains the sponsor of the study, and (iii) Semi-annual safety report up through data lock (December 27, 2014) o Collection and documentation of Pharmacovigliance (PV) data ■ Scientific and medical literature screening ■ Reconciliation of exchange of cases in collaboration with Service Recipient o Maintenance of the Global PV Database which includes individual case safety report processing in this database ▫ Providing advice to Service Recipient to assist it in its management of emerging safety issues, alerts, crises, or regulatory actions for safety reasons ▫ Providing advice to Service Recipient with respect to its pharmacovigilance related		

				responses to health authority request ▫ Submitting individual case safety reports to the competent health authorities, as appropriate ▫ Preparing and submitting safety reports (PBRER), for the reference period covering 28Dec2013 through 27Jun2014, (due date 05Sep2014) ▫ Monitoring compliance with expedited and periodic reporting to the competent health authorities ▫ Assisting Service Recipient with proposed updates to the risk management plan as needed for Service Recipient's submission to the competent authorities ▫ Operating and maintaining Service Provider's Pharmacovigilance Systems in support of Service Recipient's marketing authorization until the earlier of (i) the date when Service Recipient acquires and implements a PV system capable of fulfilling this role or (ii) November 30, 2014. ▫ Providing Service Provider's Summary PHARMACOVIGILANCE SYSTEM MASTER FILE (Summary PSMF), to competent authorities, upon the authorities' request, to document the pharmacovigilance system supporting MACI until November 30, 2014 at the latest ▫ Providing pharmacovigilance Source Document Retention a Supporting Service Recipient with the management of issues related to any pharmacovigilance inspection by competent health authorities ▫ Assisting Service Recipient with covering the relevant Post Approval Commitments under the MACI RMP ▫ Assisting Service Recipient with the transfer of pharmacovigilance related information, including the safety database transfer, to the CRO who will take over the PV activities. The Parties agree to negotiate in good faith a Safety Data Exchange Agreement (SDEA) consistent with the relevant elements described in Sections 1 and 1A of the Agreement, (5) Section 2 of Schedule 1 entitled "Medical Affairs and Medical Information" is deleted and replaced with the following		

(5) Section 2 of Schedule 1 entitled “Medical Affairs and Medical Information” is deleted and replaced with the following

SECTION 2

MEDICAL AFFAIRS AND MEDICAL INFORMATION

#	Function	Region	Title	Service	Term Months	Billing/ Fee
1	Clinical/ Med Affairs	EU	Pediatric Investigation Study (PIP)	Service Provider will collaborate with Service Recipient in completing the PIP change of ownership document	Until the earlier of Service Recipient becoming MAH for MACI or November 30, 2014.	
2	Medical Affairs	Global	Medical writing and publication management	Service Provider will continue to provide publication monitoring and surveillance activities in support of periodic safety reports with Service Recipient’s vendor of choice provided Service Recipient ensures such vendor reasonably cooperates with Service Provider	6	
3	Medical Affairs	US	Promotional material review ERC/ePML/ 4M	Service Provider will have final approval authority of promotional materials and medical communications following Service Recipient review until license transfer	Until the earlier of Service Recipient becoming MAH for Carticel and Epicel or November 30, 2014.	
4	Medical Affairs	EU	EU Promotional material review ERC/ePME/4 M	Service Provider will have final approval authority of promotional materials and medical communications related to MACI following Service Recipient review	Until the earlier of Service Recipient becoming MAH for MACI or November 30, 2014	
5	Clinical, Medical Affairs, Program Management	US	SUMMIT Extension Trial	Service Provider will continue to support SUMMIT Extension trials until final (5 year) database lock	12	
6	Clinical, Medical Affairs, Program Management	EU	EU SUMMIT Extension Trial	Service Provider will continue to meet obligations as sponsor (including associated expenses) of the SUMMIT Extension Trials until final database lock	12 (Projected Date June 2015)	
7	Medical Affairs	Global/ US	Publication Compliance	Service Provider will continue to provide support for all publication compliance review through the CLEAR system	6	
8	Medical Affairs	EU	Publication Compliance	Service Provider shall continue to provide support for all publication compliance review through the CLEAR system	Until the earlier of Service Recipient becoming MATI for MACI or November 30, 2014	

9	Medical Affairs & Market Access	EU	MTA support	Service Provider will provide guidance on the process and data needed for the submission from personnel not transferring to Service Recipient. Service Recipient (or designated vendor) will develop and approve the full submission for NICE Note: MACI is to be included in a Multiple Technology Assessment (MTA) on Autologous chondrocyte implantation being performed by NICE	3	
10	Medical Affairs	Global	Scientific Review Committee	Service Provider will continue to review and approve all post-marketing clinical trials according to current SOPs. Service Recipient will approve and fund or reject the Service Provider approved post-marketing clinical trials.	Until the earlier of Service Recipient becoming MAH for MACI or until November 30, 2014	
11	Medical Affairs	Global/ US	Medical and Educational Grants and IITs	Service Provider may be asked to provide input for background or advice. Service Recipient will review and decide on all grant and I1T requests received alter the closure with advice or input from Service Provider as needed.	3	
12	Medical Affairs	US	Medical Information Services support	Service Provider to provide Medical Information Services (MIS) support to Service Recipient Service Provider to provide U.S. standard response documents and top inquiries training to Service Recipient Service Provider will assist Service Recipient with Voice Services in modifying telephony issues and transfer capabilities	6	
13	Clinical and Medical Affairs	US	Medical Support	Service Provider shall, upon request, provide expert medical opinion and consultation regarding Carticel and Epicel; such expert opinion will only be informative and without any liability on the Service Provider's or Service Provider Personnel's side.	12	
14	Medical Affairs	US/EU	Medical Affairs Point of Contact	Service Provider will make available to Service Recipient a point of contact to facilitate the provision of services described in this Section 2. Unless and until Service Provider indicates otherwise, the medical point of contact will be Richard Toselli.	6	
15	Clinical and Medical Affairs	EU	Medical Support	Service Provider shall, upon request, provide medical opinion and consultation regarding MACI. Such expert opinion will only be informative and without any liability on the Service Provider or Service Provider's personnel	Up until November 30, 2014	

* * *

The rights and obligations of the Parties or any dispute arising out of this Second Amendment will be interpreted, construed and enforced in accordance with the laws of the State of New York, excluding its conflict of laws rules to the extent such rules would apply the law of another jurisdiction.

This Second Amendment will terminate in accordance with the terms set forth in the Agreement.

Except as set forth in this Second Amendment, the terms of the Agreement (including but not limited to the Sections of Schedule 1 which are not amended in this Second Amendment) shall remain in full force and effect; provided however, that in the event of a conflict between a term contained in this Second Amendment and a term contained in the Agreement, the term contained in this Second Amendment shall prevail.

IN WITNESS WHEREOF, Service Provider and Service Recipient have caused this Second Amendment to the Agreement to be executed by their duly authorized representatives as of the date first above written.

GENZYME CORPORATION	AASTROM BIOSERVICES, INC
Signature: /s/ Steve Couldwell	Signature: /s/ Daniel Orlando
Name: Steve Couldwell	Name: Daniel Orlando
Title: GM Biosurgery	Title: COO
Date: Aug - 6 - 2014	Date: Aug - 6 - 2014

THIRD AMENDMENT TO TRANSITION SERVICES AGREEMENT

This third Amendment effective as of the date last signed by both parties ("Third Amendment") is by and between Genzyme Corporation, a Massachusetts corporation ("Service Provider"), and Vericel Corporation, formerly known as Aastrom Biosciences Inc., a Michigan corporation ("Service Recipient"), (collectively, the "Parties").

WHEREAS, effective as of May 30, 2014, Service Provider and Service Recipient entered into that certain Transition Services Agreement, as amended from time to time (collectively, the "Agreement") which described transition services that Service Provider agreed to provide to Service Recipient in support of the sale of three (3) products (Carticel, Epicel and Matrix Applied Characterized Autologous Cultured Chondrocytes (MACI)) to Service Recipient (the terms of the sale are memorialized in a separate Asset Purchase Agreement), including without limitation Service Provider's agreement to remain the named sponsor for the matrix applied characterized autologous cultured chondrocytes) clinical study entitled SUMMIT Extension Trial (Extension Study for Participants of Previous Study (MACI00206) of MACI Implant for the Treatment of Symptomatic Articular Cartilage Defects of the Femoral Condyle (MACI00809) (the "MACI00809 Study");

WHEREAS, as sponsor of the MACI00809 Study, Service Provider has certain legal and regulatory obligations regarding the conduct of the MACI00809 Study, and Service Provider has the obligation under the Agreement to continue to support the MACI00809 Study trials until final (5 year) database lock;

WHEREAS, Service Recipient, as the sole owner of the MACI product, is responsible for the conduct and oversight of the MACI0809 Publication Steering Committee comprised of three of the MACI0809 Investigators, and the validity and completion of the MACI00809 Study Clinical Study Report; and

WHEREAS, the Parties agree that Service Recipient should be provided a limited right to observe Service Provider's conduct of the MACI00809 Study in advance of its undertaking the MACI00809 Study Clinical Study Report at the conclusion of the study;

NOW, THEREFORE, in consideration of the above-recitals, the mutual benefits to be derived by the parties, and other good and valuable consideration, the receipt and satisfaction of which are acknowledged, Service Provider and Service Recipient agree to amend the Agreement as follows:

1. Observational Seat. Service Provider hereby invites Service Recipient's employee, Ann Remmers, Ph.D., Senior Clinical Scientist (the "Observer"), to attend, strictly in an observer role, the clinical study team status meetings for MACI00809 Study, as well as investigator meetings for MACI00809 Study. Service Recipient expressly agrees that the Observer will only observe at any meeting which the Observer attends, and will not disrupt such meetings, and that

any information learned at such meetings will be kept confidential ("Observed Information"). Service Recipient hereby agrees to enforce Observer's obligations hereunder.

2. Service Provider Contact and Support. Service Provider hereby designates Geary MacQuiddy, Associate Director, Program Management (the "Service Provider Contact") to address the Observer's reasonable questions in a commercially reasonable timely manner. Service Recipient hereby agrees to direct its reasonable questions regarding the MACI00809 Study to Service Provider Contact. Additionally, Service Provider hereby agrees to share with Service Recipient certain clinical study oversight documents for the MACI00809 Study including: Monitoring plan, Safety/Medical Monitoring plan, Sponsor Oversight plan, Data management plan, Quality plan/ Internal audit plan (including related certificates), Trial Master File plan, Operational Procedural Manual, Debarment statement and Publication Policy (collectively, the "Study Oversight Documents")

3. Confidentiality. Service Recipient agrees that the Study Oversight Documents and Observed Information constitute Service Provider Confidential Information, provided, however, that after the database lock of the MACI00809 Study, Study Oversight Documents and any Observed Information that is reduced to records transferred to Service Recipient upon the end of the MACI00809 Study shall no longer be Service Provider Confidential Information, and shall constitute Service Recipient Confidential Information.

* * *

The rights and obligations of the Parties or any dispute arising out of this Third Amendment will be interpreted, construed and enforced in accordance with the laws of the State of New York, excluding its conflict of laws rules to the extent such rules would apply the law of another jurisdiction.

This Third Amendment will terminate in accordance with the terms set forth in the Agreement.

Except as set forth in this Third Amendment, the terms of the Agreement (including but not limited to the Sections of Schedule 1 which are not amended in this Third Amendment) shall remain in full force and effect; provided however, that in the event of a conflict between a term contained in this Third Amendment and a term contained in the Agreement, the term contained in this Third Amendment shall prevail.

[Signature Page Immediately Follows.]

IN WITNESS WHEREOF, Service Provider and Service Recipient have caused this Third Amendment to the Agreement to be executed by their duly authorized representatives as of the date first above written.

GENZYME CORPORATION

Signature: /s/ Steve Couldwell

Name: Steve Couldwell

Title: General Manager Biosurgery

Date: 1 - Mar - 2015

VERICEL CORPORATION

Signature:

Name: Dominick Colangelo

Title: Chief Executive Officer

Date: 2/23/2015

FOURTH AMENDMENT TO TRANSITION SERVICES AGREEMENT

This fourth Amendment (the "Fourth Amendment"), effective as of the date last signed by both parties (the "Effective Date") is by and between Genzyme Corporation, a Massachusetts corporation ("Service Provider"), and Vericel Corporation, formerly known as Aastrom Biosciences Inc., a Michigan corporation ("Service Recipient"), (collectively, the "Parties").

WHEREAS, effective as of May 30, 2014, Service Provider and Service Recipient entered into that certain Transition Services Agreement, as amended from time to time (collectively, the "Agreement") which described transition services that Service Provider agreed to provide to Service Recipient in support of the sale of three (3) products (Carticel, Epicel and Matrix Applied Characterized Autologous Cultured Chondrocytes [MACI]) to Service Recipient (the terms of the sale are memorialized in a separate Asset Purchase Agreement);

WHEREAS, Service Recipient may contract out certain tasks in order to receive Services by Service Provider, including but not limited to the transfer of data from Service Provider to Service Recipient, and, on occasion, those contractors may assign certain responsibilities to subcontractors;

WHEREAS, the Parties acknowledge that certain of the Services require access to Service Provider systems and Service Provider Confidential Information; and

WHEREAS, the Parties wish to clarify the Parties' obligations regarding Confidential Information and to extend Service Recipient's indemnification obligation to include subcontractors;

NOW, THEREFORE, in consideration of the above-recitals, the mutual benefits to be derived by the parties, and other good and valuable consideration, the receipt and satisfaction of which are acknowledged, Service Provider and Service Recipient agree to amend the Agreement as follows:

1. Section 8.2. The first sentence of Section 8.2 is hereby stricken and replaced in its entirety by the following sentence:
   "(A) Neither the execution of this Agreement, nor performance of Services by the Service Provider and/or any of its Affiliates shall cause the Service Recipient and/or any of its Affiliates or any person or entity employed by the Service Recipient and/or any of its Affiliates or engaged by the Service Recipient and/or any of its Affiliates (a "Contractor"), or any person or entity subcontracted to by any Contractor, including Transferred Employees (collectively "Service Recipient Personnel") to be or to be construed to be an agent, employee or legal representative of the Service Provider and/or any of its Affiliates for any purpose whatsoever."

2. Section 10.1. The first sentence of Section 10.1 is hereby stricken and replaced in its entirety by the following sentence:

"Service Recipient will indemnify, defend and hold harmless Service Provider and its officers, directors, agents, employees and Affiliates, from and against any and all Damages, including reasonable attorney's fees (collectively, "Losses") arising out of, relating to or resulting from (a) Service Recipient's material breach of this Agreement, (b) Service Recipient's gross negligence or willful misconduct in connection with its receipt of the Services or Additional Services pursuant to this Agreement, (c) Service Recipient Personnel's misuse of any of Service Provider's systems or Services, (d) Service Recipient Personnel's disclosure or misuse of any of Service Provider's Confidential Information, (e) Service Recipient Personnel's willful misconduct in connection with the use of Service Provider's systems or Services or Confidential Information, or (f) Service Provider's provision of Services or Additional Services pursuant to and in accordance with this Agreement, except for those Losses for which Service Provider is obligated to indemnify, defend and hold harmless Service Recipient and its officers, directors, agents, employees and Affiliates pursuant to Section 10.2."

3. Section 10.4. The following phrase is hereby appended to the end of the only sentence in this Section:
"provided, however, that without prejudice to any rights to relief it may otherwise have, a Party may be entitled to seek equitable relief including injunction, without having to post a bond, in the event of any misuse or disclosure (except as permitted as set forth in Section 13.15) of the Party's Confidential Information by the other Party or its (as it respectively applies to the Party) Service Recipient Personnel or Service Provider Personnel."

4. Section 13.15.1. The following sentence is hereby appended to the end of Section 13.15.1:
"For purposes of clarity, without limitation, Representatives also include any Contractors and any subcontractors of Contractors, representatives, and/or agents."

* * *

The rights and obligations of the Parties or any dispute arising out of this Fourth Amendment will be interpreted, construed and enforced in accordance with the laws of the State of New York, excluding its conflict of laws rules to the extent such rules would apply the law of another jurisdiction.

This Fourth Amendment will terminate in accordance with the terms set forth in the Agreement.

Except as set forth in this Fourth Amendment, the terms of the Agreement shall remain in full force and effect; provided however, that in the event of a conflict between a term contained in this Fourth Amendment and a term contained in the Agreement, the term contained in this Fourth Amendment shall prevail.

IN WITNESS WHEREOF, Service Provider and Service Recipient have caused this Fourth Amendment to the Agreement to be executed by their duly authorized representatives as of the Effective Date.

GENZYME CORPORATION

Signature: /s/ Steve Couldwell

Name: Steve Couldwell

Title: VP Biosurgery

Date: 4 - May - 2015

VERICEL CORPORATION

Signature: /s/ Dominick Colangelo

Name: Dominick Colangelo

Title: Chief Executive Officer

Date: 4/27/15

FIFTH AMENDMENT TO TRANSITION SERVICES AGREEMENT

This Fifth Amendment (the "Fifth Amendment"), effective as of the date last signed by both parties (the "Amendment Effective Date") is by and between Genzyme Corporation, a Massachusetts corporation ("Service Provider"), and Vericel Corporation, formerly known as Aastrom Biosciences Inc., a Michigan corporation ("Service Recipient" or "Vericel") (collectively, the "Parties").

WHEREAS, effective as of May 30, 2014, Service Provider and Service Recipient entered into that certain Transition Services Agreement, as amended from time to time (collectively, the "Agreement") which described transition services that Service Provider agreed to provide to Service Recipient in support of the sale of three (3) products (Carticel®, Epicel® and Matrix Applied Characterized Autologous Cultured Chondrocytes ("MACI®"), and collectively the "Products") to Service Recipient (the terms of the sale are memorialized in a separate Asset Purchase Agreement between Sanofi, a French Société anonyme and Service Provider Affiliate ("Sanofi") and Vericel, dated as of April 19, 2014 (the "Asset Purchase Agreement"));

WHEREAS, the Agreement expired May 29, 2015;

WHEREAS, certain of the services provided by Service Provider to Service Recipient under the Agreement, including without limitation,

1) IT services related to data transfer,
2) Service Provider's agreement to remain the named sponsor until Database Lock for the MACI clinical study entitled SUMMIT Extension Trial (Extension Study for Participants of Previous Study (MACI00206) of MACI Implant for the Treatment of Symptomatic Articular Cartilage Defects of the Femoral Condyle (MACI00809) (the "MACI00809 Study"), and
3) Service Provider's continued support as United States BLA license holder for Carticel until the time that the BLA license transfer to Service Recipient with respect thereto is approved,

require additional time and support for wind-down activities;

WHEREAS, Service Provider has agreed to provide these wind-down activities services, subject to certain dependencies and limitations specified in this Fifth Amendment; and

WHEREAS, the Parties wish to clarify certain other Services and transfers of software.

NOW, THEREFORE, in consideration of the above-recitals, the mutual benefits to be derived by the Parties, and other good and valuable consideration, the receipt and satisfaction of which are acknowledged, Service Provider and Service Recipient agree to amend the Agreement as follows:

1. All capitalized terms not defined herein shall have the same meaning as set forth in the Agreement. For purposes of clarity, the Agreement in certain instances relies on definitions as set forth in the Asset Purchase Agreement, and all capitalized terms defined in neither this Fifth Amendment nor the Agreement shall have the same meaning as set forth in the Asset Purchase Agreement.

2. The Parties hereby agree that all Services performed between May 29, 2015, and the Amendment Effective Date shall be construed to have been performed pursuant to the terms and conditions of the Agreement.

3. Section 2.9, Data Hosting Services. The Parties hereby agree that the following Section 2.9, hereby appended to the Agreement, is effective retroactive to the Closing Date as defined in the Asset Purchase Agreement, and that Service Recipient's obligations of indemnification under the Agreement apply retroactively to that date.

"2.9. Data Hosting Services. As further set forth in Schedule 1, Service Provider, from time to time, may provide data hosting services to Service Recipient, consistent with the following terms:

2.9.1. Definitions. Intentionally consistent with their meanings under EU Directive 95/46/EC - The Data Protection Directive (the "EU Data Directive"), but applicable across all data covered under this Agreement, the following are defined terms:

a) "**Data Controller**" shall mean the entity which alone or jointly with others determines the purposes and means of the Processing of Personal Data.

b) "**Data Processor**" shall mean an entity which Processes Personal Data on behalf of the Data Controller.

c) "**Personal Data**" shall mean all individually directly or indirectly identifiable information created, collected or received pursuant to the Services (as defined in this Agreement) concerning notably research subjects, patients, caregivers, and health care professionals.

d) "**Processing**" shall mean any operation or set of operations which is performed upon Personal Data or Other Data, whether or not by automatic means, such as collection, recording, organization, storage, adaptation or alteration, retrieval, consultation, use, disclosure by transmission, dissemination or otherwise making available, alignment or combination, blocking, erasure or destruction.

e) "**Other Data**" shall mean all data not governed by the EU Data Directive.

2.9.2 Identification of Parties.

2.9.2.1 EU Data Directive-Governed Information. With respect to such data that is governed by the EU Data Directive, the Parties agree that upon the transfer of the EU marketing authorisation for Matrix Applied Characterized Autologous Cultured Chondrocytes ("MACI") to Service Recipient on August 26, 2014, as it relates to MACI data,

a) Service Recipient is the Data Controller under this Agreement; and
b) Service Provider is a Data Processor under this Agreement.

Service Recipient hereby warrants and represents that there were no Epicel patients subject to the EU Data Directive after the Closing Date.

2.9.2.2 Other Data. The Parties hereby acknowledge that Other Data is not subject to the EU Data Directive, but use terms herein consistent with the EU Data Directive for ease of administration in identifying roles and responsibilities. With respect to Other Data as of the Closing Date, the Parties hereby agree that,

a) Service Recipient is the Data Controller under this Agreement; and
b) Service Provider is a Data Processor under this Agreement.

2.9.3 Compliance with Applicable Data Protection Laws

a) Service Recipient agrees to comply with all applicable data protection laws and covenants not to place Service Provider in violation of applicable data protection laws. In relation to data stored on Service Provider servers since Service Recipient became Data Controller in the applicable jurisdiction, Service Recipient warrants and represents that it has and will apply the applicable data protection laws, and to Service Recipient's knowledge (in this instance, defined as known or should have known), it has not placed Service Provider in violation of applicable data protection laws.

b) Service Provider shall act only on instructions of Service Recipient with regard to the Processing of Personal Data or Other Data in accordance with the Agreement.

2.9.4 No use for unrelated purposes

Service Provider agrees that it will use Personal Data and Other Data stored by Service Recipient on Service Provider systems or servers solely for the purposes of this Agreement. Service Provider shall not duplicate or incorporate Personal Data or Other Data into its own records or databases except for purposes of performing the Processing Services under this Agreement or, in the case of Personal Data and Other Data generated prior to the Closing Date, in compliance with Service Provider's own policies related to data retention. Service Provider represents and warrants that Personal Data and Other Data has been stored and will be stored consistent with the standard by which Service Provider stores its own data.

2.9.5 WAIVER OF LIMITATION OF LIABILITY. WITH RESPECT TO THE OBLIGATIONS OF SERVICE RECIPIENT AS DATA CONTROLLER, EACH PARTY HEREBY WAIVES THE LIMITATION OF LIABILITY SET FORTH IN ARTICLE 11 OF THE AGREEMENT."

4. Section 4.1, Term. Section 4.1 is hereby stricken and replaced in its entirety by the following:

"4.1. Term. This Agreement will commence on the Effective Date and remain in effect until December 31, 2015 (the "Term"), unless earlier terminated under this ARTICLE 4.

With respect to each Service, such Service will begin upon the applicable start date set forth in the Transition Services Schedule, unless earlier terminated under this ARTICLE 4. This Agreement may be extended by the Parties in writing, either in whole or with respect to one or more of the Services."

5. Section 7.5, Crystal Reports. The following Section 7.5 is hereby appended to the end of Article 7 of the Agreement:

"Section 7.5. Crystal Reports. Service Recipient is responsible for obtaining and maintaining all relevant SAP software licenses required for its lawful use of the Crystal Reports.

7.5.1. Standard Crystal Reports. Under, and subject to, the terms of the Asset Purchase Agreement, three (3) standard Crystal Reports were transferred from Sanofi to Service Recipient, as Standalone Use licenses further subject to the SAP OEM Software Use Rights enGLOBAL.v.7-2015 EULA or its most current form (the "SAP OEM EULA") pursuant to Section 1.3.2, incorporated herein by reference. For purposes of administration only, the SAP OEM EULA as of the Amendment Effective Date may be found at http://www.sap.com.

7.5.2 Custom Crystal Reports. Service Recipient has requested access to, and Service Provider has agreed to provide such access to, six (6) customized Crystal Report IT Assets that were excluded from Transferred Assets under Section 2.1.3 of the Asset Purchase Agreement (the "Custom Crystal Reports"), as the Custom Crystal Reports were not used or held for use exclusively in the Business. As the Custom Crystal Reports were created by Service Provider for use across Service Provider's and its Affiliates' businesses, and Service Provider is not in the business of creating such Custom Crystal Reports, Service Provider hereby grants to Service Recipient a nonexclusive, revocable, nontransferable, perpetual, royalty-free, fully paid-up, worldwide license to use, reproduce, and prepare derivative works of the Custom Crystal Reports to Service Recipient subject to the SAP OEM EULA as a Standalone Use license under Section 1.3.2, and subject to the following conditions:

7.5.2.1. No Warranty. SERVICE PROVIDER MAKES NO WARRANTY OR REPRESENTATION WHATSOEVER, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR AGAINST INFRINGEMENT.

7.5.2.2. Removal of Marks. Service Recipient is not hereby granted rights to use Service Provider's or its Affiliate's Marks, including its company name. Therefore, Service Recipient hereby agrees to remove any and all Service Provider and/or Service Provider Affiliate marks from the Custom Crystal Reports prior to their use.

7.5.2.3. Revocability. This license grant is revocable in the instance where license transfer is not permitted under the SAP OEM EULA in its current form. Further, this license grant is revocable at the request of SAP or the

then-current Crystal Reports owner, or Sparta Systems, the OEM license provider to Service Provider.

6. Schedule 1. Transition Services Schedule. As of the Amendment Effective Date, all Services set forth in the Transition Services Schedule in Sections 1 through 8 shall terminate, and those Services set forth in Section 9, Wind-Down Activities Services, attached hereto and incorporated herein by reference as Attachment 1, shall commence.

7. Financial Responsibilities. The Parties acknowledge that certain financial obligations related to the Products may arise while Service Provider continues to provide Services pursuant to this Fifth Amendment. Service Recipient hereby agrees that all financial responsibilities related to the Products, except for those specifically excluded by the Agreement or the Asset Purchase Agreement, vest with Service Recipient. For purposes of example, without limitation, the 2015 PDUFA fee for Carticel is the responsibility of Service Recipient, even if the BLA license with respect thereto still rests with Service Provider at the time it is due. Notwithstanding the foregoing, Service Recipient's requirement to pay for Services pursuant to the Agreement shall extend solely to the payments set forth on Schedule 1 hereto under the heading "Billing/Fee", such payment obligations beginning effective May 30, 2015.

8. Data Extraction Cost Offset, IT Cost Offset, and 2014-2015 Assumed Liability PDUFA Fee Cost Offset.

    a. Offset to Ease Administrative Burden: To ease the administrative burden of cross-charging between the Parties, the Parties hereby agree to the following offsets, and will therefore not seek collection from the other Party as further described below (the "Offsets"):

        i. Data Extraction Costs.

            A. The Parties acknowledge that, pursuant to the Asset Purchase Agreement, costs related solely to the extraction of data related to the Assets, and specifically excluding any conversion of data and any extraction of any new data placed by Vericel on Sanofi servers or computers ("Data"), are costs to be borne by Sanofi or its Affiliates ("Data Extraction Costs"). In order to facilitate Data extraction, Service Recipient, at Service Provider's suggestion, undertook to contract with a third party vendor(s) (the "Data Extraction Vendor Agreements"), and further, Service Recipient has borne Data Extraction Costs under the Data Extraction Vendor Agreements. Service Recipient will pay for all Data Extraction Costs associated with the Data Extraction Vendor Agreements up to the amount of Two Hundred Thousand United States Dollars ($200,000.00) (the "Cap"), which is the value of the Offsets set forth in 6(a)(ii) and 6(a)(iii), below. If Data Extraction Costs under the Data Extraction Vendor Agreements should exceed the Cap, then Service Provider will reimburse Service Recipient for the Data Extraction Costs above the Cap.

            B. Notwithstanding the foregoing, Service Provider will reimburse Service Recipient up to Fifty Thousand United States Dollars ($50,000.00), for Data Extraction Costs incurred (the "Reimbursement"). Such Reimbursement is applicable to any Data Extraction Costs incurred, and will run alongside the Cap, so that, at most, Service Recipient will be responsible for covering

One Hundred Fifty Thousand United States Dollars ($150,000.00) of the Data Extraction Costs Offset.

ii. IT Costs. Service Provider, while permitted under the terms of the Agreement to charge for Services, hereby agrees to waive all fees associated with the activities set forth in Schedule 9.1.

iii. 2014-2015 Assumed Liability PDUFA Fee Costs. The Parties acknowledge that, pursuant to the Asset Purchase Agreement, all Assumed Liabilities are costs to be borne by Service Recipient, and further that the 2014-2015 PDUFA Fees for the Products and portions attributed thereof for their establishment locations (collectively, the "2014-2015 PDUFA Fees"), due in October 2014, are Assumed Liabilities. Service Provider paid the 2014-2015 PDUFA Fees, and hereby agrees not to seek reimbursement due under the Asset Purchase Agreement from Service Recipient.

b. No Admission of Liability. The Parties acknowledge that the Offsets are agreed upon to ease administrative burden only, and that the Offsets are not, and may not be construed as, an admission of liability by either Party or their respective Affiliates and is not to be construed as an admission that either Party or their respective Affiliates engaged in any wrongful, tortious or unlawful activity. The Parties specifically disclaim and deny (a) any liability to the other Party or their respective Affiliates and (b) engaging in any wrongful, tortious or unlawful activity

9. Miscellaneous. The Parties acknowledge that, as set forth in Section 7.22 of the Asset Purchase Agreement, all transition services were to end by May 29, 2015. Service Provider hereby confirms that Service Provider has received approval from its Affiliate to continue certain transition services beyond May 29, 2015. The Parties hereby agree that, notwithstanding the term limit to the transition services set forth in Section 7.22 of the Asset Purchase Agreement, the Services will be extended as set forth in this Fifth Amendment.

* * *

The rights and obligations of the Parties or any dispute arising out of this Fifth Amendment will be interpreted, construed and enforced in accordance with the laws of the State of New York, excluding its conflict of laws rules to the extent such rules would apply the law of another jurisdiction.

This Fifth Amendment will terminate in accordance with the terms set forth in the Agreement.

Except as set forth in this Fifth Amendment, the terms of the Agreement shall remain in full force and effect; provided however, that in the event of a conflict between a term contained in this Fifth Amendment and a term contained in the Agreement, the term contained in this Fifth Amendment shall prevail. The Agreement, as amended, together with the Asset Purchase Agreement and the other Ancillary Agreements, constitutes the entire agreement between and among the Parties with regard to the subject matter of this Agreement, and supersedes all prior agreements and understandings with regard to such subject matter. Except for the Confidentiality Agreement, there are now no agreements, representations or warranties between or among the Parties other than those set forth in the Agreement, the Asset Purchase Agreement or the Ancillary Agreements.

IN WITNESS WHEREOF, Service Provider and Service Recipient have caused this Fifth Amendment to the Agreement to be executed by their duly authorized representatives as of the Amendment Effective Date.

GENZYME CORPORATION	VERICEL CORPORATION
Signature:_____	Signature:_____
Name:_____	Name:_____
Title:_____	Title:_____
Date:_____	Date:_____

Attachment 1

SCHEDULE 1

Transition Services Schedule

Section 9: Wind-Down Activities Services

Section 9.1
IT Services and Systems Access

1 Without prejudice to Section 8.3 of this Agreement, the Service Provider will provide to the Service Recipient support only with respect to the Transferred Employees and new employees that are replacing Transferred Employees or who otherwise require support as reasonably requested by Service Recipient. Exception: Local Network Connectivity, global network connectivity, and internet connectivity will be provided to employees of the Service Recipient who require such access.

2 The Service Provider has the responsibility to provide the Service Recipient with administrative access to Service Recipient-owned IT assets (computers, servers, laptops, desktops, etc.), or infrastructure (firewalls, routers, switches, etc.) only if they are physically located within one of the transferred offices and are dedicated to the exclusive use by the Business, provided however that while any such computers and/or infrastructure are still connected to the Service Provider's network and until they are segregated in full, any changes to workstation and/or infrastructure configuration must be reviewed and approved in advance by the appropriate Service Provider personnel.

3 Administrative access will not be provided to any shared (i.e., only partially dedicated to the use by the Business) servers, infrastructure, or any other devices, which are not Transferred Assets (this includes, without limitation, routers, shared file and print servers, etc.).

4 Service Provider reserves the right to upgrade, replace, or discontinue individual services as part of Service Provider's ongoing and regular business operations. Service Recipient will be provided notice of Service Provider's intent to change or discontinue any IT service as soon as practicable once such plans are revealed to the Service Provider Manager. In any event, commercially reasonable efforts will be made to avoid or minimize impact to Service Recipient's ongoing business operations and Service Provider will provide Service Recipient with reasonable notice of any changes.

5 Without prejudice to section 8.3 of this Agreement, nothing in this Transition Services Schedule shall oblige the Service Provider to provide access to the Service Recipient and/or any of the Service Recipient Personnel to any information services systems and/or applications other than those listed in Schedule 9.1.

9.1.1 Services

#	Function	Region	Title	Services	Term Date	Billing/ Fee
1	IT: GIS	US/	GIS General Services	Service Provider to provide the following to Service Recipient: • Core Security Service – monitor and assist in resolving any Security threats and risks (perimeter, virus, spam)	December 31, 2015	N/A
2	IT: GIS	US/	GIS Network Services	Service Provider to provide the following services to Service Recipient: • Global Network Connectivity (WAN) – maintain WAN circuit operations, escalate circuit issues to Telco and troubleshoot to resolution. Monitor WAN availability and performance. Local Network Connectivity (LAN) – monitor and troubleshoot to ensure availability and performance. • Remote Access Service – maintain operation of WebVPN or other applicable user remote access solutions. • Internet Connectivity – maintain operation of common Internet access for business needs of Cell Therapy users during service transition to Service Recipient's infrastructure. i) Cambridge Site	December 31, 2015	N/A
3	IT: GIS	US/	GIS Server Operations Services	Service Provider to provide the following services to Service Recipient at sites other than the transferred sites: • Housing Service (Data Center operations): monitoring of DC environment, availability and adequate performance. • Server Service – For existing servers: monitor for availability and performance, apply critical OS patches and fixes. Note, no additional servers will be provided by this service during the TSA period.	December 31, 2015	N/A

#	Function	Region	Title	Services	Term (Months)	Billing/ Fee
4	IT: GIS	US/	GIS User Services	Service Provider will provide the following services to Service Recipient: • Enterprise Computer service, Electronic Software Distribution – apply critical desktop OS patches and fixes as appropriate, maintain operation of desktop anti-virus infrastructure. • Service Desk – provide end user support, liaise with other Service Provider and/or Service Recipient support groups to assist in resolving user issues. • Enterprise Directory Service, Network Access Service (User Account Operations) – maintain operation of Active Directory infrastructure and provide support for end-user accounts (setup, troubleshoot, administer) for former Service Provider personnel. • Workspace Solution service (File & Print Services) – maintain operation of general File Share and common Printing infrastructure, including setup, troubleshooting, and administration, for former Service Provider personnel • The Parties will use commercially reasonable efforts to transfer or otherwise resolve PC leases	December 31, 2015	N/A
5	IT	EU/US	MFGPro, NEXTs, Catalyst and SAP	Service Provider will provide the following services to Service Recipient – AS PER SPECIFICALLY IDENTIFIED IN SECTION 9.1.2 below• Enable users to access MFGPro, Catalyst, Next and SAP application/s (includes WQR Reflections – terminal emulation), by setting up users accounts, and enabling connectivity.	See 9.1.2 below	N/A

6	IT	EU/US	Application	Service Provider will provide the following services to Service Recipient AS PER SECTION 9.1.2 below • If Service Recipient employees (not former Service Provider employees) require access to the systems they will be granted access as contractors, and Service Recipient will be responsible for formal background checks and any training required Service Recipient	See 9.1.2 below	N/A
7	IT	US & EU	Promotional material review eRC	Service Provider will facilitate necessary interactions with the process-related applications on behalf of Service Recipient.	See 9.3, #1 below	N/A

9.1.2 Systems Access

#	Department	System	Employees that need continued access after June 1, 2015	Term Date	Rationale	Billing/Fee
1	Quality Assurance	Trackwise	All Sidney Street users	December 31, 2015	Complete transfer of all CTRM data and workflows from Sanofi to Vericel	N/A
2	Quality Assurance	ROBAR	Philip Carpenter Amanda Lambirth Elizabeth Foley David Futterer Gen AppRem Test26 GenzymeAppTest10 James George Kyle Giroux Jesus Guerrero Elmer Lemus Joan Lessor Lan Luong Laurie McQueen Josephine Johansen Lauren Ann Peterson ROBAR Default User Ezequiel Soc Melissa Sukernick Adrian Todor Chad Worthley Yan Ming Yuan Carmen Zvinca	December 31, 2015	Ongoing need to print labels until ROBAR system can be transferred and validated	N/A
3	Quality Assurance	BarTender (Seagull Scientific) - linked with ROBAR	(See above list)	December 31, 2015	Linked with ROBAR	N/A
4	Finance	Catalyst	Harvey Maki	December 31, 2015	Ongoing analysis of vendor payments for Vericel business	N/A
5	Finance	NEXTs	Harvey Maki	December 31, 2015	Ongoing analysis of vendor payments for Vericel business	N/A
6	Finance	MFG\PRO and SAP	Harvey Maki	December 31, 2015	Ongoing analysis of customer billing and cash receipts. Some customers have 90 day payment terms and will likely remit cash to a Genzyme lockbox for May invoices through July of this year.	N/A
7	Manufacturing	SQL Epicel Patient Information Database	Melvin Posada	December 31, 2015	Ongoing use of Epicel Patient Information Database until system can be transferred and validated	N/A

8	Engineering	Continuum BMS	Joe Romano Tom Harmon	December 31, 2015	Ongoing need for BMS until system transfer and validation is complete	N/A
9	Materials Management	MFG\PRO and SAP	Brian Dunderdale Kristen Appleman Alex Erneste Sze Chen Nancy Minghella Melvin Pasata David Conrad Abdell Omalek Fernando Davalos	December 31, 2015	Open POs and Raw Material Receipts and Transfers	N/A
10	Quality Assurance Quality Control	MFG\PRO and SAP	Marianne Pongratz Melissa Sukernick Kyle Giroux Chad Worthley James George Carmen Zvinca Lauren Peterson Elizabeth Foley Josephine Johansen Adrian Todor Ed Fasano Matt Stevens Rob Manzella Sam Prinzi Jason Greenberg	December 31, 2015	Used on daily basis to release product - one person from each shift requires access	N/A
11	Customer Care	SAP	Tim McKeen Jennifer Fisher James Bonasoro Chad Matthes Connie Correia Sydney Laguerre	December 31, 2015	Open Sales Orders and Credits	N/A
12	Quality Assurance	Catsweb	Cindy Entstrasser Melissa Sukernick Alex Ernesti	December 31, 2015	Complete CTRM Adverse Event data transfers	N/A
13	Network	VPN: 64 - AA	All Sidney Street users	December 31, 2015	Maintain VPN connectivity between 64 Sidney St and AA	N/A
14	Quality Assurance Clinical	LiveLink	Josh Hodgson Ann Remmers	December 31, 2015	Extract remaining necessary data	N/A

9.1.3 Email Services

Service Provider will continue to provide email services for to Service Recipient employees identified above in Section 9.1.2 solely for notifications for essential applications, including Trackwise (Line #1) and Catalyst (Line #4). The email services will terminate, respectively, on the system termination dates listed in Section 9.1.2.

Section 9.2

REGULATORY and PHARMACOVIGILANCE ACTIVITIES FOR MACI00809 STUDY

The Parties hereby agree that time is of the essence to transfer sponsorship of the MACI00809 Study from Service Provider to Service Recipient, with an effective transfer date of August 24, 2015, as declared in the submission to the relevant Competent Authorities/ Ethics Committees) (the "Target Transfer Date").

Service Provider and Service Recipient will make best efforts to maintain this Target Transfer Date by anticipating submissions to CA/EC. In the event that the Target Transfer Date transfer is not achieved, Service Provider, at is sole discretion after consultation with Service Recipient, will inform the Competent Authorities/Ethics Committees of a new target transfer date, and Service Provider and Service Recipient will use best efforts to achieve the new target transfer date.

Service Provider agrees to perform limited wind-down activities as set forth below.

#	Function	Region	Title	TSA Scope	Termination Date	Billing/Fee
1	Regulatory	EU	Submission to the Health Authorities to change Sponsorship of MACI00809 Study	Service Provider (but in the case of Poland and the Czech Republic, Service Recipient) will make appropriate submissions to the competent authorities and ethics committees in the affected jurisdictions to transfer sponsorship of the MACI00809 Study from Service Provider to Service Recipient. Service Recipient will comply with Service Provider's reasonable requests for assistance in a timely manner.	Until the earlier of Service Recipient becoming sponsor of the MACI00809 Study in each affected jurisdiction or November 1, 2015.	Service Recipient and Service Provider will each pay for half of any fees associated with these submissions. Notwithstanding the foregoing Service Recipient will compensate Service Provider for all costs incurred by Service Provider, including personnel costs, for such Services after September 15, 2015.

2	Regulatory / Safety	EU	QPPV Role for MACI00809 STUDY	Service Provider will provide a qualified person to act as QPPV for the MACI00809 Study	Until the earlier of Service Recipient becoming sponsor of the MACI00809 Study in each affected jurisdiction or November 1, 2015.	Service Recipient will pay for QPPV for the MACI00809 Study

3	Regulatory / Safety	EU	Safety Requirements	Service Provider will provide the following support to Service Recipient, with Service Recipient's assistance as noted below: • Service Provider will provide Safety monitoring of MACI00809 Study for as long as Service Provider or its affiliates remains the sponsor of the study including: submitting individual case safety reports to the competent health authorities, as appropriate • Service Recipient will prepare the 2015 DSUR for submission in a timely manner. Service Provider will provide any supportive data not previously transferred for the authoring / compilation of the Development Safety Update Report and / or Semi-Annual Safety Report (due for submission August 26, 2015 and July 27, 2015, respectively) to Service Recipient (patient exposure, actions taken for safety reasons, significant safety findings, listings of deaths, etc.). o In the event that sponsorship does not transfer from Service Provider to Service Recipient by the time the DSUR must be submitted, Service Provider will submit the DSUR that Service Recipient has prepared. Accordingly, during the preparation of the DSUR, Service Provider will be given opportunity as further set forth in the agreed upon DSUR Submission Timeline document, incorporated herein by reference, to review and comment on the DSUR and such comments shall be duly considered for inclusion in the report. o In the event that the Target Transfer Date is not achieved and therefore Service Provider must submit the DSUR that Service Recipient has prepared, the Service Provider must approve the final DSUR prior to submission. The Parties agree to collaborate together to ensure that this report is submitted to appropriate Health Authorities on or before August 26, 2015. • Service Provider will provide pharmacovigilance Source Document Retention	Until the earlier of Service Recipient becoming sponsor of the MACI00809 Study in each affected jurisdiction or November 1, 2015.	Notwithstanding anything to the contrary in this Agreement, Service Recipient, as party responsible for drafting the 2015 DSUR, will pay for all costs associated with drafting such DSUR. Service Recipient will pay for all reasonable and documented filing fees incurred by Service Provider to submit the 2015 DSUR in the event that Service Provider must submit the DSUR due to timing constraints re: sponsorship transfer vs DSUR submission due date (26Aug2015) Notwithstanding the foregoing, Service Recipient will compensate Service Provider for all costs incurred by Service Provider, including personnel costs, for such Services after September 15, 2015.

4	Regulatory / Safety	EU	Residual Documentation	• Service Provider will and will cause its affiliates to provide residual documentation related to the MACI00809 Study or its transfer, if any, including, without limitation, documentation for the trial master file to Service Recipient.	Upon the Service Recipient becoming sponsor of the MACI00809 Study in each affected jurisdiction	N/A

SECTION 9.3
MEDICAL AFFAIRS AND MEDICAL INFORMATION ACTIVITIES FOR MACI00809 STUDY and US CARTICEL PROMOTIONAL REVIEW

The Parties hereby agree that time is of the essence to transfer sponsorship of the MACI00809 Study from Service Provider to Service Recipient, with an effective transfer date as of the Target Transfer Date and as further described on Schedule 9.2.

#	Function	Region	Title	Services	Termination Date	Billing/ Fee
1	Promotional Review Process	US	Promotional material review ERC/ePME/ 4M	Service Provider will have final approval authority of promotional materials and medical communications following Service Recipient review until license transfer	Upon Service Recipient becoming BLA license holder with respect thereto for Carticel	N/A
2	Clinical, Medical Affairs, Program Management	US and EU	MACI00809 Study	The Parties will use best efforts to effect the transfer of sponsorship in each affected jurisdiction from Service Provider to Service Recipient in a timely manner. Both Parties will take appropriate action regarding the sponsorship change, including, without limitation, for purposes of example only, Service Recipient is responsible for contacting the competent health authority in Poland regarding Service Recipient's assumption of sponsorship for the MACI00809 Study. Service Provider or its affiliates will remain the sponsor for all site Clinical Trial Agreements and vendor contracts in support of the MACI00809 Study, until effective and legal assignment of such contracts has been made to Service Recipient, which Service Provider shall undertake upon request of Service Recipient on a case-by-case basis (the "Assignment"), provided, however, that the CRO agreement with Covance will not be assigned to Service Recipient, Service Provider shall use its commercially reasonable efforts to effect such Assignment. If the Parties agree that no assignment is necessary in the case of a contract, then Service Provider's obligation to remain sponsor for purposes of that contract shall terminate upon the transfer of sponsorship to Service Recipient. Service Provider hereby agrees to oversee site closure activities. Service Recipient will accept in a timely manner, according to mutually agreed upon, reasonable contractual terms, to the assignment of any agreement necessary to effect the transfer of sponsorship. Service Recipient and Service Provider will use commercially reasonable efforts to ensure the timely transfer of the TMF by the Target Transfer Date.	Until the earlier of Service Recipient becoming sponsor of the MACI00809 Study in each affected jurisdiction or November 1, 2015.	Service Provider will pay final site closure payments and the cost of site closure activities Submission fees will be paid as set forth in Section 9.2 (1) Notwithstanding the foregoing, Service Recipient will compensate Service Provider for all costs incurred by Service Provider, including personnel costs, for such Services after September 15, 2015.

SIXTH AMENDMENT TO TRANSITION SERVICES AGREEMENT

This Sixth Amendment (the "Sixth Amendment"), effective as of the date last signed by both parties (the "Amendment Effective Date") is by and between Genzyme Corporation, a Massachusetts corporation ("Service Provider"), and Vericel Corporation, formerly known as Aastrom Biosciences Inc., a Michigan corporation ("Service Recipient" or "Vericel") (collectively, the "Parties").

WHEREAS, effective as of May 30, 2014, Service Provider and Service Recipient entered into that certain Transition Services Agreement, as amended from time to time (collectively, the "Agreement") which described transition services that Service Provider agreed to provide to Service Recipient in support of the sale of three (3) products (Carticel®, Epicel® and Matrix Applied Characterized Autologous Cultured Chondrocytes ("MACI®"), and collectively the "Products") to Service Recipient (the terms of the sale are memorialized in a separate Asset Purchase Agreement between Sanofi, a French Société anonyme and Service Provider Affiliate ("Sanofi") and Vericel, dated as of April 19, 2014 (the "Asset Purchase Agreement"));

WHEREAS, the Agreement will expire on December 31, 2015;

WHEREAS, certain of the services provided by Service Provider to Service Recipient under the Agreement, including without limitation,

1) IT services related to data transfer,
2) Data Controller and data hosting services until such time as data controller responsibility may be legally transferred, and
3) Transferred Intellectual Property missing residual documentation,

require additional time and support for wind-down activities; and

WHEREAS, Service Provider has agreed to provide these wind-down activities services, subject to certain dependencies and limitations specified in this Sixth Amendment; and

NOW, THEREFORE, in consideration of the above-recitals, the mutual benefits to be derived by the Parties, and other good and valuable consideration, the receipt and satisfaction of which are acknowledged, Service Provider and Service Recipient agree to amend the Agreement as follows:

1. All capitalized terms not defined herein shall have the same meaning as set forth in the Agreement. For purposes of clarity, the Agreement in certain instances relies on definitions as set forth in the Asset Purchase Agreement, and all capitalized terms defined in neither this Sixth Amendment nor the Agreement shall have the same meaning as set forth in the Asset Purchase Agreement.

2. Section 2.9, Data Hosting Services. Sections 2.9.2 and 2.9.3 of the Agreement are hereby stricken and replaced by the following Sections 2.9.2 and 2.9.3:

"

1. Identification of Parties.

EU Data Directive-Governed Information. With respect to such data that is governed by the EU Data Directive, the Parties agree: that upon the transfer of the EU marketing authorisation for Matrix Applied Characterized Autologous Cultured

Chondrocytes (“MACI”) to Service Recipient on August 26, 2014 (“MAH Transfer Date”), as it relates to MACI data, subject to clause 2.9.2.1.2 below,

a) Service Recipient is the Data Controller under this Agreement for data generated on or after the MAH Transfer Date (the “Post-MAH Transfer Data”); and
b) Service Provider is a Data Processor under this Agreement for the Post-MAH Transfer Data.

Service Recipient hereby warrants and represents that there were no Epicel patients subject to the EU Data Directive after the Closing Date.

For all data generated before the MAH Transfer Date, Service Provider or its Affiliate is and shall remain the Data Controller until such time as it may legally transfer Data Controller status to Service Recipient.

Other Data. The Parties hereby acknowledge that Other Data is not subject to the EU Data Directive, but use terms herein consistent with the EU Data Directive for ease of administration in identifying roles and responsibilities. With respect to Other Data as of the Closing Date, the Parties hereby agree that,

a) Service Recipient is the Data Controller under this Agreement; and
b) Service Provider is a Data Processor under this Agreement.

2. Compliance with Applicable Data Protection Laws

a) Service Recipient agrees to comply with all applicable data protection laws and covenants not to place Service Provider in violation of applicable data protection laws. In relation to data stored on Service Provider servers since Service Recipient became Data Controller in the applicable jurisdiction, Service Recipient warrants and represents that it has and will apply the applicable data protection laws, and to Service Recipient’s knowledge (in this instance, defined as known or reasonably should have known), it has not placed Service Provider in violation of applicable data protection laws.

b) With respect to the data for which Service Provider is the Data Processor, Service Provider shall act only on instructions of Service Recipient with regard to the Processing of Personal Data or Other Data in accordance with the Agreement. Service Provider shall cause its Affiliates to act only on such instructions from Service Provider (after it has received such instructions from Service Recipient) and/or directly from Service Recipient.

c) With respect to the data for which Service Provider or its Affiliate is the Data Controller, Service Provider or its Affiliate will use commercially reasonable efforts to seek the transfer of Data Controller status to Service Recipient. The Parties hereby acknowledge and agree that transfer of Data Controller status may occur on a rolling basis, depending on the nature of the information that is the subject of the transfer.

d) At the time of transfer of Data Controller status for particular controlled information, Service Provider will become the Data Processor for such transferred information until the expiration or termination of this Agreement.

e) The Parties hereby agree that if the Parties or, in the case of Service Provider, its Affiliate, enter into a European Commission "Commission Decision C(2010)593 Standard Contractual Clauses (processors)" agreement for the transfer of data (hereinafter, a "Data Export Agreement"), then in the event of any conflict between the provisions set forth in Section 2.9 of this Agreement and the provisions of the Data Export Agreement, the provisions of the Data Export Agreement shall control, provided however that Subsection 2.9.5 of this Agreement shall control with respect to issues concerning limitation of liability."

3. Section 4.1, Term. Section 4.1 is hereby stricken and replaced in its entirety by the following:

"4.1. Term. This Agreement will commence on the Effective Date and remain in effect until June 30, 2016 (the "Term"), unless earlier terminated under this ARTICLE 4. With respect to each Service, such Service will begin upon the applicable start date set forth in the Transition Services Schedule, unless earlier terminated under this ARTICLE 4. This Agreement may be extended by the Parties in writing, either in whole or with respect to one or more of the Services."

4. Section 13.2, Inspection Rights. The following is hereby appended to the end of Section 13.2:

"Notwithstanding the foregoing, during the Term, with respect to the data for which Service Provider or its Affiliate is Data Controller at the time of the request, upon notice, Service Provider agrees to allow Service Recipient to view such data to fulfil regulatory reporting or audit obligations; provided, that Service Recipient shall comply with Service Provider's reasonable security and safety procedures as such procedures are communicated to Service Recipient and that Service Provider has the right to attend and control the scope of the audit to ensure the audit is limited to data for which Service Provider or its Affiliate is Data Controller."

5. Schedule 1. Transition Services Schedule. As of the Amendment Effective Date, all Services set forth in the Transition Services Schedule in Section 9 shall terminate, and those Services set forth in Section 10, Wind-Down Activities Services, attached hereto and incorporated herein by reference as Attachment 1, shall commence.

6. Miscellaneous. The Parties acknowledge that, as set forth in Section 7.22 of the Asset Purchase Agreement, all transition services were to end by May 29, 2015. Service Provider hereby confirms that Service Provider has received approval from its Affiliate to continue certain transition services beyond May 29, 2015. The Parties hereby agree that, notwithstanding the term limit to the transition services set forth in Section 7.22 of the Asset Purchase Agreement, the Services will be extended as set forth in this Sixth Amendment.

* * *

The rights and obligations of the Parties or any dispute arising out of this Sixth Amendment will be interpreted, construed and enforced in accordance with the laws of the State of New York, excluding its conflict of laws rules to the extent such rules would apply the law of another jurisdiction.

This Sixth Amendment will terminate in accordance with the terms set forth in the Agreement.

Except as set forth in this Sixth Amendment, the terms of the Agreement shall remain in full force and effect; provided however, that in the event of a conflict between a term contained in this Sixth Amendment and a term contained in the Agreement, the term contained in this Sixth Amendment shall prevail. The Agreement, as amended, together with the Asset Purchase Agreement and the other Ancillary Agreements, constitutes the entire agreement between and among the Parties with regard to the subject matter of this Agreement, and supersedes all prior agreements and understandings with regard to such subject matter. Except for the Confidentiality Agreement and SDEA, there are now no agreements, representations or warranties between or among the Parties other than those set forth in the Agreement, the Asset Purchase Agreement or the Ancillary Agreements.

IN WITNESS WHEREOF, Service Provider and Service Recipient have caused this Sixth Amendment to the Agreement to be executed by their duly authorized representatives as of the Amendment Effective Date.

GENZYME CORPORATION	VERICEL CORPORATION
Signature:	Signature:
Name:	Name:
Title:	Title:
Date:	Date:

Attachment 1

SCHEDULE 1

Transition Services Schedule

Section 10: Wind-Down Activities Services

Section 10.1
IT Services and Systems Access

1 Without prejudice to Section 8.3 of this Agreement, the Service Provider will provide to the Service Recipient support only with respect to the Transferred Employees and new employees that are replacing Transferred Employees or who otherwise require support as reasonably requested by Service Recipient. Exception: Local Network Connectivity, global network connectivity, and internet connectivity will be provided to employees of the Service Recipient who require such access.

2 The Service Provider has the responsibility to provide the Service Recipient with administrative access to Service Recipient-owned IT assets (computers, servers, laptops, desktops, etc.), or infrastructure (firewalls, routers, switches, etc.) only if they are physically located within one of the transferred offices and are dedicated to the exclusive use by the Business, provided however that while any such computers and/or infrastructure are still connected to the Service Provider's network and until they are segregated in full, any changes to workstation and/or infrastructure configuration must be reviewed and approved in advance by the appropriate Service Provider personnel.

3 Administrative access will not be provided to any shared (i.e., only partially dedicated to the use by the Business) servers, infrastructure, or any other devices, which are not Transferred Assets (this includes, without limitation, routers, shared file and print servers, etc.).

4 Service Provider reserves the right to upgrade, replace, or discontinue individual services as part of Service Provider's ongoing and regular business operations. Service Recipient will be provided notice of Service Provider's intent to change or discontinue any IT service as soon as practicable once such plans are revealed to the Service Provider Manager. In any event, commercially reasonable efforts will be made to avoid or minimize impact to Service Recipient's ongoing business operations and Service Provider will provide Service Recipient with reasonable notice of any changes.

5 Without prejudice to section 8.3 of this Agreement, nothing in this Transition Services Schedule shall oblige the Service Provider to provide access to the Service Recipient and/or any of the Service Recipient Personnel to any information services systems and/or applications other than those listed in Schedule 10.1.

6 The term date for each of the Services and Systems Access set forth in this Schedule 10.1 is the earlier of the end of need for the Services as controlled by Service Providers' ability to legally transfer data related to a specific system or June 30, 2016. In the event that such data cannot be transferred to Service Recipient, Service Provider and Service Recipient will agree to extend this Agreement as it relates to the Data Hosting Services set forth in Section 2.9 and

companion IT requirements set forth in this Schedule 10.1, and determine a process for Service Recipient to continue to have access to such data.

7 There are no charges associated with the Services or Systems Access set forth in this Schedule 10.1.

10.1.1 Services

#	Function	Region	Title	Services
1	IT: GIS	US/	GIS General Services	Service Provider to provide the following to Service Recipient: Core Security Service - monitor and assist in resolving any Security threats and risks (perimeter, virus, spam)
2	IT: GIS	US/	GIS Network Services	Service Provider to provide the following services to Service Recipient: Global Network Connectivity (WAN) - maintain WAN circuit operations, escalate circuit issues to Telco and troubleshoot to resolution. Monitor WAN availability and performance. Local Network Connectivity (LAN) - monitor and troubleshoot to ensure availability and performance. Remote Access Service - maintain operation of WebVPN or other applicable user remote access solutions. Internet Connectivity - maintain operation of common Internet access for business needs of Cell Therapy users during service transition to Service Recipient's infrastructure. i)Cambridge Site
3	IT: GIS	US/	GIS Server Operations Services	Service Provider to provide the following services to Service Recipient at sites other than the transferred sites: Housing Service (Data Center operations): monitoring of DC environment, availability and adequate performance. Server Service - For existing servers: monitor for availability and performance, apply critical OS patches and fixes. Note, no additional servers will be provided by this service during the TSA period.

[*Continued next page*]

#	Function	Region	Title	Services
4	IT: GIS	US/	GIS User Services	Service Provider will provide the following services to Service Recipient: Enterprise Computer service, Electronic Software Distribution - apply critical desktop OS patches and fixes as appropriate, maintain operation of desktop anti-virus infrastructure. Service Desk - provide end user support, liaise with other Service Provider and/or Service Recipient support groups to assist in resolving user issues. Enterprise Directory Service, Network Access Service (User Account Operations) - maintain operation of Active Directory infrastructure and provide support for end-user accounts (setup, troubleshoot, administer) for former Service Provider personnel. Workspace Solution service (File & Print Services) - maintain operation of general File Share and common Printing infrastructure, including setup, troubleshooting, and administration, for former Service Provider personnel The Parties will use commercially reasonable efforts to transfer or otherwise resolve PC leases
5	IT	EU/US	Application	Service Provider will provide the following services to Service Recipient AS PER SECTION 10.1.2 below If Service Recipient employees (not former Service Provider employees) require access to the systems they will be granted access as contractors, and Service Recipient will be responsible for formal background checks and any training required Service Recipient

10.1.2 Systems Access

#	Department	System	Employees that need continued access after June 1, 2015	Rationale
1	Quality Assurance	Trackwise	All Sidney Street users	Complete transfer of all CTRM data and workflows from Sanofi to Vericel
2	Manufacturing	SQL Epicel Patient Information Database	Melvin Posada	Ongoing use of Epicel Patient Information Database until system can be transferred and validated
3	Engineering	Continuum BMS	Joe Romano Tom Harmon	Ongoing need for BMS until system transfer and validation is complete
4	Materials Management	MFG\PRO and SAP	Brian Dunderdale Kristen Appleman Alex Ernesti Sze Chan Nancy Minghella Melvin Posada David Conrad Abdell Omalek Fernando Davalos	Open POs and Raw Material Receipts and Transfers
5	Quality Assurance Quality Control	MFG\PRO and SAP	Melissa Sukernick Kyle Giroux Chad Worthley James George Carmen Zvinca Lauren Peterson Elizabeth Foley Josephine Johansen Adrian Todor Ed Fasano Matt Stevens Rob Manzella Sam Prinzi Jason Greenberg	Used on daily basis to release product - one person from each shift requires access
6	Customer Care	SAP	Tim McKeen Jennifer Fisher James Bonasoro Chad Matthes Connie Correia Sydney Laguerre	Open Sales Orders and Credits
7	Quality Assurance	Catsweb	Cindy Entstrasser Melissa Sukernick Alex Ernesti	Complete CTRM Adverse Event data transfers
8	Network	VPN: 64 - AA	All Sidney Street users	Maintain VPN connectivity between 64 Sidney St and AA
9	Quality Assurance Clinical	LiveLink	Josh Hodgson Ann Remmers	Extract remaining necessary data

10.1.3 Email Services

Service Provider will continue to provide email services for to Service Recipient employees identified above in Section 10.1.2 solely for notifications for essential applications, including Trackwise (Line #1). The email services will terminate on the system termination.

Section 10.2

REGULATORY and PHARMACOVIGILANCE ACTIVITIES

Subject to Section 2.8 of this Agreement, Service Provider will use commercially reasonable efforts to facilitate the timely provision of Transferred Intellectual Property residual documentation ("Residual Documentation"), as further set forth below:

#	Function	Region	Title	TSA Scope	Termination Date	Billing/Fee
1	Regulatory / Safety	EU	Residual Documentation	Upon notification of missing Residual Documentation by Service Recipient, the prerequisite for such notice being Service Recipient's own due diligence in reviewing the data and files to which Service Recipient has access at the time of the request, Service Provider will coordinate the provision of Residual Documentation to Service Recipient related to: the MACI00809 and MACI00206 Studies or their transfer, if any, including, without limitation, documentation for the trial master files; and MACI nonclinical studies, including, without limitation, the nonclinical pharmacology study GENZ 06-0239 (6 month horse study of MACI).	June 30, 2016	N/A

Exhibit 10.47

TRANSITION SUPPLY AGREEMENT

This Transition Supply Agreement (this "**Agreement**") is dated as of May 30, 2014 (the "**Effective Date**"), by and between **GENZYME CORPORATION**, a Massachusetts corporation ("**GENZYME**"), and **AASTROM BIOSCIENCES, INC.,** a Michigan corporation ("**AASTROM**"). Genzyme and Aastrom are referred to in this Agreement each as a "Party" and collectively as the "Parties."

PREAMBLE AND BACKGROUND

Sanofi, a French Société Anonyme ("**Sanofi**"), as the seller, and AASTROM, as the buyer, have entered into an Asset Purchase Agreement on April 19, 2014 (the "**APA**"), whereby AASTROM has purchased from Sanofi substantially all of the assets constituting the Business (as such term is defined in the APA) under the terms and conditions set forth in the APA; and

Pursuant to the APA, the Sanofi and AASTROM have agreed to enter into a certain number of transitional agreements, including this Agreement, whereby Sanofi, either directly, through one of its Affiliates, or through a third party shall provide to AASTROM, for a limited period of time from the Closing Date (as such term is defined in the APA), certain raw materials necessary for the Business as such raw materials that are listed in Exhibit 1 (hereafter, such raw materials manufactured by GENZYME, the "**Genzyme Raw Materials**", such raw materials manufactured by third parties, the "**Third Party Raw Materials**" and, collectively, the "**Raw Materials**").

Capitalized terms used and not otherwise defined herein shall have the meanings set forth in the APA.

Now, therefore, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties agree as follows:

ARTICLE 1 - SCOPE OF THE AGREEMENT

For the duration of the Agreement, GENZYME undertakes to supply AASTROM with the Raw Materials as so requested by AASTROM and AASTROM undertakes to purchase from GENZYME its requirements of Raw Materials as determined in AASTROM'S sole discretion, subject to the terms and conditions herein set forth.

ARTICLE 2 - SUPPLY

The Genzyme Raw Materials delivered hereunder shall be manufactured in accordance with the applicable current Guidelines of Good Manufacturing Practices for Drugs ("cGMP") and other applicable health authority regulations for therapeutic products as applicable to the Genzyme

Raw Materials. At the time of delivery to AASTROM by Genzyme, the Genzyme Raw Materials shall have a shelf life of at least the time period specified for such Raw Material on Exhibit 1.

ARTICLE 3 - FORECASTS - ORDERS

3.1 Forecasts

In order to enable GENZYME to regularly supply AASTROM with Raw Materials, AASTROM shall, before the fifth (5th) day of each month, provide GENZYME with a rolling forecast of its needs of Raw Materials for the following six (6) months, or until the end of the Term (defined below), broken down by calendar month. The first three (3) months of the forecast shall be binding.

3.2 Orders of Genzyme Raw Materials

AASTROM will order Genzyme Raw Materials directly from GENZYME. AASTROM will order such quantities of Genzyme Raw Materials to be supplied by GENZYME no less than three (3) months before the delivery date specified by AASTROM if such quantities are included in the rolling forecast.

3.3 Orders of Third Party Raw Materials

To the extent permitted under GENZYME's agreements with the third party manufacturers, AASTROM will order Third Party Raw Materials directly from such third party, with such orders to be delivered to the GENZYME warehouse facility. Upon delivery, GENZYME will record the receipt of such orders via the MFGPro platform. Upon recording the receipt of such orders, AASTROM will have forty-five (45) business days to inspect the Third Party Raw Materials, pursuant to Section 5.2.1. Unless the Third Party Raw Materials are rejected pursuant to Secion 5.2.1, GENZYME will warehouse the Third Party Raw Materials and will fill AASTROM's orders of Third Party Raw Materials upon request for delivery, pursuant to Section 3.4. Upon delivery of the Third Party Raw Materials to AASTROM, AASTROM will perform a further inspection of the Third Party Raw Materials pursuant to Section 5.2.2. Notwithstanding anything to the contrary contained in this Agreement, nothing contained in this Agreement shall require GENZYME to take any actions that would reasonably be expected to result in a breach of any of its existing third party agreements.

3.4 General Provisions

GENZYME will supply the quantities ordered by AASTROM for a given calendar month, provided that such orders do not exceed the forecast quantities for such calendar month, in which case GENZYME will use commercially reasonable efforts to meet AASTROM's needs within a practical time. Notwithstanding the foregoing, it is understood that GENZYME shall not be obliged to deliver any quantities of Raw Materials in excess of the forecast quantities.

Under no circumstances shall GENZYME be obliged to accept any orders in quantities smaller than the minimum order size as reflected in Exhibit 1, or to deliver Raw Materials pursuant to such orders that are smaller than the minimum order size as reflected in Exhibit 1.

Within fifteen (15) working days of receipt of AASTROM's orders of Genzyme Raw Materials pursuant to Section 3.2, or AASTROM's requests for delivery of Third Party Raw Materials pursuant to Section 3.3, GENZYME will acknowledge receipt of each order and either accept such order by confirming that it will deliver the order on the delivery date requested by AASTROM or propose another reasonable delivery date to AASTROM. If AASTROM confirms that such revised delivery date is acceptable to it within five (5) working days of GENZYME's proposal, such order will be deemed accepted for such confirmed delivery date.

If GENZYME is unable to supply Raw Materials to AASTROM in accordance with the quantity or the delivery date specified in any accepted order, GENZYME shall inform AASTROM immediately and the Parties shall agree on an appropriate delivery date and/or other appropriate measures. In the event AASTROM obtains Raw Materials from another source due to a delay exceeding three (3) months, then any raw materials obtained will reduce the binding portion of the forecast accordingly. To the extent such delay is caused exclusively by GENZYME, GENZYME will reimburse AASTROM for all fully documented direct costs and expenses incurred byAASTROM in manufacturing or purchasing replacement Raw Materials that were subject to the purchase order.

ARTICLE 4 - STORAGE

GENZYME shall maintain all stocks of Raw Materials in accordance with cGMP until delivery of such Raw Materials to AASTROM in accordance with this Agreement.

ARTICLE 5 - QUALITY — CONTROL

5.1 Genzyme Raw Materials

5.1.1 The Genzyme Raw Materials delivered by GENZYME hereunder shall be in conformance with the specifications, as specified in Exhibit 1 (hereinafter referred to as the "**SPECIFICATIONS**") at the time of delivery. Each delivery of Genzyme Raw Materials by GENZYME shall be accompanied by a certificate of analysis issued by GENZYME showing the conformity of the delivered batch of Genzyme Raw Materials with the SPECIFICATIONS. Such certificate of analysis shall conform with and be signed in accordance with cGMP and the other applicable regulatory requirements.

5.1.2 AASTROM or its designee shall immediately, upon a shipment's arrival on its site, carefully inspect such shipment of Genzyme Raw Materials for transport damages, losses and shortfalls. AASTROM shall notify the carrier of any apparent defects, including damaged containers or missing packages of Genzyme Raw Materials, within ten business days of arrival of the shipment and the freight documents at AASTROM or its designee's site and, where possible, obtain the countersignature of the carrier's representative. Failure of AASTROM or its designee to notify the carrier of such apparent defects within such period shall excuse GENZYME from any liability with respect to such defects.

5.1.3 AASTROM undertakes to check GENZYME's certificates of analysis for the Genzyme Raw Materials against the SPECIFICATIONS and will test any shipment of Genzyme Raw Materials for identity and compliance with the SPECIFICATIONS.

In the event that any shipment of Genzyme Raw Materials fails to conform with the SPECIFICATIONS, AASTROM shall notify GENZYME thereof within forty-five (45) days of the delivery of Genzyme Raw Materials to AASTROM.

If so requested by GENZYME, AASTROM shall send to GENZYME a sample of the rejected shipment.

At GENZYME's discretion, the batches of Genzyme Raw Materials which do not conform with the SPECIFICATIONS shall either be returned to GENZYME, with freight and insurance charges to be borne by GENZYME, or destroyed by AASTROM, at GENZYME's expense. In such latter case, AASTROM shall give GENZYME evidence of such destruction.

GENZYME's sole obligation and AASTROM's sole and exclusive remedy with respect to such non-conforming Genzyme Raw Materials shall be for GENZYME to replace such Genzyme Raw Materials at no charge to AASTROM as soon as reasonably possible.

5.1.4 Failure of AASTROM to mail notice of rejection within thirty (30) days of the delivery of Genzyme Raw Materials to AASTROM or its designee, as applicable, shall constitute an irrevocable acceptance of such Raw Materials. Notwithstanding anything to the contrary in this Agreement, if defect in the Genzyme Raw Materials could not reasonably be discovered within such thirty (30) day period outlined above (a "Latent Defect"), then AASTROM shall have the right to reject such Genzyme Raw Materials within five (5) calendar days after discovering such Latent Defect, but in any event no later than the shorter of (i) two (2) months from the delivery date of such Genzyme Raw Materials, or (ii) the shelf life of such Genzyme Raw Materials as listed on Exhibit 1.

Any dispute between the Parties regarding the conformity or non-conformity of the Genzyme Raw Materials to the SPECIFICATIONS shall be submitted to an independent laboratory, to be agreed upon by the Parties.

Should the Parties fail to agree on the designation of the independent laboratory within thirty (30) working days of the date that such dispute arises, either Party may seek redress in a court of competent jurisdiction in accordance with the provisions of Article 13.

The decision of such independent laboratory shall be binding on both parties. Any costs or expenses incurred in connection with the dispute resolution by such independent laboratory shall be borne by the non-prevailing Party.

5.1.5 GENZYME makes no warranty of any kind, express or implied, except that the Genzyme Raw Materials sold to AASTROM shall have been manufactured in accordance with Article 2 and shall, upon delivery to AASTROM, conform to the SPECIFICATIONS.

5.2 Third Party Raw Materials

5.2.1 In accordance with Section 3.3, upon arrival of a delivery of Third Party Raw Materials at the GENZYME warehouse facility, AASTROM shall be responsible for

inspection of such Third Party Raw Materials, including checking any third party manufacturer certificates of analysis against the relevant third party manufacturer specifications or testing any shipment of Third Party Raw Materials for identity and compliance with such specifications. To the extent the Third Party Raw Materials do not conform with the relevant third party manufacturer specifications, the Parties shall cooperate to cause such non-conforming Third Party Materials to be returned to the third party manufacturer according to the procedures prescribed by the underlying agreements with such third party manufacturer.

GENZYME's sole obligation and AASTROM's sole and exclusive remedy with respect to such non-conforming Third Party Raw Materials shall be for GENZYME to cooperate with AASTROM to seek replacement pursuant to the underlying agreements with such third party manufacturers.

5.2.2 Upon final delivery of Third Party Raw Materials from the GENZYME warehouse facility to AASTROM in accordance with Section 3.3, AASTROM or its designee shall immediately inspect such shipment of Third Party Raw Materials for transport damages, losses and shortfalls. AASTROM shall notify the carrier of any apparent defects, including damaged containers or missing packages of Third Party Raw Materials (but excluding defects governed by Section 5.2.1), within ten business days of arrival of the shipment and the freight documents at AASTROM or its designee's site and, where possible, obtain the countersignature of the carrier's representative. Failure of AASTROM or its designee to notify the carrier of such apparent defects within such period shall excuse GENZYME from any liability with respect to such defects.

GENZYME's sole obligation and AASTROM's sole and exclusive remedy with respect to such defective Third Party Raw Materials, where said defects were caused by GENZYME, shall be for GENZYME to replace such Third Party Raw Materials at no charge to AASTROM.

5.2.3 All Third Party Raw Materials supplied by GENZYME to AASTROM pursuant to this Agreement are provided on an "as-is" basis at the sole risk of AASTROM, and GENZYME makes no warranties, express or implied, with respect to any Third Party Raw Materials. Notwithstanding the foregoing, Genzyme will make commercially reasonable efforts to ensure that any express or implied warranties running from any third party manufacturer of Third Party Raw Materials to GENZYME shall also run to the benefit of AASTROM, and such warranties, if any, shall be the sole warranties arising from the supply by GENZYME of Third Party Raw Materials to AASTROM under this Agreement..

5.3 General Provisions

EXCEPT AS EXPRESSLY SET FORTH IN THIS SECTION 5.5, GENZYME MAKES NO WARRANTY, EXPRESS OR IMPLIED, WITH RESPECT TO THE RAW MATERIALS OR ANY PHARMACEUTICAL PRODUCTS PRODUCED FROM OR CONTAINING THE RAW MATERIALS AND EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR OF NON-INFRINGEMENT.

ARTICLE 6 - REGULATORY

6.1 GENZYME shall diligently, at its cost, compile, submit and, at all times during the term of this Agreement, maintain all regulatory filings for the Genzyme Raw Materials in accordance with the standards required by the applicable regulatory authority in the United States.

6.2 GENZYME shall, at its cost, maintain all governmental, regulatory and other licences, consents, approvals and authorisations necessary to ensure the supply, without break in continuity, of Genzyme Raw Materials to AASTROM during the term of this Agreement.

6.3 GENZYME shall provide access at all times to applicable regulatory authorities and co-operate fully with such authorities with respect to any matter involving the Genzyme Raw Materials supplied to AASTROM, or with respect to the warehousing and storage of the Third Party Raw Materials supplied to AASTROM.

AASTROM will be allowed, at any time during the term of the Agreement, to carry out reasonable quality assurance audits of the premises and facilities where the Genzyme Raw Materials are manufactured by GENZYME or any of its Affiliates and to inspect any documentation relating to the quality of the Genzyme Raw Materials, during working hours and with reasonable prior notice to GENZYME.

Where any audit or inspection by the regulatory authorities or representatives of AASTROM identifies any issues that may affect the quality of the Genzyme Raw Materials, such as non-compliance with the applicable cGMP or other legal or regulatory requirements, such issues shall be resolved in accordance with the governance and dispute resolution provisions of Article 3 of the Transition Services Agreement.

6.4 GENZYME shall retain all manufacturing records relating to Genzyme Raw Materials purchased by AASTROM, and retention samples of all Genzyme Raw Materials purchased by AASTROM, for a period of not less than six (6) years.

6.5 GENZYME shall retain exclusive responsibility for all decisions and actions with respect to any complaint, recall, market withdrawal or other corrective action with respect to any products created from or incorporating the Raw Materials until the transfer to AASTROM of the licenses with respect to such products, at which point all such responsibility will transfer to AASTROM.

ARTICLE 7 - PRICES - TERMS OF PAYMENT AND DELIVERY

7.1 The purchase price for Raw Materials shall be: (i) with respect to Third Party Raw Materials, GENZYME's cost of procuring the Third Party Raw Materials plus five percent (the "**Third Party Payment Amount**"), and (ii) with respect to Genzyme Raw Materials, GENZYME's cost of producing the Genzyme Raw Materials as set forth on Exhibit 1 plus five percent (the "**Genzyme Payment Amount**").

Title to a given shipment of Raw Materials shall pass to AASTROM upon full payment of the Third Party Payment Amount or the Genzyme Payment Amount, as applicable, for such shipment.

Notwithstanding the retention of title, transfer of risk with respect to a given shipment of the Raw Materials shall occur upon delivery of such shipment to AASTROM or its designee's site.

7.2 GENZYME shall invoice AASTROM upon delivery of the Raw Materials. Payment shall be due and payable by bank transfer in USD (US Dollars) within thirty (30) days from the date of invoice.

In the absence of the express written consent of GENZYME, failure to pay all or any part of an invoice when due will, without notice and without prejudice to other remedies, automatically give rise to interest for late payment (which may be increased by VAT) which rate shall be equal to the lesser of twelve percent (12%) per annum or the maximum rate allowed by applicable law. Interest shall accrue starting from the initial payment due date until the date of full payment of the applicable invoice.

ARTICLE 8 - LIABILITY - INSURANCE - INDEMNITY

8.1 AASTROM shall assume, upon delivery of any shipment of Raw Materials according to Section 7.1, all risks and liabilities resulting from the storage or any subsequent uses of such shipment of Raw Materials, including in combination with other components, provided that, with respect to Genzyme Raw Materials, at the time of delivery such Genzyme Raw Materials are in compliance with the SPECIFICATIONS and otherwise in accordance with the provisions of this Agreement. GENZYME shall not be responsible for non-conforming Third Party Raw Materials, unless such Third Party Raw Materials are damaged while in GENZYME's possession.

8.2 **TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LEGAL REQUIREMENTS, AND EXCEPT FOR CLAIMS PURSUANT TO SECTIONS 8.5, 8.6 AND 8.7 AND IN CIRCUMSTANCES WHERE AWARDED TO A THIRD PARTY, (A) NEITHER PARTY WILL BE LIABLE TO THE OTHER FOR ANY LOST PROFITS OR OTHER SPECIAL, INCIDENTAL, INDIRECT, PUNITIVE OR CONSEQUENTIAL DAMAGES, HOWEVER CAUSED, UNDER ANY THEORY OF LIABILITY, ARISING FROM THE PERFORMANCE OF, OR RELATING TO, THIS AGREEMENT REGARDLESS OF WHETHER SUCH PARTY HAS BEEN NOTIFIED OF THE POSSIBILITY OF, OR THE FORESEEABILITY OF, SUCH DAMAGES; AND (B) EACH PARTY'S LIABILITY FOR DAMAGES IN CONNECTION WITH THIS AGREEMENT OR THE PERFORMANCE OR NEGOTIATION HEREOF WILL NOT EXCEED THE AMOUNT OF THE INVOICE FOR THE SHIPMENT OF RAW MATERIALS WITH RESPECT TO WHICH SUCH LOSSES, DAMAGES, LIABILITIES OR EXPENSES AROSE.**

8.3 Each Party shall take all necessary steps, at its own cost and its own behalf to properly insure, with a reputable insurance company as far as reasonably possible, its entire legal liability resulting from its activity performed pursuant to this Agreement.

8.4 Each Party shall promptly inform the other Party of any significant claims or threatened claims in connection with the Raw Materials and shall consult with the other Party with respect to such claims or threatened claims.

8.5 AASTROM will indemnify, defend and hold harmless GENZYME and its officers, directors, agents, employees and Affiliates, from and against any and all Damages,

including reasonable attorneys' fees (collectively, "**Losses**") arising out of, relating to or resulting from (a) AASTROM's material breach of this Agreement, (b) AASTROM's gross negligence or willful misconduct in connection with its receipt of Raw Materials pursuant to this Agreement or (c) AASTROM's use or GENZYME's provision of Raw Materials supplied pursuant to this Agreement, except for those Losses for which GENZYME is obligated to indemnify, defend and hold harmless Service Recipient and its officers, directors, agents, employees and Affiliates pursuant to Section 8.6.

8.6 GENZYME will indemnify, defend and hold harmless AASTROM and its officers, directors, agents, employees and Affiliates from and against any and all Losses arising out of, relating to or resulting from (a) GENZYME's material breach of this Agreement or (b) GENZYME's gross negligence or willful misconduct in the provision of Genzyme Raw Materials pursuant to this Agreement.

8.7 An indemnifying Party's indemnification obligations hereunder will be conditioned upon (a) the indemnified Party providing the indemnifying Party with written notice describing such indemnification claim ("**Claim**") in reasonable detail in light of the circumstances then known and then providing the indemnifying Party with further notices to keep it reasonably informed with respect thereto; provided however, that failure of the indemnified Party to provide such notice or keep the indemnifying Party reasonably informed as provided herein will not relieve the indemnifying Party of its obligations hereunder except to the extent, if any, that the indemnified Party is materially prejudiced thereby, (b) the indemnifying Party being entitled to participate in such Claim and assume the defense thereof with counsel reasonably satisfactory to the indemnified Party, at the indemnifying Party's sole expense, and (c) the indemnified Party reasonably cooperating with the indemnifying Party, at the indemnifying Party's sole cost and expense, in the defense of any Claim. The indemnifying Party will not accept any settlement that places restrictions on any indemnified Party or requires any payment by any indemnified Party and, further, will not accept any settlement unless the settlement includes as an unconditional term thereof the giving by the claimant or the plaintiff of a full and unconditional release of the indemnified Parties, from all liability with respect to the matters that are subject to such Claim, without the indemnified Party's prior written consent, which consent will not be unreasonably withheld, delayed or conditioned. The indemnified Party may participate in the defense of any claim with counsel reasonably acceptable to the indemnifying Party, at the indemnified Party's own expense.

8.8 With the exception of any claims of fraud which are proven and upon which a judgment entered in the involved proceeding will be expressly based, the Parties acknowledge and agree that the provisions of Sections 8.5, 8.6 and 8.7 will be the exclusive remedy for all claims relating to this Agreement, including the negotiation or performance hereof.

ARTICLE 9 — CONFIDENTIALITY AND INTELLECTUAL PROPERTY

9.1 The Parties may from time to time disclose to each other Confidential Information (as defined in the APA). For avoidance of doubt, the Specifications and batch records, orders and purchasing terms of Aastrom shall be deemed the Confidential Information of Aastrom. Each Party and its Affiliates, shall not disclose such information to third Persons and shall not use such information for purposes other than the purposes expressly set forth in this Agreement, without the prior written consent of the other

Party. Each Party may disclose such information on a strict need-to-know basis only to Persons directly engaged with such Party's activities under this Agreement (including any Party's Affiliates and their employees), and shall ensure that such Persons are bound by confidentiality obligations equivalent to those set forth in this Agreement. The obligation of confidentiality set forth in this Section 9.1 shall apply during the term of the Agreement and ten (10) years after its termination or expiration.

9.2 The foregoing obligations shall not apply, however, to any part of such information received, which:

a. can be shown by written documentation to have been known to the receiving Party and/or any of its Affiliates prior to disclosure by the disclosing Party, other than such Confidential Information in the possession of Sanofi, GENZYME and their respective Affiliates due to its previous ownership of the Business and/or the Transferred Assets; or

b. was known to the public or generally available to the public prior to the date of the disclosure to the receiving Party by the disclosing Party; or

c. enters the public domain by publication or otherwise through no breach of this Agreement; or

d. can be shown by written documentation to have been made known to the receiving Party and/or any of its Affiliates without breach of any obligation of confidentiality by a third party having the bona fide right to disclose or make available such information.

9.3 Each Party may disclose the confidential information if such disclosure is required by applicable law, regulation or legal process, provided that prior notification of such disclosure is given to to the other Party. In such case, the receiving Party shall promptly notify the other Party in writing and, upon such Party's request (and at the disclosing Party's cost), the receiving Party will reasonably cooperate with the other Party in taking all lawful action (at such other Party's cost) against such compelled disclosure or necessary to comply with such compelled disclosure, as applicable, provided always that any disclosure shall be only to the extent required.

9.4 If GENZYME becomes aware of any infringement of AASTROM's intellectual or industrial property rights related to the Raw Materials by third parties, GENZYME shall immediately notify AASTROM thereof in writing. If reasonably requested by AASTROM, GENZYME will assist or join AASTROM, at AASTROM's expense, in taking such steps as AASTROM and/or its counsel may deem advisable for the protection of AASTROM's rights. The commencement, strategies, termination and settlement of any action relating to the validity or infringement of such property rights shall be decided by AASTROM in its sole discretion. Any such proceedings shall be at the expense of AASTROM and any recoveries shall be for the benefit of AASTROM. Nothing herein, however, shall be deemed to require AASTROM to enforce its property rights against others or to allow AASTROM or require GENZYME to compromise or prejudice any intellectual or industrial property rights belonging to GENZYME or licensed to GENZYME by any third party.

9.5 AASTROM and/or its Affiliates, as the case may be, retain all rights, title and interest in and to the technical information and any other industrial and/or intellectual property rights related to the Raw Materials.

ARTICLE 10 - FORCE MAJEURE

10.1 Each Party will be excused for any failure or delay in performing any of its obligations under this Agreement, other than the obligations of AASTROM to make payments to GENZYME for shipments of Raw Materials, if such failure or delay is caused by any act of God, any accident, explosion, fire, act of terrorism, storm, earthquake, flood, failure of common carrier, failure of third party manufacturer, strike, work stoppage, shortage of any raw materials or any components or any other circumstance or event outside of such Party's reasonable control (a "**Force Majeure**").

10.2 The Party asserting Force Majeure shall promptly notify the other Party of the event constituting Force Majeure and of all relevant details, and shall furnish appropriate evidence of the occurrence.

10.3 Thereafter, the Parties shall consult with each other in order to find a fair solution and shall use commercially reasonable efforts to minimise the consequences of such Force Majeure.

10.4 Notwithstanding anything to the contrary, either Party shall have the right to terminate this Agreement upon thirty (30) days' prior written notice to the other Party if the inability of such other Party to fulfil its obligations due to Force Majeure exceeds a three (3)-month period.

10.5 If the Parties are unable to agree that an event of Force Majeure has occurred, the matter shall be settled in accordance with the dispute resolution provisions set forth in Article 14 of this Agreement.

ARTICLE 11 - TERM AND TERMINATION

11.1 This Agreement and all of its terms and conditions shall become effective as of the Effective Date and shall remain in full force for a maximum period of twelve (12) months (the "**Term**").

11.2 Either Party may terminate this Agreement at any time during the Term, effective immediately, upon written notice to the other Party:

(i) if the other Party commits a breach under this Agreement and fails, within thirty (30) days of receipt of written notice of such breach (or ten (10) days in the event of a payment breach), (x) to remedy the same (if capable of remedy) or (y) if the breach is one which requires more than thirty (30) days to cure, to commence without delay and diligently pursue the remedy within such time;

(ii) if the other Party goes into bankruptcy or insolvency or is liquidated (other than for the purposes of a bona fide corporate reorganization or amalgamation); or

(iii) in the cases expressly provided for in Section 10.4.

11.3 GENZYME shall be entitled to terminate the Agreement immediately (i) with respect to any Third Party Raw Materials, in the event that the third party agreements governing the supply of those materials are terminated; provided that GENZYME shall have informed AASTROM in advance with respect to the proposed termination of such third party agreements, or (ii) in the event of a breach by AASTROM of the terms of Section 12.2 (Anti-Bribery), without payment of any compensation or other damages to AASTROM arising out of such termination (regardless of any activities or agreements with any third parties entered into by AASTROM prior to the termination of this Agreement) by giving notice in writing to AASTROM. GENZYME will not be liable for, nor make any payment to AASTROM in respect of, any direct economic loss or other loss of turnover, profits, business or goodwill or any special, indirect or consequential losses suffered by AASTROM as a result of such termination. The right to terminate this Agreement under this Clause 11.3 will be without prejudice to any other right or remedy of GENZYME which may have accrued up to the date of termination. AASTROM shall be entitled to terminate the Agreement immediately in the event of a breach by GENZYME of the terms of Section 12.2 (Anti-Bribery), without payment of any compensation or other damages to GENZYME arising out of such termination (regardless of any activities or agreements with any third parties entered into by GENZYME prior to the termination of this Agreement) by giving notice in writing to GENZYME. AASTROM will not be liable for, nor make any payment to GENZYME in respect of, any direct economic loss or other loss of turnover, profits, business or goodwill or any special, indirect or consequential losses suffered by GENZYME as a result of such termination. The right to terminate this Agreement under this Clause 11.3 will be without prejudice to any other right or remedy of AASTROM which may have accrued up to the date of termination. AASTROM may terminate this Agreement in its entirety, without charge or penalty upon written notice to GENZYME; provided that AASTROM shall remain liable for any undelivered Raw Materials specified in the then-current binding purchase orders for Raw Materials.

11.4 The termination of this Agreement for whatever cause shall neither affect any of the rights or obligations of either Party which have accrued through the effective date of such termination, nor affect any rights or obligations of either Party under this Agreement that are intended by the Parties to survive such expiration or termination.

11.5 The termination of this Agreement for whatever cause shall not excuse AASTROM from the payment to GENZYME of any amounts due for shipments of Raw Materials already delivered or from the reimbursement of GENZYME for any non-cancellable costs incurred in connection with the manufacture or sourcing of the Raw Materials through the effective date of such termination.

11.6 Any provision which by its nature should survive, including the provisions of Section 11.7, Article 7, Article 8, and Article 12, will survive the expiration or termination of this Agreement.

11.7 Upon any expiration or termination of this Agreement in whole or in part and for any reason (a) each Party will use commercially reasonable efforts to cooperate with the other Party as reasonably necessary to avoid disruption of the ordinary course of the other Party’s business and (b) each Party will promptly return to the other Party or destroy any and all confidential information or other proprietary information of such

other Party in its or its Affiliates' possession upon expiration or termination of this Agreement.

ARTICLE 12 - MISCELLANEOUS

12.1 Hardship

Should any unforeseen event, while not preventing either Party from performing any of its obligations hereunder, cause either Party inequitable hardship with respect to the performance of such obligations, and the Party can demonstrate this by competent proof, then both Parties shall negotiate in good faith an equitable way to adapt this Agreement to the new circumstances.

12.2 Anti-Bribery

Each Party warrants, represents and undertakes that (a) it will comply with the requirements of all applicable anti-bribery legislation, both national and foreign, including but not limited to the OECD Convention dated 17th December 1997 on combating bribery of public officials in international business, and (b) it has not and will not make, promise or offer to make any payment or transfer anything of value (directly or indirectly) to (i) any individual, (ii) corporation, (iii) association, (iv) partnership or (v) public body (including but not limited to any officer or employee of any of the foregoing) who, acting in their official capacity or of their own accord, are in a position to influence, secure or retain any business for (and/or provide any financial or other advantage to) the other Party by improperly performing a function of a public nature or a business activity with the purpose or effect of public or commercial bribery, acceptance of or acquiescence in extortion, kickbacks or other unlawful or improper means of obtaining or retaining business.

Each Party will immediately notify the other Party if, at any time during the term of this Agreement, its circumstances, knowledge or awareness change such that it would not be able to repeat the warranties set forth above at such time.

Each Party undertakes throughout the term of this Agreement to keep detailed and up-to-date books of account and records of all acts by it in relation to this Agreement for a minimum period of seven (7) years and, at the other Party's request, to make them available for inspection. Without prejudice to the generality of the foregoing, this obligation will extend to records of all payments made by AASTROM in connection with this Agreement. Each Party will ensure that such books of account and records are sufficient to enable the other Party to verify compliance with this Section 12.2.

12.3 Records

GENZYME shall maintain accurate records arising from or related to any Raw Materials supplied hereunder, including accounting records and documentation produced in connection with the supply of any Raw Materials, substantially consistent with GENZYME's past practices for similar supply of materials for its own account.

12.4 Inspection Rights

During the Term and for ninety (90) days thereafter, GENZYME shall, upon reasonable prior written notice from AASTROM, permit AASTROM, or its designated

representatives, to inspect and audit GENZYME's records relating to the supply of Raw Materials during regular business hours, with the right to make any copies, for the sole purpose of verifying the amount charged by GENZYME for the Raw Materials; provided, that AASTROM shall comply with GENZYME's reasonable security and safety procedures as such procedures are communicated to AASTROM.

12.5 Interpretation

Except as otherwise explicitly specified to the contrary, (a) references to a section, exhibit or schedule means a section of, or schedule or exhibit to this Agreement, unless another agreement is specified, (b) the word "including" (in its various forms) means "including without limitation," (c) references to a particular statute or regulation include all rules and regulations thereunder and any predecessor or successor statute, rules or regulation, in each case as amended or otherwise modified from time to time, (d) words in the singular or plural form include the plural and singular form, respectively, (e) references to a particular Person include such Person's successors and assigns to the extent not prohibited by this Agreement, (f) unless otherwise specified "$" is in reference to United States dollars, and (g) the headings contained in this Agreement, in any exhibit or schedule to this Agreement and in the table of contents to this Agreement are for reference purposes only and will not affect in any way the meaning or interpretation of this Agreement.

12.6 Severability

Any provision of this Agreement which is held to be invalid and unenforceable in any jurisdiction shall be ineffective as to such jurisdiction, without invalidating the remaining provisions hereof or affecting the validity or enforcement of such provision in other jurisdictions, and this Agreement will continue in full force and effect without said provision; provided, however, that if the economic terms of this Agreement are materially altered by such invalidity for one of the Parties, the Parties shall negotiate to modify such invalid clause in such a way as to preserve the financial equilibrium contemplated at the signature of this Agreement.

12.7 Assignment, Sub-contracting and Licensees

This Agreement shall be binding upon and inure to the benefit of the Parties and their respective successors and permitted assigns, provided, however, that no Party may assign any right or obligation hereunder, in whole or in part, without the prior written consent of the other Party, which consent may not be unreasonably withheld, provided that GENZYME is entitled to assign any of its rights and/or obligations hereunder to any of its Affiliates, whether presently existing or to be created or acquired in the future, without the prior written approval of AASTROM.

AASTROM acknowledges that GENZYME may use contractors and third parties to manufacture Third Party Raw Materials and supply Third Party Raw Materials to AASTROM under this Agreement. Subject to the provisions of Section 5.5, GENZYME shall have no liability to AASTROM for any acts or omissions of such contractors or third parties.

12.8 Notice

Any notice required or permitted to be given hereunder must be provided in writing and (a) delivered in person or by express delivery or courier service, (b) sent by facsimile, or (c) deposited in the mail registered or certified first class, postage prepaid and return receipt requested (provided that any notice given pursuant to subsection (b) of this Section 12.8 is also confirmed by the means described in subsections (a) or (c) of this Section 12.8) to such address or facsimile of the Party set forth in this Section 12.8 or to such other place or places as such Party from time to time may designate in writing in compliance with the terms of this Section 12.8. Each notice will be deemed given when so delivered personally, or sent by facsimile transmission, or, if sent by express delivery or courier service, one Business Day after being sent, or if mailed, five Business Days after the date of deposit in the mail. A notice of change of address or facsimile number will be effective only when done in accordance with this Section 12.8.

(i) To AASTROM at:

Aastrom Biosciences, Inc.
Domino's Farms, Lobby K
24 Frank Lloyd Wright Drive
Ann Arbor, MI 48105

Attention: Nick Colangelo
Fax: +1-734-665-0485
Phone: +1-734-418-4400

With a copy to:

Goodwin Procter LLP
53 State Street
Exchange Place
Boston, MA 02109

Attention: Mitchell S. Bloom, Esq.
Danielle Lauzon, Esq.
Fax: +1-617-523-1231
Phone: +1-617-570-1000

(ii) To GENZYME at:

Genzyme Corporation
55 Cambridge Parkway
Cambridge, MA 02142

Attention: Head of Biosurgery Global GSU
Fax: +1-617-761-8918

With a copy to:

Sanofi
54, rue la Boétie
75008 Paris, France

Attention: General Counsel

Fax: +33-1-5377-4303

And

Ropes & Gray LLP
Prudential Tower
800 Boylston Street
Boston, MA 02199-0566

Attention: Christopher Comeau
Fax: +1-617-235-0566

12.9 Independent Contractors

The Parties to this Agreement are and will remain independent contractors and neither Party is an employee, agent, partner, franchisee or joint venturer of or with the other. Each Party will be solely responsible for any employment-related taxes, insurance premiums or other employment benefits respecting its employees. Neither Party will hold itself out as an agent of the other and neither Party will have the authority to bind the other.

12.10 Entire Agreement

This Agreement together with the Asset Purchase Agreement and the other Ancillary Agreements, constitutes the entire agreement between and among the Parties with regard to the subject matter of this Agreement, and supersedes all prior agreements and understandings with regard to such subject matter. Except for the Confidentiality Agreement, there are now no agreements, representations or warranties between or among the Parties other than those set forth in this Agreement or the Ancillary Agreements.

The provisions of this Agreement shall prevail over any conflicting or inconsistent terms or conditions contained in any invoices, purchase orders or other documents submitted by either Party to the other Party.

12.11 Amendment, Waivers and Consents

This Agreement may not be changed or modified, in whole or in part, except by supplemental agreement or amendment signed by the Parties. Any Party may waive compliance by any other Party with any of the covenants or conditions of this Agreement, but no waiver will be binding unless executed in writing by the Party making the waiver. No waiver of any provision of this Agreement will be deemed, or will constitute, a waiver of any other provision, whether or not similar, nor will any waiver constitute a continuing waiver. Any consent under this Agreement must be in writing and will be effective only to the extent specifically set forth in such writing.

12.12 Rules of Construction

The Parties acknowledge that each Party has read and negotiated the language used in this Agreement. Because all Parties participated in negotiating and drafting this Agreement, no rule of construction will apply to this Agreement which construes

ambiguous language in favor of or against any Party by reason of that Party's role in drafting this Agreement.

12.13 Rights of Parties

Nothing in this Agreement, whether express 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 permitted assigns, nor is anything in this Agreement intended to relieve or discharge the obligation or liability of any Third Party to any Party, nor will any provision give any Third Party any right of subrogation or action over or against any Party.

12.14 Counterparts

This Agreement may be signed in any number of counterparts, including by facsimile copies or by electronic scan copies delivered by email, each of which will be deemed an original, with the same effect as if the signatures were upon the same instrument.

ARTICLE 13 — GOVERNING LAW; JURISDICTION; WAIVER OF JURY TRIAL

13.1 This Agreement shall be governed by and construed in accordance with the laws of the State of New York, excluding its conflict of laws rules to the extent such rules would apply the law of another jurisdiction.

13.2 Any judicial proceeding brought against any Party or any dispute arising out of this Agreement or related to this Agreement, or the negotiation or performance hereof, must be brought in the courts of the State of New York, or in the U.S. District Court for the State of New York, and, by execution and delivery of this Agreement, each of the Parties accepts the exclusive jurisdiction of such courts, and irrevocably agrees to be bound by any judgment rendered thereby in connection with this Agreement and waives any claim and will not assert that venue should properly lie in any other location within the selected jurisdiction. The consents to jurisdiction in this Section 13.2 will not constitute general consents to service of process in the State of New York for any purpose except as provided in this Section 13.2 and will not be deemed to confer rights on any Person other than the Parties. Service of any process, summons, notice or document by U.S. mail to a Party's address for notice provided in or in accordance with Section 12.8 will be effective service of process for any action, suit or proceeding in the State of New York with respect to any matters for which it has submitted to jurisdiction pursuant to this Section 13.2

13.3 TO THE EXTENT NOT PROHIBITED BY APPLICABLE LAW THAT CANNOT BE WAIVED, THE PARTIES HEREBY WAIVE, AND COVENANT THAT THEY WILL NOT ASSERT (WHETHER AS PLAINTIFF, DEFENDANT OR OTHERWISE), ANY RIGHT TO TRIAL BY JURY IN ANY ACTION ARISING IN WHOLE OR IN PART UNDER OR IN CONNECTION WITH THIS AGREEMENT, WHETHER NOW EXISTING OR HEREAFTER ARISING, AND WHETHER SOUNDING IN CONTRACT, TORT OR OTHERWISE. THE PARTIES AGREE THAT ANY OF THEM MAY FILE A COPY OF THIS PARAGRAPH WITH ANY COURT AS WRITTEN EVIDENCE OF THE KNOWING, VOLUNTARY AND BARGAINED-FOR AGREEMENT AMONG THE PARTIES IRREVOCABLY TO WAIVE ITS RIGHT TO TRIAL BY JURY IN ANY PROCEEDING WHATSOEVER BETWEEN THEM RELATING TO THIS

AGREEMENT AND SUCH PROCEEDINGS WILL INSTEAD BE TRIED IN A COURT OF COMPETENT JURISDICTION BY A JUDGE SITTING WITHOUT A JURY.

(The remainder of this page has been intentionally left blank.)

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed by their respective officers thereto duly authorized as of the day and year first above written.

GENZYME

By: /s/ Jerome Delpech
Name: Jerome Delpech
Title: Attorney-in-Fact

AASTROM

By: /s/ Dominick C. Colangelo
Name: Dominick C. Colangelo
Title: President and CEO

FIRST AMENDMENT TO TRANSITION SUPPLY AGREEMENT

This First Amendment (the "**First Amendment**"), effective as of the date last signed by both parties (the "**First Amendment Effective Date**") is by and between Genzyme Corporation, a Massachusetts corporation ("**Genzyme**"), and Vericel Corporation, formerly known as Aastrom Biosciences Inc., a Michigan corporation ("**Vericel**"), (collectively, the "**Parties**").

WHEREAS, effective as of May 30, 2014, Genzyme and Vericel entered into that certain Transition Supply Agreement (the "**Agreement**") which described transition Raw Materials supply services that Genzyme agreed to provide to Vericel in support of the sale of three (3) products (Carticel®, Epicel® and Matrix Applied Characterized Autologous Cultured Chondrocytes [MACI®]) (the "**Products**", or individually, a "**Product**")) to Vericel (the terms of the sale are memorialized in a separate Asset Purchase Agreement) dated April 19, 2015, between Vericel and Genzyme's Affiliate, Sanofi, a French Société Anonyme (the "**Asset Purchase Agreement**" or "**APA**");

WHEREAS, the Agreement expiration date is May 29, 2015;

WHEREAS, Vericel requires additional supply support from Genzyme related to the supply of 3T3 cells, as further set forth in the Agreement;

WHEREAS, Genzyme has agreed to continue to supply Genzyme Raw Materials 3T3 cells, subject to the terms and conditions of the Agreement for a limited period of time;

WHEREAS, Vericel requires additional vial washing services from Genzyme for the Carticel Product, such services previously subject to the terms and conditions of the Transition Services Agreement between the Parties effective May 30, 2014 ("**Transition Services Agreement**"), an Ancillary Agreement to the Asset Purchase Agreement; and

WHEREAS, Genzyme has agreed to continue to allow Vericel to access Genzyme's facility to wash vials, subject to the terms and conditions of this Agreement for a limited period of time;

NOW, THEREFORE, in consideration of the above-recitals, the mutual benefits to be derived by the parties, and other good and valuable consideration, the receipt and satisfaction of which are acknowledged, Genzyme and Vericel agree to amend the Agreement as follows:

1. All capitalized terms not defined herein shall have the same meaning as set forth in the Agreement, or, as further directed by the Agreement, as set forth in the Asset Purchase Agreement.

2. All references to Aastrom Biosciences Inc. are hereby deleted from the Agreement and Vericel Corporation is substituted in its place.

3. The Parties hereby agree that supply services provided after May 29, 2015, but before the First Amendment First Amendment Effective Date are subject to, and construed to be provided in compliance with, the Agreement.

4. The Parties hereby agree that during the remaining Term of the Agreement, Genzyme has no obligation to supply Vericel with (a) Third Party Raw Materials, or (b) Genzyme Raw Materials other than the 3t3 cells outlined in Exhibit 1. The Parties further agree that reference to 3t3 cells

shall mean only those 3t3 cells or banks that are Genzyme Raw Materials subject to the Agreement as further set forth in Exhibit 1.

5. Article 1 - Scope of the Agreement. Article 1 is hereby stricken and replaced in its entirety by the amended Article 1 below:

"Article 1 - SCOPE OF THE AGREEMENT

For the duration of the Agreement, GENZYME undertakes to supply VERICEL with the Raw Materials as so requested by VERICEL and VERICEL undertakes to purchase from GENZYME its requirements of Raw Materials as determined in VERICEL'S sole discretion when purchasing from a third party supplier, subject to the terms and conditions herein set forth, provided, however, that as of May 30, 2015, GENZYME's supply obligations are limited solely to the supply of 3T3 cells in accordance with the specifications set forth in Exhibit 1. Further, as of the First Amendment Effective Date, GENZYME undertakes to perform the Services as further identified below, subject to the terms and conditions herein set forth."

6. Article 2 - Supply. Article 2 is hereby stricken and replaced in its entirety by the amended Article 2 below:

"Article 2 - SUPPLY and SERVICES

2.1 Supply. The Genzyme Raw Materials delivered hereunder shall be manufactured in accordance with the applicable current Guidelines of Good Manufacturing Practices for Drugs ("**cGMP**") and other applicable health authority regulations for therapeutic products as applicable to the Genzyme Raw Materials. At the time of delivery to VERICEL by Genzyme, the Genzyme Raw Materials shall have a shelf life of at least the time period specified for such Raw Materials on Exhibit 1, attached hereto and incorporated herein by reference.

Subject to Section 7.6 of the APA, promptly after final delivery of the 3t3 cells to VERICEL and its acceptance by VERICEL, GENZYME shall ship all remaining master cell banks and production cell banks for the 3t3 cells to VERICEL in two separate shipments as Transferred Assets. GENZYME shall ship these banks in liquid nitrogen and in accordance with the requisite storage conditions set forth in the SPECIFICATIONS for shipment of the current production cell banks. At any time up to and including the shipment of these banks, GENZYME shall provide VERICEL with copies of any documentation relating to the production or quality of, or produced in connection with, the supply the 3t3 cells, including, without limitation, standard operating procedures, manufacturing records and the microcarrier process, provided, however, that GENZYME shall have no obligation to provide proprietary documentation for Retained Intellectual Property that is not related to the production, quality or supply of the 3t3 cells.

The Parties hereby agree to the 3t3 cell production schedule as set forth below for 2016, subject to Section 3.1:

Run #	Activity	Dates	Quarter
1	3T3	15Feb - 15Mar	1Q2016
2	3T3	15Mar - 15Apr	1Q2016
3	3T3	01May - 01Jun	2Q2016
4	3T3	01Jun - 01Jul	3Q2016
5	3T3	01Aug - 01Sep	3Q2016
6	3T3	01Nov - 01Dec	4Q2016

2.2 Services. GENZYME will allow VERICEL Personnel access to GENZYME's facility to wash vials (the "**Services**") as further set forth, and in accordance with, the terms and conditions set forth in Exhibit 2, attached hereto and incorporated herein by reference."

7. Article 8, Liability, Insurance, Indemnity. The following sections in Article 8 are hereby amended as set forth below:

a. Section 8.2: Clause B is hereby amended to "(B) EACH PARTY'S LIABILITY FOR DAMAGES IN CONNECTION WITH THIS AGREEMENT OR THE PERFORMANCE OR NEGOTIATION HEREOF WILL NOT EXCEED THE AMOUNT OF THE INVOICE FOR THE SHIPMENT OF RAW MATERIALS OR PERFORMANCE OF SERVICES WITH RESPECT TO WHICH SUCH LOSSES, DAMAGES, LIABILITIES, OR EXPENSES AROSE."

b. Section 8.4: The sole sentence in Section 8.4 is hereby stricken and replaced by the following sentence: "Each Party shall promptly inform the other Party of any significant claims or threatened claims in connection with the Raw Materials or Services and shall consult with the other Party with respect to such claims or threatened claims."

c. Section 8.5: Section 8.5 is hereby stricken in its entirety and replaced by the following:

"VERICEL will indemnify, defend and hold harmless GENZYME and its officers, directors, agents, employees and Affiliates, from and against any and all Damages, including reasonable attorneys' fees (collectively, "**Losses**") arising out of, relating to or resulting from (a) VERICEL's material breach of this Agreement, (b) VERICEL's gross negligence or willful misconduct in connection with its receipt of Raw Materials pursuant to this Agreement (c) VERICEL's use or GENZYME's provision of Raw Materials supplied pursuant to this Agreement, except for those Losses for which GENZYME is obligated to indemnify, defend and hold harmless Service Recipient and its officers, directors, agents, employees and Affiliates pursuant to Section 8.6., (d) VERICEL's gross negligence or willful misconduct in connection with its receipt of Services pursuant to this Agreement, including the extent to which VERICEL personnel participate in the Services, (e) with regard to Services only, VERICEL Personnel's misuse of any of GENZYME's systems or Services, (f) with regard to Services only, VERICEL Personnel's disclosure or misuse of any of GENZYME's Confidential Information, or (g) with regard to Services only, VERICEL

Personnel's willful misconduct in connection with the use of GENZYME's systems or Services or Confidential Information.

d. Section 8.6 is hereby stricken in its entirety and replaced by the following: "GENZYME will indemnify, defend and hold harmless VERICEL and its officers, directors, agents, employees and Affiliates from and against any and all Losses arising out of, relating to or resulting from (a) GENZYME's material breach of this Agreement or (b) GENZYME's gross negligence or willful misconduct in the provision of Genzyme Raw Materials or Services pursuant to this Agreement, (c) any GENZYME Personnel's willful misconduct in connection with providing the Services pursuant to this Agreement, or (d) any GENZYME Personnel's disclosure or misuse of the VERICEL's Confidential Information."

8. Section 10.1, Force Majeure. Section 10.1 is hereby deleted in its entirety and replaced by the following: "Each Party will be excused for any failure or delay in performing any of its obligations under this Agreement, other than the obligations of VERICEL to make payments to GENZYME for shipments of Raw Materials or previously-provided Services, if such failure or delay is caused by any act of God, any accident, explosion, fire, act of terrorism, storm, earthquake, flood, failure of common carrier, failure of third party manufacturer, strike, work stoppage, shortage of any raw materials or any components or any other circumstance or event outside of such Party's reasonable control (a "**Force Majeure**")."

9. Section 11.1, Term. Section 11.1 is hereby stricken and replaced in its entirety by the following:

"11.1. Term. This Agreement and all of its terms and conditions shall become effective as of the Effective Date and shall remain in full force and effect until December 31, 2016."

10. Section 11.6, Survival. Section 11.6 is hereby amended to add "6.4 and" after the word "Section" and to replace "and Article 12" with ", Article 12 and Article 13".

11. Exhibit 2, Services. Exhibit 2, Services, attached hereto as Attachment A and incorporated herein by reference, is hereby appended to the end of the Agreement.

* * *

The rights and obligations of the Parties or any dispute arising out of this First Amendment will be interpreted, construed and enforced in accordance with the laws of the State of New York, excluding its conflict of laws rules to the extent such rules would apply the law of another jurisdiction.

This First Amendment will terminate in accordance with the terms set forth in the Agreement.

Except as set forth in this First Amendment, the terms of the Agreement shall remain in full force and effect; provided however, that in the event of a conflict between a term contained in this First Amendment and a term contained in the Agreement, the term contained in this First Amendment shall prevail.

[*Signature page immediately follows.*]

IN WITNESS WHEREOF, Genzyme and Vericel have caused this First Amendment to the Agreement to be executed by their duly authorized representatives as of the First Amendment Effective Date.

GENZYME CORPORATION	VERICEL CORPORATION
Signature:	Signature:/s/ Gerard Michel
Name:	Name: Gerard Michel
Title:	Title: CFO
Date:	Date:

Attachment A

EXHIBIT 2

SERVICES

1. **Control and Applicability**. Except as otherwise expressly set forth in this Exhibit 2, the terms of the Agreement, as amended herein, shall apply to the Services as well as to the Raw Materials Supply, and will be construed to include the Services as well as the Raw Materials Supply. Articles 3, 4, 5, 6, and 7 do not apply to the Services, and therefore do not govern the terms and conditions between the Parties with respect to the Services.

2. **Services**.

    1. Performance of Services. GENZYME will continue to perform Services as historically provided under the Transition Services Agreement for the Carticel Product:

        1. Subject to the commercially reasonable availability of the equipment necessary to perform the vial washing Services, GENZYME will perform the Services in accordance with GENZYME SOPs, at a rate of $323.54 per run.

        2. Such Services will typically be performed quarterly, with annual demand of less than 6,000 vials per calendar year ("**Annual Demand**"), but may be more or less frequent and/or include more or fewer vials upon the mutual agreement between the Parties, such agreement not to be unreasonably withheld, provided, however, that at no time will GENZYME be required to give priority to the Services beyond the Annual Demand, which will be prorated in the event the Term of the Agreement does not coincide with the end of the calendar year.

        3. It is the nature of these Services that VERICEL employees must actively participate in the vial washing process. VERICEL hereby agrees to ensure that all VERICEL Personnel will abide by GENZYME's SOPs.

    2. Service Levels. GENZYME will perform the Services in a manner consistent with the terms and conditions contained herein and in accordance with applicable laws, rules or regulations. In addition, in performing the Services, GENZYME will use a degree of care and diligence that is not materially less than the care and diligence exercised by GENZYME and its Affiliates when engaged in similar services or activities during the twelve (12) month period preceding the Execution Date with respect to the Business, and will use commercially reasonable efforts to deliver the Services in a manner consistent with GENZYME's and its Affiliates' past practices. GENZYME will use qualified GENZYME or Affiliate employees and/or contractors to perform the Services.

    3. Additional Resources. In providing the Services, GENZYME will not be obligated to:

        1. hire any additional employees;

        2. maintain the employment of any specific employee;

        3. purchase, lease or license any additional equipment or software; or

4. pay any costs related to the transfer or conversion of VERICEL's data to VERICEL or any alternate supplier of Services.

4. Third-Party Consents. If any consent or waiver from any third party is needed in connection with GENZYME's provision of the Services, GENZYME will be excused from performing such Service until such consent or waiver is obtained and will use commercially reasonable efforts to cooperate with VERICEL to obtain such licenses or approvals, provided that any payments to third party in connection with obtaining any such consent or waiver will be paid by VERICEL.

3. **Payment Terms**.

3.1. Charges for Services. VERICEL will pay GENZYME the charges as set forth in 2.1.1 of this Exhibit for each Service run as adjusted, from time to time, in accordance with Section 3.3 below.

3.2. Expenses. VERICEL will, for each Service performed, reimburse GENZYME for any reasonable documented out-of-pocket expenses payable to third parties which are incurred by GENZYME or its Affiliates in connection with GENZYME's provision of such Service ("**Expenses**"); provided that the Expenses will not include the allocation of any corporate overhead or similar expenses incurred by GENZYME or its Affiliates in connection with the performance of the Services. Within ten (10) days after the end of each calendar month during the Term, GENZYME will provide VERICEL with a report detailing the Expenses for such previous month. In addition, GENZYME will provide VERICEL with advance written notice of any single Expense or series of related Expenses expected to be in excess of $25,000.

1. Payment Terms. GENZYME will bill VERICEL monthly for all charges pursuant to this Agreement for the previous calendar month. Such invoices will contain reasonable detail of the Services provided and the charge therefor. VERICEL will pay GENZYME for all undisputed amounts due for Services provided hereunder within thirty (30) days from receipt of an invoice therefor. Late payments will bear interest at the lesser of twelve percent (12%) per annum or the maximum rate allowed by law. The Parties acknowledge and agree that failure to pay undisputed amounts due hereunder pursuant to the terms of this Agreement is a material breach and GENZYME may terminate this Agreement under Article 11 of the Agreement.

2. Disputed Amounts. Amounts due hereunder will not be offset by amounts due under any other agreement. Disputes related to any other agreement will not serve as grounds to delay obligations under this Agreement. In particular, VERICEL will not, and will cause its Affiliates to not, offset amounts owed to GENZYME or any Affiliate under this Agreement against amounts owed or allegedly owed by GENZYME or any Affiliate to VERICEL or any Affiliate under any circumstances, and VERICEL hereby irrevocably waives any such right on its own behalf and on behalf of each of its Affiliates.

4. **Transition Service Responsibilities**.

1. Cooperation; Facilities; Access to Information. The Parties will use good faith efforts to cooperate with each other in all matters relating to the provision and receipt of Services. Such cooperation will include exchanging information relevant to the provision of Services hereunder,

good faith efforts to mitigate problems with the work environment interfering with the Services, and each Party requiring its personnel to obey any security regulations and other published policies of the other Party while on the other Party's premises. In addition, VERICEL will provide GENZYME with access to its facilities as is reasonably necessary for GENZYME to perform the Services it is obligated to provide hereunder, provide GENZYME with information and documentation reasonably necessary for GENZYME to perform the Services it is obligated to provide hereunder, and make available, as reasonably requested by GENZYME, reasonable access to resources and provide timely decisions in order that GENZYME may perform its obligations hereunder.

2. Savings Clause. To the extent VERICEL's failure to discharge its obligations set forth in Section 4.1 above or elsewhere in the Agreement or this Exhibit impedes GENZYME's ability to provide any Service or Additional Service hereunder, GENZYME will be excused from its obligation to provide such Services or Additional Services hereunder, provided, that GENZYME provides VERICEL with notice of VERICEL's failure to meet such obligation promptly after GENZYME becomes aware of such failure.

5. **Intellectual Property**

1. Existing Ownership Rights Unaffected. Except as expressly set out in this Section 5, neither Party will gain, by virtue of this Agreement, any rights of ownership or use of Copyrights, Patents, Trade Secrets, Trademarks or any other Intellectual Property owned by the other Party.

2. Trademarks. Neither Party is granted hereunder any ownership in or license to the Trademarks of the other Party.

3. Removal of Marks. Neither Party will remove any Copyright notices, proprietary markings, Trademarks or other indicia of ownership of the other Party from any materials of the other Party.

4. Ownership of Data and Intellectual Property. VERICEL will own all data and records created by VERICEL or any of its Affiliates related exclusively to the Business and generated in connection with the performance of the Services (the "**Data**"). GENZYME will and hereby does, without further consideration, assign (and will cause its Affiliates to assign) to VERICEL any and all right, title or interest that GENZYME or its Affiliates may possess in or to the Data. Upon VERICEL's request, GENZYME will provide VERICEL with copies of the Data in the format in which such Data is generated.

6. **VERICEL Employee Acknowledgment of No Sanofi Employment Benefits**

6.1 Notwithstanding anything else in the Agreement or Exhibit 2, only VERICEL employees (the "**Cleared VERICEL Personnel**") who executed and delivered to the GENZYME an acknowledgment and waiver in the form attached hereto as Attachment B (or, as applicable, its prior version as set forth in the Transition Services Agreement) may receive, or benefit from, Services that involve access to the information services systems and applications of the GENZYME listed in this Exhibit 2, and GENZYME is under no obligation to provide any such Services to the extent any VERICEL employee other than the Cleared VERICEL Personnel would receive, or benefit from, such Services.

7. **Affiliate Performance**. GENZYME may engage one or more Affiliates to perform all or any portion of GENZYME's duties under this Agreement; provided that GENZYME remains liable for the performance of such Affiliates.

8. **No Warranty**. EXCEPT AS EXPRESSLY SET FORTH IN THIS AGREEMENT, GENZYME MAKES NO WARRANTY OR REPRESENTATION WHATSOEVER, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR AGAINST INFRINGEMENT PROVIDED, HOWEVER, THAT WITHOUT PREJUDICE TO ANY RIGHTS TO RELIEF IT MAY OTHERWISE HAVE, A PARTY MAY BE ENTITLED TO SEEK EQUITABLE RELIEF, INCLUDING INJUNCTION, WITHOUT HAVING TO POST A BOND, IN THE EVENT OF ANY MISUSE OR DISCLOSURE (EXCEPT AS PERMITTED AS SET FORTH IN SECTION 9.3) OF THE PARTY'S CONFIDENTIAL INFORMATION BY THE OTHER PARTY OR ITS (AS IT RESPECTIVELY APPLIES TO THE PARTY) SERVICE RECIPIENT PERSONNEL OR SERVICE PROVIDER PERSONNEL.

Attachment B

ACKNOWLEDGMENT AND WAIVER

I, , an employee or a prospective employee of Vericel Corporation (f/k/a Aastrom Biosciences, Inc.) ("Vericel"), acknowledge that I may receive, or benefit from, temporary transitional services provided by Sanofi US Services Inc. and/or Genzyme Corporation and/or any of their affiliates (collectively "Sanofi") to Vericel in connection with the sale of Sanofi's cell therapy and regenerative medicine (CTRM) business to Vericel (the "Transaction"), which closed under the relevant asset purchase agreement on or around April 19, 2014 (the "Closing Date"). In the interest of clarity and consistent with the terms of the Employment Offer Letter I received from Vericel, I acknowledge that, as from the Closing Date, I am or will be an employee of Vericel and that **I am not or will not be an employee of Sanofi**. I understand and agree that, despite Sanofi's provision of temporary transitional services to Vericel, my employer, Vericel, and not Sanofi, will be my employer after the Closing Date for all purposes, including employee benefits. I understand and agree that because, as from the Closing Date, I am or will be an employee of Vericel and not an employee of Sanofi, I am not and will not be entitled to and will not claim or assert any right to any compensation or benefits given by Sanofi to its regular employees, including (without limitation) under any retirement, severance, health and welfare or compensation plans. I understand and agree that this acknowledgment and waiver applies to and survives any period during which I perform services as an employee of Vericel, and will remain in effect even if it is determined that during any period in which I performed services for Vericel I was a "leased employee" or a "common law employee" of Sanofi. I acknowledge that I have carefully read and have voluntarily signed this acknowledgment and waiver and that I fully understand the final and binding effect of this acknowledgment and waiver.

This acknowledgment and waiver is issued for the benefit of Sanofi.

By: Date:

Name
Printed: Phone:

Address:

64 Sidney Street

Cambridge, Massachusetts

LANDLORD

FC 64 SIDNEY, INC.

TENANT

GENZYME CORPORATION

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LEASE

ARTICLE I

RECITALS AND DEFINITIONS

Section 1.1 Recitals.

This Lease (this "**Lease**") is entered into as of November 30, 2005, by and between FC 64 SIDNEY, INC., an Ohio corporation, (the "**Landlord**"), and GENZYME CORPORATION, a Massachusetts corporation (the "**Tenant**").

In consideration of the mutual covenants herein set forth, the Landlord and the Tenant do hereby agree to the terms and conditions set forth in this Lease.

Section 1.2 Definitions.

The following terms shall have the meanings indicated or referred to below:

"**Additional Rent**" means all charges payable by the Tenant pursuant to this Lease other than Annual Fixed Rent, including without implied limitation, the Tenant's parking charges as provided in Section 2.4 and Exhibit A; the Tenant's Tax Expense Allocable to the Premises as provided in Section 3.2; the Tenant's Operating Expenses Allocable to the Premises in accordance with Section 3.3; amounts payable for special services pursuant to Section 3.5; the Landlord's share of any sublease or assignment proceeds pursuant to Section 6.8.

"**Annual Fixed Rent**" - See Exhibit A and Section 3.1.

"**Building**" means the Richards Building containing office space located at 64 Sidney Street, Cambridge, Massachusetts.

"**Commencement Date**" - See Section 2.5.

"**Common Building Areas**" means those portions of the Building which are not part of the Premises and to which the Tenant has appurtenant rights pursuant to Section 2.2.

"**External Causes**" means, collectively, (i) Acts of God, war, civil commotion, fire, flood or other casualty, strikes or other extraordinary labor difficulties, shortages of labor or materials or equipment in the ordinary course of trade, government orders or regulations enacted or promulgated after the date of this Lease, or other cause not reasonably within the Landlord's or Tenant's control and not due to the fault or neglect of the Landlord or Tenant, and (ii) any act, failure to act or neglect of the Tenant or Landlord or the Tenant's or Landlord's servants, agents,

employees, licensees or any person claiming by, through or under the Tenant or Landlord, as the case may be, which delays the Landlord or Tenant, as the case may be, in the performance of any act required to be performed by the Landlord or Tenant, as the case may be, under this Lease.

"**Initial Term**" - See Exhibit A.

"**Land**" means the parcel of land situated in Cambridge, Massachusetts, described in Exhibit B.

"**Landlord's Original Address**" - See Exhibit A.

"**Lease Year**" means each period of one year during the Term commencing on the Commencement Date or on any anniversary thereof.

"**Permitted Uses**" - See Exhibit A.

"**Premises**" - See Exhibit A and Section 2.1.

"**Property**" means the Land and the Building.

"**Tenant's Original Address**" - See Exhibit A.

"**Term**" means the Initial Term (as defined in Exhibit A).

"**University Park**" means the area in Cambridge, Massachusetts, bounded on the North side by Massachusetts Avenue, Green and Blanche Streets, on the East side by Landsdowne, Cross and Purrington Streets, on the South side by Pacific Street and on the West side by Brookline Street, as shown on Exhibit B-l.

Section 1.3 Exhibits.

The Exhibits to this Lease, which are listed herein below, are incorporated herein by this reference and are to be treated as a part of this Lease for all purposes. Undertakings contained in such Exhibits, including any Exhibits not attached but separately delivered to Tenant, are agreements on the part of Landlord and Tenant, as the case may be, to perform the obligations stipulated therein.

EXHIBIT A - Basic Lease Terms
EXHIBIT B - Legal Description
EXHIBIT B-l - Map of University Park
EXHIBIT B-2 - Depiction of Premises
EXHIBIT C - Work Letter
EXHIBIT D - Standard Services
EXHIBIT E - Rules and Regulations
EXHIBIT F - Roof Equipment
EXHIBIT G - Removable Items

ARTICLE II.

PREMISES AND TERM

Section 2.1 Premises.

The Landlord hereby leases to the Tenant, and the Tenant hereby leases from the Landlord, for the Term, the Premises. The Premises shall exclude the office entry and office lobby of the Building, first floor elevator lobby, first floor mail room, atrium, bridges and walkways, the common stairways and stairwells, elevators and elevator wells, boiler room, sprinklers, sprinkler rooms, elevator rooms, mechanical rooms, loading and receiving areas, electric and telephone closets, janitor closets, loading docks and bays, rooftop mechanical penthouses to the extent they house Building equipment, and pipes, ducts, conduits, wires and appurtenant fixtures and equipment serving exclusively or in common other parts of the Building. If the Premises at any time includes less than the entire rentable floor area of any floor of the Building, the Premises shall also exclude the common corridors, vestibules, elevator lobby and toilets located on such floor. The Tenant acknowledges that, except as expressly set forth in this Lease, there have been no representations or warranties made by or on behalf of the Landlord with respect to the Premises, the Building or the Property or with respect to the suitability of any of them for the conduct of the Tenant's business. The taking of possession of the Premises by the Tenant shall conclusively establish that the Premises and the Building were at such time in satisfactory condition, order and repair, latent defects only, excepted. Landlord hereby represents that to the best of Landlord's knowledge, the Building is in compliance with the Americans with Disabilities Act of 1990 ("**ADA**").

Section 2.2 Appurtenant Rights.

The Tenant shall have, as appurtenant to the Premises, the nonexclusive right to use in common with others, subject to reasonable rules of general applicability to occupants of the Building from time to time made by the Landlord of which the Tenant is given notice: (i) the office entry, office vestibules and office lobby of the Building, first floor mail room, the common stairways, elevators, elevator wells, boiler room, elevator rooms, sprinkler rooms, mechanical rooms, electric and telephone closets, janitor closets, loading docks and bays, rooftop mechanical penthouses to the extent they house Building equipment, and the pipes, sprinklers, ducts, conduits, wires and appurtenant fixtures and equipment serving the Premises in common with others, (ii) common walkways and driveways necessary or reasonably convenient for access to the Building, (iii) access to loading area and freight elevator subject to Landlord's reasonable rules and regulations in effect from time to time and applicable to all occupants of the Building and of which the Tenant is given notice, (iv) if the Premises at any time include less than the entire rentable floor area of any floor, the common toilets, corridors, vestibules, and elevator lobby of such floor, and (v) such other common areas and facilities of the Building and the Land necessary for access to or beneficial use of the Premises. Additionally, Tenant shall have the right to locate equipment on the roof of the Building, as designated on Exhibit F ("**Roof**

Equipment"), subject to Landlord's approval, which shall not be unreasonably withheld. Landlord hereby approves and consents to Tenant's use of the roof for the operation, maintenance and replacement of Tenant's existing equipment on the roof of the Building and the location of such existing equipment.

Section 2.3 Landlord's Reservations.

The Landlord reserves the right from time to time, at reasonable times and upon prior written notice to Tenant (except in emergency situations), without unreasonable interference with the Tenant's use: (i) to install, use, maintain, repair, replace and relocate for service to the Premises and/or other parts of the Building, pipes, ducts, conduits, wires and appurtenant fixtures and equipment, wherever located in the Premises or the Building, and (ii) to alter or relocate any other common facility, *provided* that substitutions are substantially equivalent or better. Landlord acknowledges that Tenant has or will have so-called "clean rooms" located within the Premises, and Landlord shall not enter Tenant's "clean rooms" without Tenant's prior consent and without accompaniment by a representative of Tenant, except in case of emergency.

Section 2.4 Parking.

The Landlord shall provide and the Tenant shall pay for parking privileges for use by the Tenant's employees, business invitees and visitors in accordance with Exhibit A. The Landlord shall operate, or cause to be operated, a parking garage known as the 80 Landsdowne Street Garage (the "**Garage**") to serve the Building and other buildings in University Park. The Tenant's parking privileges shall be initially located in the Garage and shall be on a nonexclusive basis (i.e., no reserved spaces); *provided*, *however*, Landlord agrees that the Garage shall be operated so as to maintain therein sufficient spaces to accommodate Tenant's parking privileges described in Exhibit A. However, Tenant's parking privileges may be relocated by Landlord, upon reasonable prior notice to Tenant from Landlord, to another parking garage within University Park. All monthly users will have unlimited access to the Garage twenty-four (24) hours per day, seven days per week.

The Tenant agrees that it and all persons claiming by, through and under it, shall at all times abide by the reasonable rules and regulations promulgated by the Landlord, of which Tenant is given written notice, with respect to the use of the parking facilities provided by the Landlord pursuant to this Lease. If there are any conflicts between the provisions of such rules and regulations and any provisions of this Lease, the provisions of this Lease shall govern.

Charges for Tenant's parking privileges hereunder shall be at the current monthly rate applicable for such spaces and shall constitute Additional Rent and shall be payable monthly to Landlord, during the Term, from and after the Commencement Date at the time and in the fashion in which Annual Fixed Rent under this Lease is payable.

At any time during the Term Landlord shall have the right to assign Landlord's obligations to provide parking, as herein set forth, together with Landlord's right to receive

Additional Rent for such parking spaces as herein provided, to a separate entity created for the purpose of providing the parking privileges set forth herein. In such event, Landlord and Tenant agree to execute and deliver appropriate documentation, including documentation with the new entity, reasonably necessary to provide for the new entity to assume Landlord's obligations to provide the parking privileges to Tenant as specified herein and for the Tenant to pay the Additional Rent attributable to the parking privileges directly to the new entity. Notwithstanding the foregoing, any failure of such assignee to provide to Tenant the parking privileges set forth herein shall be a Landlord default under this Lease.

Section 2.5 Commencement Date.

"**Commencement Date**" means February 8, 2006.

Section 2.6 Extension Options.

Provided that there has been no Event of Default which is uncured and continuing on the part of the Tenant and the Tenant is, as of the date of exercise and as of the commencement date of the Extension Term (as such term is defined below), actually occupying sixty percent (60%) or more of the Premises for its own business purposes, the Tenant shall have the right to extend the Term hereof for two (2) successive periods of three (3) years each (each such three (3) year period an "**Extension Term**").

(a) Such right to extend the Term shall be exercised by the giving of notice by Tenant to Landlord at least nine (9) months prior to the expiration of the then current Term. Upon the giving of such notice, this Lease and the Term hereof shall be extended for an additional term of three (3) years without the necessity for the execution of any additional documents except a document evidencing the Annual Fixed Rent for the Extension Term to be determined as set forth below. Time shall be of the essence with respect to the Tenant's giving notice to extend the Term. In no event shall the Term hereof be extended for more than six (6) years after the expiration of the Initial Term.

(b) Each Extension Term shall be upon all the terms, conditions and provisions of this Lease except the Annual Fixed Rent during each such three (3) year Extension Term shall be the then Extension Fair Rental Value of the Premises for such Extension Term to be determined under this Section 2.6.

(c) For purposes of each Extension Term described in this Section 2.6, the Extension Fair Rental Value of the Premises shall mean ninety-five percent (95%) of the then current fair market annual rent for leases of other space similarly improved, taking into account the condition to which such premises have been improved (excluding Removable Alterations) and the economic terms and conditions specified in this Lease that will be applicable thereto, including the savings, if any, due to the absence or reduction of brokerage commissions; *provided*, *however*, in no event shall the Extension Fair Rental Value be an amount that is less

than the Annual Fixed Rent due during the period immediately preceding such extension. The Landlord and Tenant shall endeavor to agree upon the Extension Fair Rental Value of the Premises within thirty (30) days after the Tenant has exercised an option for an Extension Term. If the Extension Fair Rental Value of the Premises is not agreed upon by the Landlord and the Tenant within this time frame, each of the Landlord and the Tenant shall retain a real estate professional with at least ten (10) years continuous experience in the business of appraising or marketing (including brokering) similar commercial real estate in the Cambridge, Massachusetts area who shall, within thirty (30) days of his or her selection, prepare a written report summarizing his or her conclusion as to the Extension Fair Rental Value. The Landlord and the Tenant shall simultaneously exchange such reports; *provided*, *however*, if either party has not obtained such a report within forty-five (45) days after the last day of the thirty (30) day period referred to above in this Section 2.6, then the determination set forth in the other party's report shall be final and binding upon the parties. If both parties receive reports within such time and the lower determination is within ten percent (10%) of the higher determination, then the average of these determinations shall be deemed to be the Extension Fair Rental Value for the Premises. If these determinations differ by more than ten percent (10%), then the Landlord and the Tenant shall mutually select a person with the qualifications stated above (the "**Final Professional**") to resolve the dispute as to the Extension Fair Rental Value for the Premises. If the Landlord and the Tenant cannot agree upon the designation of the Final Professional within ten (10) days of the exchange of the first valuation reports, either party may apply to the American Arbitration Association, the Greater Boston Real Estate Board, or any successor thereto, for the designation of a Final Professional. Within ten (10) days of the selection of the Final Professional, the Landlord and the Tenant shall each submit to the Final Professional a copy of their respective real estate professional's determination of the Extension Fair Rental Value for the Premises. The Final Professional shall then, within thirty (30) days of his or her selection, prepare a written report summarizing his or her conclusion as to the Extension Fair Rental Value (the "**Final Professional's Valuation**"). The Final Professional shall give notice of the Final Professional's Valuation to the Landlord and the Tenant and such decision shall be final and binding upon the Landlord and the Tenant, unless Landlord or Tenant provide written notice of disapproval to the other party within ten (10) days of its receipt of the Final Professional's Valuation. In the event that Landlord or Tenant disapproves of the Final Professional's Valuation, (i) the disapproving party shall be responsible for payment to all third party appraisers utilized in connection with the process set forth in this Section 2.6, and (ii) the Lease shall be terminated effective three (3) months following the end of the original term (Tenant shall pay rent at the Annual Fixed Rent during such three (3) month period). In the event that Landlord and Tenant do not terminate this Lease pursuant to the preceding sentence and the term of the Lease is extended, each party shall pay the fees and expenses of its real estate professional and counsel, if any, in connection with any proceeding under this paragraph, and one-half of the fees and expenses of the Final Professional. In the event that the commencement of the Extension Term occurs prior to a final determination of the Extension Fair Rental Value therefor (the "**Extension Rent Determination Date**"), then the Tenant shall pay the Annual Fixed Rent at the greater of (i) the rate specified by

the Landlord in its proposed Extension Fair Rental Value or (ii) the then applicable Fixed Rental Rate (such greater amount being referred to as the "**Interim Rent**"). If the Annual Fixed Rent as finally determined for the Extension Term is determined to be greater than the Interim Rent, then the Tenant shall pay to the Landlord the amount of the underpayment for the period from the end of the initial term of this Lease until the Extension Rent Determination Date within thirty (30) days of the Extension Rent Determination Date. If the Annual Fixed Rent as finally determined for the Extension Term is determined to be less than the Interim Rent, then the Landlord shall credit the amount of such overpayment against the monthly installments of Annual Fixed Rent coming due after the Extension Rent Determination Date.

ARTICLE III.

RENT AND OTHER PAYMENTS

Section 3.1 Annual Fixed Rent.

From and after the Commencement Date, the Tenant shall pay, without notice or demand, monthly installments of one-twelfth (l/12th) of the Annual Fixed Rent in effect and applicable to the Premises, in advance, on the first day of each calendar month of the Term and of the corresponding fraction of said one-twelfth (l/12th) for any fraction of a calendar month at the Commencement Date or end of the Term. The Annual Fixed Rent applicable to the Premises during the Term shall be as set forth in Exhibit A.

Section 3.2 Real Estate Taxes.

From and after the Commencement Date, during the Term, the Tenant shall pay to the Landlord, as Additional Rent, the Tenant's Tax Expenses Allocable to the Premises (as such term is hereinafter defined) in accordance with this Section 3.2. The following terms shall have the meanings indicated or referred to below:

(a) "**Tax Year**" means the 12-month period beginning July 1 each year or if the appropriate governmental tax fiscal period shall begin on any date other than July 1, such other date.

(b) "**The Tenant's Tax Expense Allocable to the Premises**" means that portion of the Landlord's Tax Expenses for a Tax Year which bears the same proportion thereto as the rentable floor area of the Premises (from time to time) bears to the total rentable floor area of the Building; *provided, however*, in the event that retail space in the Building is valued by the assessing authorities differently than the office space in the Building due solely on the basis of its use as retail space, the Tenant's Tax Expense Allocable to the Premises with respect to any Tax Year will be adjusted as is appropriate so that the Tenant is responsible for the portion of the Real Estate Taxes which are properly allocable to the Premises, as reasonably determined by Landlord based on information with respect to the assessment process made available by the assessing authorities.

(c) "**The Landlord's Tax Expenses**" with respect to any Tax Year means the aggregate Real Estate Taxes on the Property with respect to that Tax Year, reduced by any abatement or other tax refunds or credits received with respect to that Tax Year, plus any fees paid to third party consultants used by Landlord in connection with the calculation, abatement or refunding of Real Estate Taxes.

(d) "**Real Estate Taxes**" means (i) all taxes and special assessments of every kind and nature assessed by any governmental authority on the Property; and (ii) reasonable expenses of any proceedings for abatement of such taxes or special assessments. Any special assessments to be included within the definition of "Real Estate Taxes" for any Tax Year shall be limited to the amount of the installment (plus any interest thereon) of such special assessment (which shall be payable over the longest period permitted by law) required to be paid during such Tax Year. There shall be excluded from Real Estate Taxes all income, estate, succession, inheritance, excess profit, franchise and transfer taxes; *provided*, *however*, that if at any time during the Term the present system of ad valorem taxation of real property shall be changed so that in lieu of the whole or any part of the ad valorem tax on real property, there shall be assessed on the Landlord a capital levy or other tax on the gross rents received with respect to the Property, or a federal, state, county, municipal or other local income, franchise, excise or similar tax, assessment, levy or charge (distinct from any now in effect) based, in whole or in part, upon any such gross rents, then any and all of such taxes, assessments, levies or charges, to the extent so based, shall be deemed to be included within the term "Real Estate Taxes."

Payments by the Tenant on account of the Tenant's Tax Expenses Allocable to the Premises shall be made monthly at the time and in the fashion herein provided for the payment of Annual Fixed Rent and shall be in the amount of one-twelfth (l/12th) of the Tenant's Tax Expenses Allocable to the Premises for the current Tax Year as reasonably estimated by the Landlord.

Not later than one hundred twenty (120) days after the end of each Tax Year, the Landlord shall render the Tenant a statement in reasonable detail showing for the preceding Tax Year or fraction thereof, as the case may be, Real Estate Taxes for such Tax Year, and any abatements or refunds of such Real Estate Taxes. Expenses incurred in obtaining any tax abatement or refund may be charged against such tax abatement or refund before the adjustments are made for the Tax Year. If at the time such statement is rendered it is determined with respect to any Tax Year, that the Tenant has paid (i) less than the Tenant's Tax Expenses Allocable to the Premises or (ii) more than the Tenant's Tax Expenses Allocable to the Premises, then, in the case of clause "(i)" the Tenant shall pay to the Landlord, as Additional Rent, within thirty (30) days of such statement the amount of such underpayment and, in the case of clause "(ii)" the Landlord shall credit the amount of such overpayment against the next monthly installments of the Tenant's Tax Expenses Allocable to the Premises next thereafter coming due (or refund such overpayment if the Term has expired or earlier terminated within thirty (30) days after such expiration or termination).

To the extent that Real Estate Taxes shall be payable to the taxing authority in installments with respect to periods other than a Tax Year, the statement to be furnished by the Landlord shall be rendered and payments made on account of such installments. Notwithstanding the foregoing provisions, no decrease in Landlord's Tax Expenses with respect to any Tax Year shall result in a reduction of the amount otherwise payable by Tenant if and to the extent any such decrease is attributed by the assessing authority solely to the vacant space in the Building based on information with respect to the assessment process made available by the assessing authorities to Landlord; *provided*, *however*, that in no event shall Landlord collect more than one hundred percent (100%) of the Landlord's Tax Expenses for the tenants of the Building.

Section 3.3 Operating Expenses.

From and after the Commencement Date, during the Term, the Tenant shall pay to the Landlord, as Additional Rent, the Tenant's Operating Expenses Allocable to the Premises, as hereinafter defined, in accordance with this Section 3.3. The following terms shall have the meanings indicated or referred to below:

(a) "**The Tenant's Operating Expenses Allocable to the Premises**" means that portion of the Operating Expenses for the Property which bears the same proportion thereto as the rentable floor area of the Premises bears to the total rentable floor area of the Building.

(b) "**Operating Expenses for the Property**" means Landlord's cost of operating, cleaning, maintaining and repairing the Property, the roads, driveways and walkways for providing access to the Building, and shall include without limitation the cost of services on Exhibit D; premiums for insurance carried pursuant to Section 7.4; the amount deductible from any fire or other casualty insurance claim of the Landlord (which amount is currently $10,000.00, and which amount may be increased during the Term and any Extension Term provided such increase is reasonable and customary); reasonable compensation and all fringe benefits, worker's compensation insurance premiums and payroll taxes paid to, for or with respect to all persons (University Park/Building general manager and below) directly engaged in the managing, operating, maintaining or cleaning of the Property; interior landscaping and maintenance; steam, water, sewer, gas, oil, electricity, telephone and other utility charges (excluding such utility charges which are either separately metered or separately chargeable to Tenant or other Building tenants); cost of building and cleaning supplies used in cleaning the common areas of the Property; the costs of providing conditioned air for HVAC purposes (excluding such costs which are either separately metered or separately chargeable to tenants for additional or special services and those charges related to the cost of operating base Building equipment not used by Tenant)); the costs of routine environmental management programs operated by Landlord (including, but not limited to, periodic testing of air quality, temperature and humidity and the proper operation of the HVAC system); rental costs for equipment used in the operating, cleaning, maintaining or repairing of the common areas of the Property, or the applicable fair market rental charges in the case of equipment owned by Landlord; cost of

cleaning; cost of maintenance, repairs and replacements (other than repairs and replacements reimbursed from contractors under guarantees or made by the Landlord pursuant to the Work Letter, reimbursed from any tenant of the Property or for which Landlord otherwise receives reimbursement); cost of snow removal; cost of landscape, streetscape, graphics, signage and banner maintenance; security services (security shall be building standard security; Tenant shall be responsible for the cost of any additional security services it may require due to its business operations); payments under service contracts with independent contractors; management fees at reasonable rates consistent with the type of occupancy and the service rendered, which such fees are currently $1.07 per rentable square foot; the cost of any capital improvement either required by law or regulation or which reduces the Operating Expenses for the Property or which improves the management and operation of the Property in a manner acceptable to Tenant, which cost shall be amortized in accordance with generally accepted accounting principles, together with interest on the unamortized balance at the base lending rate announced by a major commercial bank designated by the Landlord (the "**Prime Rate**"), or such higher rate (not to exceed the Prime Rate plus three percent [3%]) as may have been paid by the Landlord on funds actually borrowed for the purpose of constructing such capital improvements; charges reasonably allocated to the Building on a prorata basis for the cost of operating, cleaning, maintaining and repairing of University Park common areas, facilities, amenities and open spaces; and all other reasonable and necessary expenses paid in connection with the operation, cleaning, maintenance, repair and administration of the Property. If, for any reason, portions of the rentable area of the Building not included in the Premises were not occupied by tenants or any tenants in the Building were supplied with a different level of standard services than those supplied to the Tenant under this Lease, Landlord's Operating Expenses for the Property shall include the amounts reasonably determined by Landlord which would have been incurred if all of the rentable area in the Building were occupied and were supplied with the same level of standard services as supplied to the Tenant under this Lease. Additionally, if certain services or facilities supplied under this Lease by Landlord do not from time to time, in Landlord's reasonable judgment, serve all of the users in the Building (i.e., office, retail, banking, restaurant, etc.), then the costs associated therewith shall be equitably allocated by Landlord, in its reasonable judgment, exclusively or proportionately to and among only those portions of the total rentable floor area of the Building that are benefiting from such services or facilities.

Operating Expenses for the Property shall not include the following: the Landlord's Tax Expense; cost of repairs or replacements (i) resulting from eminent domain takings, (ii) to the extent reimbursed by insurance, (iii) resulting from correcting defects in the work for which the Landlord is obligated pursuant to the Work Letter or pursuant to agreement with any other tenant in the Building, or those covered by builder's or contractor's warranties or guaranties, (iv) required, above and beyond ordinary periodic maintenance, to maintain in serviceable condition the major structural elements of the Building, including the roof, exterior walls and floor slabs; replacement or contingency reserves; cost of capital improvements except to the extent permitted in the preceding paragraph; ground lease rents or payment of debt obligations; accounting, legal and other professional fees for matters not relating to the normal administration

and operation of the Property; promotional, advertising, public relations or brokerage fees and commissions paid in connection with services rendered for securing or renewing leases; services provided for the exclusive use or benefit of retail tenants in the Building; costs of renovating or otherwise improving space for tenants or other occupants of the Building; any cost of reconstruction or other work occasioned by fire, windstorm, or by any other casualty except as specifically permitted in the preceding paragraph; or by the exercise of the right of eminent domain; interest and principal payments on loans or any rental payments on any ground leases or legal fees or other costs of defending or prosecuting any lawsuits or disputes with any mortgagee or ground lessor; advertising expenses and leasing commissions and any other cost in connection with leasing of space in the Building; any cost or expenditure for which the Landlord is reimbursed, whether by insurance proceeds or otherwise; the cost of constructing and maintaining the 20 Sidney Street Garage or any temporary parking area provided to the Tenant pursuant to Section 2.4. The Landlord's Operating Expenses shall be reduced by the amount of any proceeds, payments, credits or reimbursements which the Landlord receives from sources other than tenants and which are applicable to such Operating Expenses for the Property.

Payments by the Tenant for its share of the Operating Expenses for the Property shall be made monthly at the time and in the fashion herein provided for the payment of Annual Fixed Rent. The amount so to be paid to the Landlord shall be an amount from time to time reasonably estimated by the Landlord to be sufficient to aggregate a sum equal to the Tenant's share of the Operating Expenses for the Property for each fiscal year of Landlord.

Not later than ninety (90) days after the end of each fiscal year of Landlord or fraction thereof during the Term or fraction thereof at the end of the Term, the Landlord shall render the Tenant a statement ("**Landlord's Statement**") in reasonable detail and according to usual accounting practices certified by a representative of the Landlord, showing for the preceding fiscal year of Landlord or fraction thereof, as the case may be, the Operating Expenses for the Property and the Tenant's Operating Expenses Allocable to the Premises. Said statement to be rendered to the Tenant also shall show for the preceding fiscal year of Landlord or fraction thereof, as the case may be, the amounts of Operating Expenses already paid by the Tenant. If at the time such statement is rendered it is determined with respect to any fiscal year, that the Tenant has paid (i) less than the Tenant's Operating Expenses Allocable to the Premises or (ii) more than the Tenant's Operating Expenses Allocable to the Premises, then, in the case of clause "(i)" the Tenant shall pay to the Landlord, as Additional Rent, within thirty (30) days of such statement the amounts of such underpayment and, in the case of clause "(ii)" the Landlord shall credit the amount of such overpayment against the next monthly installment of the Tenant's Additional Rent (or refund such overpayment if the Term has expired or earlier terminated within thirty (30) days after such expiration or termination).

Section 3.4 Other Utility Charges.

During the Term, the Tenant shall pay directly to the provider of the service all separately metered charges for electrical service in the Premises (including, but not limited to, lights,

electrical outlets, VAV boxes and any other special equipment exclusively servicing the Premises, whether located within or outside of the Premises), and shall pay to Landlord as Additional Rent its allocable share of the actual costs charged to Landlord by the providers of water, sewer and other services and utilities which are based on submetered usage.

Section 3.5 Above-standard Services.

If the Tenant requests and the Landlord elects to provide any services to the Tenant in addition to those described in Exhibit D, the Tenant shall pay to the Landlord, as Additional Rent, the amount billed by Landlord for such services at Landlord's rates as are from time to time in effect, which rates shall reflect the actual cost to Landlord of providing such services, including reasonable actual out-of-pocket costs to third parties and reasonable costs associated with the use of internal staff of either Landlord or affiliated entities of Landlord (but only to the extent such costs are not included in Operating Expenses by Landlord). If the Tenant has requested that such services be provided on a regular basis, the Tenant shall, if requested by the Landlord, pay for such services at the time and in the fashion in which Annual Fixed Rent under this Lease is payable. Otherwise, the Tenant shall pay for such additional services within thirty (30) days after receipt of an invoice from the Landlord. Landlord shall have the right from time to time to inspect Tenant's utility meters and to install timers or submeters thereon for purposes of monitoring above-standard service usage.

Section 3.6 No Offsets.

Annual Fixed Rent and Additional Rent shall be paid by the Tenant without offset, abatement or deduction except as specifically permitted herein.

Section 3.7 Tenant's Audit Rights.

Landlord agrees to make its books and records relating to the Operating Expenses for the Property and the Landlord's Tax Expenses available for examination during normal business hours at Landlord's principal office in Cleveland, Ohio upon reasonable notice by Tenant and its representatives; *provided* that any such examination or audit shall be by an employee of Tenant or an accounting firm or property management firm, the fees of which are not determined on a contingent basis, shall be at Tenant's sole cost and expense, and may be conducted only if a notice is sent by Tenant requesting the same not later than ninety (90) days following delivery of Landlord's Statement. If Tenant's audit discloses a discrepancy which involves an overcharge of Tenant's Operating Expenses Allocable to the Premises or the Tenant's Tax Expense Allocable to the Premises for the period covered by such Landlord's Statement, Landlord shall provide Tenant with a credit against the next installment(s) of Tenant's Additional Rent in the amount of the overpayment by Tenant. If such discrepancy as so agreed upon or determined involves an overcharge to Tenant of more than five percent (5%) in the aggregate for such year, Landlord shall be responsible for the reasonable hourly fees of the accounting firm or auditing firm conducting the audit.

ARTICLE IV.

ALTERATIONS

Section 4.1 Consent Required for Tenant's Alterations.

The Tenant may make interior alterations and additions of a decorative or cosmetic nature (as defined below), the cost of which does not exceed $50,000 in the aggregate in any twelve (12) month period, without the need of any approval from Landlord ("**Cosmetic Alterations**"). The Tenant shall not make alterations or additions to the Premises except in accordance with the University Park Tenant Design and Construction Manual and the plans and specifications therefor first approved by the Landlord, which approval shall not be unreasonably withheld, conditioned or delayed. Tenant shall be responsible for Landlord's reasonable out-of-pocket costs for any third party architectural, engineering or other consulting services reasonably required by Landlord in connection with Landlord's review and approval of Tenant's plans and specifications, *provided*, *however*, there shall be no charge in connection with Landlord's review of Tenant's plans for the initial alteration to the Premises. The Landlord shall not be deemed unreasonable for withholding approval of any alterations or additions which (i) would adversely affect any structural or exterior element of the Building, any area or element outside of the Premises, or any facility serving any area of the Building outside of the Premises or any publicly accessible major interior features of the Building, (ii) will require unusual expense to readapt the Premises to normal use unless the Tenant first gives assurance reasonably acceptable to the Landlord that such readaptation will be made prior to the expiration of the Term without expense to the Landlord, or (iii) which would not be compatible with existing mechanical or electrical, plumbing, HVAC or other systems in the Building, or use more than Tenant's prorata share of Building capacities, in each case, as reasonably determined by the Landlord.

Section 4.2 Ownership of Alterations.

All alterations and additions shall be part of the Building and owned by the Landlord except for the items listed on Exhibit G (the "**Removable Items**"), as such Exhibit G may be amended upon the written agreement of Landlord and Tenant. The Removable Items may be removed by Tenant at its option upon the expiration or earlier termination of this Lease, *provided*, *however*, Landlord may require such removal by Tenant provided Landlord advised Tenant i n writing of such requirement prior to the installation of the alteration or addition by Tenant. If Tenant fails to inform Landlord, in writing, at least ten (10) days prior to the installation of the alteration or addition, thereby preventing Landlord from making a determination as to whether it will want such addition or alteration removed from the Premises prior to its installation, then Landlord may require such removal without exception. All movable equipment and furnishings not attached to the Premises shall remain the property of the Tenant and shall be removed by the Tenant upon termination or expiration of this Lease. The Tenant shall repair any damage caused by the removal of any alterations, additions or personal property from the Premises, including the Removable Items. Additionally, Tenant shall be responsible for

decommissioning all lab space in the Premises including the removal of all chemical, radioactive and/or biohazardous materials upon termination or expiration of this Lease.

Section 4.3 Construction Requirements for Alterations.

All construction work by the Tenant shall be done in a good and workmanlike manner employing only first-class materials and in compliance with Landlord's construction rules and regulations then in effect and with all applicable laws and all lawful ordinances, regulations and orders of governmental authority and insurers of the Building. The Landlord or Landlord's authorized agent may (but without any implied obligation to do so) inspect the work of the Tenant at reasonable times and shall give notice of observed defects. All of the Tenant's alterations and additions and installation of furnishings shall be coordinated with any work being performed by the Landlord and in such manner as to maintain harmonious labor relations and not to damage the Building or interfere with Building construction or operation and, except for installation of furnishings, shall be performed by contractors or workmen first approved by the Landlord, which approval the Landlord agrees not to unreasonably withhold or delay. The Tenant, before starting any work, shall receive and comply with Landlord's construction rules and regulations and shall cause Tenant's contractors to comply therewith, shall secure all licenses and permits necessary therefor, shall deliver to the Landlord a statement of the names of all its contractors and subcontractors and the estimated cost of all labor and material to be furnished by them, and shall deliver to Landlord security satisfactory to the Landlord protecting the Landlord against liens arising out of the furnishing of such labor and material; and cause each contractor to carry worker's compensation insurance in statutory amounts covering all the contractors' and subcontractors' employees and comprehensive general public liability insurance with such limits as the Landlord may require reasonably, but in no event less than $1,000,000 (individual)/$3,000,000 (aggregate) or in such other amounts as Landlord may reasonably require covering personal injury and death and property damage (all such insurance to be written in companies approved reasonably by the Landlord and insuring the Landlord, Landlord's managing agent, ground lessor and first mortgagee, and the Tenant as well as the contractors and to contain a requirement for at least thirty (30) days' notice to the Landlord prior to cancellation, nonrenewal or material change), and to deliver to the Landlord certificates of all such insurance.

Section 4.4 Payment for Tenant Alterations.

The Tenant agrees to pay promptly when due the entire cost of any work done on the Premises by the Tenant, its agents, employees or independent contractors, and not to cause or permit any liens for labor or materials performed or furnished in connection therewith to attach to the Premises or the Property and promptly to discharge any such liens which may so attach. If any such lien shall be filed against the Premises or the Property as a result of any work done on the Premises by Tenant, its agents, employees or independent contractors, and the Tenant shall fail to cause such lien to be discharged within ten (10) days after the filing thereof, the Landlord may cause such lien to be discharged by payment, bond or otherwise without investigation as to the validity thereof or as to any offsets or defenses which the Tenant may have with respect to the

amount claimed. The Tenant shall reimburse the Landlord, as Additional Rent, for any reasonable cost so incurred and shall indemnify and hold harmless the Landlord from and against any and all claims, costs, damages, liabilities and expenses (including reasonable attorneys' fees) which may be incurred or suffered by the Landlord by reason of any such lien or its discharge.

ARTICLE V.

RESPONSIBILITY FOR CONDITION OF BUILDING AND PREMISES

Section 5.1 Maintenance of Building and Common Areas by Landlord.

Except as otherwise provided in Article VIII, the Landlord shall make such repairs to all structural elements of the Building, including without limitation, the roof, exterior and other load-bearing walls and floor and floor slabs as may be necessary to keep and maintain the same in good order, condition and repair, and maintain and make, or cause to be maintained and made, such repairs to the Common Building Areas as may be necessary to keep them in good order, condition and repair, including without limitation, the glass in the exterior walls of the Building, and all mechanical systems and equipment serving the Building and not exclusively serving the Premises. The Landlord shall further perform the services set forth on Exhibit D attached hereto. The Landlord shall in no event be responsible to the Tenant for any condition in the Premises or the Building to the extent caused by an act or neglect of the Tenant, or any invitee or contractor of the Tenant. Tenant, its employees, agents and contractors, shall reasonably cooperate in the ongoing conduct of any environmental management programs conducted by Landlord, and shall participate and comply with the reasonable requirements of such programs to the extent Tenant is notified of same in writing and such requirements and recommendations pertain to the operations or maintenance responsibilities of the Tenant under this Lease, such requirements do not unreasonably interfere with Tenant's use of the Premises. Except as otherwise provided in this Lease, Landlord's costs in performing the obligations contained in this Section 5.1 shall be reimbursed by the Tenant to the extent provided in Section 3.3.

Landlord covenants that it shall use reasonable efforts to operate, clean, repair, maintain and manage the Property efficiently and economically.

Section 5.2 Maintenance of Premises by Tenant.

The Tenant shall keep neat and clean and maintain in good order, condition and repair the Premises and every part thereof, including mechanical equipment and other systems exclusively serving the Premises, reasonable wear and tear excepted, and further excepting those repairs for which the Landlord is responsible pursuant to Section 5.1 and damage by fire or other casualty and as a consequence of the exercise of the power of eminent domain, and shall surrender the Premises at the end of the Term in such condition, first removing all goods and effects of the Tenant and, to the extent specified by the Landlord by notice to the Tenant pursuant to Section 4.2, all alterations and additions made by the Tenant, and repairing any damage caused by such removal and restoring the Premises and leaving them clean and neat. The Tenant shall

be responsible for the cost of repairs which may be made necessary by reason of damages to common areas in the Building by the Tenant, or any of the contractors or invitees of the Tenant. All of Tenant's data, networking, security and other systems and equipment, shall be maintained by Tenant. Tenant shall, upon request, provide evidence reasonably satisfactory to Landlord that it has available the necessary expertise to properly conduct and carry out this responsibility, either through persons employed by the Tenant or through contracts with independent service organizations, or a combination thereof.

Section 5.3 Delays in Landlord's Services.

The Landlord shall not be liable to the Tenant for any compensation or reduction of rent by reason or inconvenience or annoyance or for loss of business arising from the necessity of the Landlord or its agents entering the Premises in accordance with Section 2.3 hereof for any purposes authorized in this Lease, or for repairing the Premises as required or permitted herein or any portion of the Building. In case the Landlord is prevented or delayed from making any repairs, alterations or improvements, or furnishing any services or performing any other covenant or duty to be performed on the Landlord's part, by reason of any External Cause, the Landlord shall not be liable to the Tenant therefor, nor, except as expressly otherwise provided in this Lease, shall the Tenant be entitled to any abatement or reduction of rent by reason thereof, nor shall the same give rise to a claim in the Tenant's favor that such failure constitutes actual or constructive, total or partial, eviction from the Premises *provided*, *however*, Landlord shall use reasonable, good faith efforts not to interfere with Tenant's conduct of its business on the Premises.

The Landlord reserves the right to stop any service or utility system when necessary by reason of accident or emergency, until necessary repairs have been completed; *provided*, *however*, that in each instance of stoppage, the Landlord shall exercise diligent efforts to eliminate the cause thereof. Except in case of emergency repairs, the Landlord will give the Tenant reasonable advance notice of any contemplated stoppage and will use diligent efforts to avoid unnecessary inconvenience to the Tenant by reason thereof. In no event shall the Landlord have any liability to the Tenant for the unavailability of heat, light or any utility or service to be provided by the Landlord to the extent that such unavailability is caused by External Causes, *provided*, *however*, that the Landlord is obligated to exercise diligent efforts to restore the services or utility systems' operation.

Notwithstanding anything contained herein to the contrary, in the event Landlord shall fail to provide the services it is required to provide to Tenant hereunder (a "**Service Failure**") other than as a result of Tenant's acts or omissions or External Causes, and as a result thereof, Tenant is reasonably unable to use or conduct its operations on part or all of the Premises for more than three (3) business days, Tenant shall be entitled to proportionate abatement of rent for the period Tenant is reasonably unable to use or conduct its operations in part or all of the Premises. If a Service Failure is a result of any cause other than Tenant's acts or omissions, and results in a loss of service to the Premises and to more than fifty percent (50%) of the Building,

Tenant shall have the right to terminate this Lease if Landlord fails or is unable to restore such services within six (6) months from the date of interruption and Tenant is reasonably unable to use or conduct its operations in a substantial part or all of the Premises. If a Service Failure is a result of any cause other than Tenant's acts or omissions, and results in a loss of service to the Premises but to less than fifty percent (50%) of the Building, Tenant shall have the right to terminate this Lease if Landlord fails or is unable to restore such services within three (3) months from the date of interruption and Tenant is reasonably unable to use or conduct its operations in a substantial part or all of the Premises. Tenant shall have the right to terminate this Lease as aforesaid by written notice to Landlord at any time after the expiration of such six (6) month period, and such termination shall be effective as of the date of Tenant's notice.

ARTICLE VI.

TENANT COVENANTS

The Tenant covenants during the Term and for such further time as the Tenant occupies any part of the Premises:

Section 6.1 Permitted Uses.

The Tenant shall occupy the Premises only for the Permitted Uses, and shall not injure or deface the Premises or the Property, nor permit in the Premises any auction sale. The Tenant shall give written notice to the Landlord of any materials on OSHA's right to know list or which are subject to regulation by any other federal, state, municipal or other governmental authority and which the Tenant intends to have present at the Premises. The Tenant shall comply with all requirements of public authorities and of the Board of Fire Underwriters in connection with methods of storage, use and disposal thereof. The Tenant shall not permit in the Premises any nuisance, or the emission from the Premises of any objectionable noise, odor or vibration, nor use or devote the Premises or any part thereof for any purpose which is contrary to law or ordinance or liable to invalidate or increase premiums for any insurance on the Building or its contents or liable to render necessary any alteration or addition to the Building, nor commit or permit any waste.in or with respect to the Premises, nor generate, store or dispose of any oil, toxic substances, hazardous wastes, or hazardous materials (each a, "**Hazardous Material**"), or permit the same in or on the Premises or any parking areas provided for under this Lease, unless first giving Landlord notice thereof. The Tenant may use radioactive materials and experiment with laboratory animals on the Premises so long as Tenant complies, at all times during the Term, with any and all applicable laws, regulations, ordinances, orders and the like. The Tenant shall not dump, flush or in any way introduce any Hazardous Materials into septic, sewage or other waste disposal systems serving the Premises or any parking areas provided for under this Lease, except in accordance with all applicable laws, regulations, ordinances, orders and the like or as permitted by government license or permit obtained by the Tenant. The Tenant will indemnify the Landlord and its successors and assigns against all claims, loss, cost, and expense, including reasonable attorneys' fees, incurred as a result of any contamination of the Building or any other

portion of University Park with Hazardous Materials by the Tenant or Tenant's contractors, licensees, invitees, agents, servants or employees. With respect to any Permitted Use, Tenant shall provide to Landlord certified copies of all regulatory filings, licenses and permits Tenant has been required by law to obtain prior to handling any such Hazardous Materials, together with evidence reasonably satisfactory to Landlord that such licenses and/or permits are valid and in full force and effect. Tenant shall have received all such licenses and/or permits prior to commencement of its operations in the Premises. From time to time hereafter, upon thirty (30) days advance notice from Landlord, Tenant will provide Landlord with such updated certified copies of licenses and/or permits as the Landlord may reasonably request. Upon written request by the Landlord, Tenant shall immediately remove any material or substances which are not in compliance with this Section 6.1.

Section 6.2 Laws and Regulations.

The Tenant shall comply with all federal, state and local laws, regulations, ordinances, executive orders, federal guidelines, and similar requirements in effect from time to time, including, without limitation, any such requirements pertaining to employment opportunity, anti-discrimination, affirmative action and traffic mitigation.

Section 6.3 Rules and Regulations; Signs.

The Tenant shall not obstruct in any manner any portion of the Property not hereby leased; shall not permit the placing of any signs, curtains, blinds, shades, awnings, aerials or flagpoles, or the like, visible from outside the Premises; and shall comply with all reasonable rules and regulations of uniform application to all occupants of the Building now or hereafter made by the Landlord, of which the Tenant has been given notice, for the care and use of the Property and the parking facilities relating thereto. The Landlord shall not be liable to the Tenant for the failure of other occupants of the Building to conform to any such rules and regulations, but Landlord shall make reasonable efforts to enforce such rules and regulations on a uniform basis.

The Landlord shall provide a Building directory in the office lobby with Tenant's name and floor locations within the Building listed therein and Building standard signage at the entry of the Premises.

Section 6.4 Safety Compliance.

The Tenant shall keep the Premises equipped with all safety appliances required by law or ordinance or any other regulations of any public authority because of any non-office use made by the Tenant (as opposed to major safety appliances required generally for the Property and the Building, for which the Landlord shall be responsible) and to procure all licenses and permits so required because of such use and, if requested by the Landlord, do any work so required because of such use, it being understood that the foregoing provisions shall not be construed to broaden in any way the Tenant's Permitted Uses. Tenant shall conduct such periodic tests, evaluations or

certifications of safety appliances and equipment as are required or recommended in accordance with generally accepted standards to ensure that such safety appliances and equipment remain in good working order, and shall provide to Landlord copies of such reports, evaluations and certifications as requested by Landlord.

Section 6.5 Landlord's Entry.

The Tenant shall permit the Landlord and its agents, after reasonable notice (except in the case of emergencies) and with accompaniment by a representative of Tenant to enter the Premises at all reasonable hours for the purpose of inspecting or of making repairs as required or permitted to be made herein to the same, and for the purpose of showing the Premises to prospective purchasers and mortgagees at all reasonable times after reasonable prior notice to Tenant and to prospective tenants during the last twelve (12) months of the Term *provided* that in connection with such entry, Tenant may provide procedures reasonably designed so as not to jeopardize Tenant's trade secrets, proprietary technology or critical business operations. Except in case of an emergency, Landlord shall not enter Tenant's so-called "clean rooms" without Tenant's prior consent and without accompaniment by a representative of Tenant.

Section 6.6 Floor Load.

The Tenant shall not place a load upon any floor in the Premises exceeding the floor load per square foot of area which such floor was designed to carry and which is allowed by law. Further, Tenant shall not move any safe, vault or other heavy equipment in, about or out of the Premises except in such manner, in such areas and at such time as the Landlord shall in each instance reasonably authorize. The Tenant's machines and mechanical equipment shall be placed and maintained by the Tenant at the Tenant's expense in settings sufficient to absorb or prevent vibration or noise that may be transmitted to the Building structure or to any other space in the Building.

Section 6.7 Personal Property Tax.

The Tenant shall pay promptly when due all taxes which may be imposed upon personal property (including, without limitation, fixtures and equipment) in the Premises to whomever assessed. Tenant shall have the right to contest the validity or amount of any such taxes by appropriate proceedings diligently conducted in good faith.

Section 6.8 Assignment and Subleases.

The Tenant shall not assign, mortgage, pledge, hypothecate or otherwise transfer this Lease, or sublet (which term, without limitation, shall include granting of concessions, licenses and the like) the whole or any part of the Premises without, in each instance, having first received the consent of the Landlord which consent shall not be unreasonably withheld or delayed. Except as specifically permitted herein, any assignment or sublease made without such consent shall be void. Notwithstanding anything to the contrary contained in this Section, Tenant

shall have the right to assign or otherwise transfer this Lease or the Premises, or part of the Premises, without obtaining the prior consent of Landlord, (a) to its parent corporation or to a wholly owned subsidiary or to a corporation which is wholly owned by the same corporation which wholly owns Tenant, *provided* that (i) the transferee shall, prior to the effective date of the transfer, deliver to Landlord instruments evidencing such transfer and its agreement to assume and be bound by all the terms, conditions and covenants of this Lease to be performed by Tenant, all in form reasonably acceptable to Landlord, and (ii) at the time of such transfer there shall not be an uncured Event of Default under this Lease; or (b) to the purchaser of all or substantially all of its assets, or to any entity into which the Tenant may be merged or consolidated (along with all or substantially all of its assets) (the "**Acquiring Company**"), *provided* that (i) the net assets of the Acquiring Company at the time of the transfer or merger shall not be less than the net assets of Tenant at the time of the signing of this Lease, (ii) the Acquiring Company continues to operate the business conducted in the Premises consistent with the Permitted Uses described in Exhibit A hereto, (iii) the Acquiring Company shall assume in writing, in form acceptable to Landlord, all of Tenant's obligations under this Lease, (iv) Tenant shall provide to Landlord such additional information regarding the Acquiring Company as Landlord shall reasonably request, and (v) Tenant shall pay Landlord's reasonable expenses actually incurred in connection therewith. Unless Landlord shall have objected to such assignment or transfer by Tenant within ten (10) business days following Landlord's receipt of the information or items described in (b)(i) and (iii) above, Landlord shall be deemed to have waived its right to object thereto. The transfers described in this paragraph are referred to hereinafter as "**Permitted Transfers**."

Whether or not the Landlord consents, or is required to consent, to any assignment or subletting, and except for Permitted Transfers, the Tenant named herein shall remain fully and primarily liable for the obligations of the tenant hereunder, including, without limitation, the obligation to pay Annual Fixed Rent and Additional Rent provided under this Lease. The Tenant shall give the Landlord notice of any proposed sublease or assignment, whether or not the Landlord's consent is required hereunder, specifying the provisions of the proposed subletting or assignment, including (i) the name and address of the proposed subtenant or assignee, (ii) a copy of the proposed subtenant's or assignee's most recent annual financial statement, (iii) all of the terms and provisions upon which the proposed subletting or assignment is to be made and such other information concerning the proposed subletting or assignment is to be made and such other information concerning the proposed subtenant or assignee as the Tenant has obtained in connection with the proposed subletting or assignment. The Tenant shall reimburse the Landlord promptly after receiving a written invoice thereof for reasonable legal and other expenses actually incurred by the Landlord in connection with any request by the Tenant for consent to any assignment or subletting. If this Lease is assigned, and Tenant is in default beyond any grace or cure period under the Lease, the Landlord may, upon prior written notice to Tenant, at any time and from time to time, collect rent and other charges from the assignee, sublessee or occupant and apply the net amount collected to the rent and other charges herein reserved, but no such assignment, subletting, occupancy or collection shall be deemed a waiver of the prohibitions contained in this Section 6.8 or the acceptance of the assignee, sublessee or

occupant as a tenant, or a release of the Tenant from the further performance by the Tenant of covenants on the part of the Tenant herein contained. The Tenant shall pay to the Landlord fifty percent (50%) of any amounts the Tenant actually receives from any subtenant or assignee as rent, additional rent or other forms of compensation or reimbursement for the sublease, assignment or occupancy of the Premises, after deducting therefrom (i) the then due and payable proportionate monthly share of Annual Fixed Rent, Additional Rent and all other monies due to Landlord pursuant to this Lease (allocable in the case of a sublease to that portion of the Premises being subleased), and (ii) all reasonable and customary sublease expenses (including but not limited to bonafide brokerage fees, fit up expenses, free rent periods, marketing costs and attorney's fees) incurred by Tenant. The preceding sentence shall not apply to any Permitted Transfers. The consent by the Landlord to an assignment or subletting shall not be construed to relieve the Tenant from obtaining the express consent in writing of the Landlord to any further assignment or subletting.

ARTICLE VII.

INDEMNITY AND INSURANCE

Section 7.1 Indemnity.

To the maximum extent this agreement may be made effective according to law, the Tenant agrees to defend, indemnify and save harmless the Landlord from and against all claims, loss, or damage of whatever nature arising from any breach by Tenant of any obligation of Tenant under this Lease beyond applicable notice and cure periods or from any act, omission or negligence of the Tenant, or the Tenant's contractors, licensees, invitees, agents, servants or employees, or arising from any accident, injury or damage whatsoever caused to any person or property, occurring after the date that possession of the Premises is first delivered to the Tenant and until the end of the Term and thereafter, so long as the Tenant is in occupancy of any part of the Premises, in or about the Premises or arising from any accident, injury or damage occurring outside the Premises but within the Building, on the Land, on the access roads and ways, in the parking facilities provided pursuant to the Lease, within University Park or any adjacent area maintained by Landlord or any individual or entity affiliated with Landlord, where such accident, injury or damage results from an act or omission on the part of the Tenant or the Tenant's agents or employees, licensees, invitees, servants or contractors, *provided* that the foregoing indemnity shall not include any cost or damage arising from any act, omission or negligence of the Landlord, or the Landlord's contractors, licensees, invitees, agents, servants or employees.

Landlord agrees to defend, indemnify and save harmless Tenant from legal action, damages, loss, liability and any other expense in connection with loss of life, bodily or personal injury or property damage, arising from or out of the intentional or willful misconduct or gross negligence of Landlord, its agents, employees, licensees, servants, invitees or contractors, which occur in or about the Premises, outside the Premises but within the Building, on the Land, on the access roads and ways, in the parking facilities provided pursuant to the Lease, within University

Park or any adjacent area maintained by Landlord, except to the extent that such loss of life, bodily or personal injury or property damage is due to the willful misconduct or act, omission or neglect of Tenant, its agents, contractors, employees, licensees, invitees or servants.

The foregoing indemnities and hold harmless agreements shall include indemnity against reasonable attorneys' fees and all other costs, expenses and liabilities incurred in connection with any such claim or proceeding brought thereon, and the defense thereof.

Section 7.2 Liability Insurance.

The Tenant agrees to maintain in full force from the date upon which the Tenant first enters the Premises for any reason, throughout the Term, and thereafter, so long as the Tenant is in occupancy of any part of the Premises, a policy of commercial general liability insurance under which the Landlord (and the Building's managing agent, any ground lessor and any holder of a first mortgage on the Property of whom the Tenant is notified in writing by the Landlord, collectively, the "**Additional Named Insureds**") and the Tenant are named as insureds, and under which the insurer provides a contractual liability endorsement insuring against all cost, expense and liability arising out of or based upon any and all claims, accidents, injuries and damages described in Section 7.1, in the broadest form of such coverage from time to time available. Each such policy shall be noncancel1able and nonamendable (to the extent that any proposed amendment reduces the limits or the scope of the insurance required in this Lease) with respect to the Landlord and such ground lessor and first mortgagee without thirty (30) days' prior notice to the Landlord and the Additional Named Insureds and a certificate of insurance shall be delivered to the Landlord. The minimum limits of liability of such insurance as of the Commencement Date shall be Three Million Dollars ($3,000,000.00) per occurrence and Three Million Dollars ($3,000,000.00) in the aggregate for combined bodily injury (or death) and damage to property, and from time to time during the Term such limits of liability shall be increased to reflect such higher limits as are customarily required pursuant to new leases of space in the Boston/Cambridge area with respect to similar properties and similar uses.

Section 7.3 Alterations; Improvements and Betterments; Personal Property at Risk.

The Tenant agrees to maintain in full force at all times throughout the Term, policy(s) of all risk property damage insurance, naming Landlord (and the Additional Named Insureds) and the Tenant as insureds as their interests may appear, covering all of Tenant's leasehold improvements and alterations to the extent of their full replacement costs as updated from time to time during the Term.

The Tenant agrees that all of the furnishings, fixtures, equipment, effects and property of every kind, nature and description of the Tenant and of all persons claiming by, through or under the Tenant which, during the continuance of this Lease or any occupancy of the Premises by the Tenant or anyone claiming under the Tenant which, during the continuance of this Lease or any occupancy of the Premises by the Tenant or anyone claiming under the Tenant, may be on the Premises or elsewhere in the Building or on the Land or parking facilities provided hereby, shall

be at the sole risk and hazard of the Tenant, and if the whole or any part thereof shall be destroyed or damaged by fire, water or otherwise, or by the leakage or bursting of water pipes, steam pipes, or other pipes, by theft or from any other cause, no part of said loss or damage is to be charged to or be borne by the Landlord, except that the Landlord shall in no event be exonerated from any liability to the Tenant (subject to Section 7.5 hereof) for any injury, loss, damage or liability to the extent same is caused by Landlord's, or its agents', employees', servants' or contractors', negligence or willful misconduct.

Section 7.4 Landlord's Insurance.

The Landlord shall carry, or cause to be carried, such casualty and liability insurance upon and with respect to operations at the Building as may from time to time be deemed reasonably prudent by the Landlord or required by any mortgagee holding a mortgage thereon or any ground lessor of the Land, and in any event, insurance against loss by fire and the risks now covered by extended coverage endorsement No. 4 in an amount at least equal to the full replacement cost of the Building, exclusive of foundations, excavations and footings.

Section 7.5 Waiver of Subrogation.

Any insurance carried by either party, or caused to be carried by either party, with respect to the Building, Land, Premises, parking facilities or any property therein or occurrences thereon shall, without further request by either party, include a clause or endorsement denying to the insurer rights of subrogation against the other party to the extent rights have been waived by the insured prior to occurrence of any claim, damage, injury or loss. Each party, notwithstanding any provisions of this Lease to the contrary, hereby waives any claims or rights of recovery against the other for injury or loss, including, without limitation, injury or loss caused by negligence of such other party to the extent covered by insurance actually carried or required to be carried hereunder.

ARTICLE VIII.

CASUALTY AND EMINENT DOMAIN

Section 8.1 Restoration Following Casualties.

If, during the Term, the Building or the Premises shall be damaged by fire or casualty, subject to the exceptions and limitations provided below, the Landlord shall proceed promptly to exercise diligent efforts to restore, or cause to be restored, the Building or the Premises, as the case may be, to substantially the condition thereof just prior to time of such damage, but the Landlord shall not be responsible for delay in such restoration which may result from External Causes or due to any act, failure to act or neglect of Tenant or Tenant's servants, agents, employees or licensees. The Landlord shall have no obligation to expend in the reconstruction of the Building more than the actual amount of insurance proceeds made available to the Landlord by its insurer and not retained by the Landlord's mortgagee or ground lessor. Any restoration of

the Building or the Premises shall be altered to the extent necessary to comply with then current laws and applicable codes.

Section 8.2 Landlord's Termination Election.

If the Landlord reasonably determines that the amount of insurance proceeds available to the Landlord is insufficient to cover the cost of restoring the Building or if in the reasonable opinion of the Landlord the Building has been so damaged that it is appropriate for the Landlord to raze or substantially alter the Building, then the Landlord may terminate this Lease by giving notice to the Tenant within ninety (90) days after the date of the casualty or such later date as is required to allow the Landlord a reasonable time to make either such determination, but in no event later than one hundred twenty (120) days from the date of the casualty. Any such termination shall be effective on the date designated in such notice from the Landlord, but in any event, not later than ninety (90) days after such notice, and if no date is specified, effective upon the delivery of such notice.

Section 8.3 Tenant's Termination Election.

After any casualty which materially impairs the use of a material portion of the Premises, unless the Landlord has earlier advised the Tenant of the Landlord's election to terminate this Lease pursuant to Section 8.2, or to restore the Premises and maintain this Lease in effect pursuant to Section 8.1, the Tenant shall have the right, after the expiration of the ninety (90)-day period provided in Section 8.2 above, to give a written notice to the Landlord requiring the Landlord within ten (10) days thereafter to exercise or waive any right of the Landlord to terminate this Lease pursuant to Section 8.2 as a result of such casualty and if the Landlord fails to give timely notice to the Tenant waiving any right under Section 8.2 to terminate this Lease based on such casualty, the Tenant shall be entitled, at any time until the Landlord has given notice to the Tenant waiving such termination right, to give notice to the Landlord terminating this Lease. Where the Landlord is obligated to restore the Premises, unless such restoration is completed within nine (9) months from the date of the casualty or taking, such period to be subject, however, to extension where the delay in completion of such work is due to External Causes or due to any act, failure to act or neglect of Tenant or Tenant's servants, agents, employees or licensees (but in no event beyond twelve (12) months from the date of the casualty or taking), the Tenant shall have the right to terminate this Lease at any time after the expiration of such 9 -month or 12 -month period, as the case may be, until the restoration is substantially completed, such termination to take effect as of the date of the Tenant's notice.

Section 8.4 Casualty at Expiration of Lease.

If the Premises shall be damaged by fire or casualty in such a manner that the Premises cannot, in the ordinary course, reasonably be expected to be repaired within one hundred twenty (120) days from the commencement of repair work and such damage occurs within the last two (2) years of the Term (as the same may have been extended prior to such fire or casualty), either party shall have the right, by giving notice to the other not later than sixty (60) days after such

damage, to terminate this Lease, whereupon this Lease shall terminate as of the date of such notice.

Section 8.5 Eminent Domain.

Except as hereinafter provided, if the Premises, or such portion thereof as to render the balance (if reconstructed to the maximum extent practicable in the circumstances) unsuitable for the Tenant's purposes, shall be taken by condemnation or right of eminent domain, the Landlord or the Tenant shall have the right to terminate this Lease by notice to the other of its desire to do so, *provided* that such notice is given not later than thirty (30) days after the effective date of such taking. If so much of the Building shall be so taken that the Landlord reasonably determines that it would be appropriate to raze or substantially alter the Building, the Landlord shall have the right to terminate this Lease by giving notice to the Tenant of the Landlord's desire to do so not later than thirty (30) days after the effective date of such taking.

Should any part of the Premises be so taken or condemned during the Term, and should this Lease be not terminated in accordance with the foregoing provisions, the Landlord agrees to use reasonable efforts to put what may remain of the Premises into proper condition for use and occupation as nearly like the condition of the Premises prior to such taking as shall be practicable, subject, however, to applicable laws and codes then in existence and to the availability of sufficient proceeds from the eminent domain taking not retained by any mortgagee or ground lessor.

Section 8.6 Rent After Casualty or Taking.

If the Premises shall be damaged by fire or other casualty, the Annual Fixed Rent and Additional Rent shall be justly and equitably abated and reduced according to the nature and extent of the loss of use thereof suffered by the Tenant. In the event of a taking which reduces the area of the Premises, a just proportion of the Annual Fixed Rent shall be abated for the period of such taking.

Section 8.7 Taking Award.

The Landlord shall have and hereby reserves and accepts, and the Tenant hereby grants and assigns to the Landlord, all rights to recover for damages to the Building and the Land, and the leasehold interest hereby created, and to compensation accrued or hereafter to accrue by reason of such taking, damage or destruction, as aforesaid, and by way of confirming the foregoing, the Tenant hereby grants and assigns to the Landlord, all rights to such damages or compensation. Nothing contained herein shall be construed to prevent the Tenant from prosecuting in any condemnation proceedings a claim for relocation expenses, improvements made by Tenant in the Premises, and Tenant's trade fixtures and equipment in the Premises, *provided* that such action shall not affect the amount of compensation otherwise recoverable by the Landlord from the taking authority pursuant to the preceding sentence.

ARTICLE IX.

DEFAULT

Section 9.1 Tenant's Default.

Each of the following shall constitute an Event of Default:

(a) Failure on the part of the Tenant to pay the Annual Fixed Rent, Additional Rent or other charges for which provision is made herein on or before the date on which the same become due and payable, if such condition continues for ten (10) days after written notice from the Landlord that the same are past due; *provided*, *however*, an Event of Default shall occur hereunder without any obligation of Landlord to give any notice if Landlord has given Tenant written notice under this Section 9.1(a) on more than two (2) occasions during the twelve (12) month interval preceding such failure to pay by Tenant.

(b) Failure on the part of the Tenant to perform or observe any other term or condition contained in this Lease if the Tenant shall not cure such failure within thirty (30) days after notice from the Landlord to the Tenant thereof, *provided* that in the case of breaches of obligations under this Lease which cannot be cured within thirty (30) days through the exercise of due diligence, so long as the Tenant commences such cure within thirty (30) days, and the Tenant diligently pursues such cure, such breach shall not be deemed to create an Event of Default.

(c) The taking of the estate hereby created on execution or by other process of law; or a judicial declaration that the Tenant is bankrupt or insolvent according to law; or any assignment of the property of the Tenant for the benefit of creditors; or the appointment of a receiver, guardian, conservator, trustee in bankruptcy or other similar officer to take charge of all or any substantial part of the Tenant's property by a court of competent jurisdiction; or the filing of an involuntary petition against the Tenant under any provisions of the bankruptcy act now or hereafter enacted if the same is not dismissed within ninety (90) days; the filing by the Tenant of any voluntary petition for relief under provisions of any bankruptcy law now or hereafter enacted.

If an Event of Default shall occur, then, in any such case, whether or not the Term shall have begun, the Landlord lawfully may, immediately or at any time thereafter, give notice to the Tenant specifying the Event of Default and this Lease shall come to an end on the date specified therein as fully and completely as if such date were the date herein originally fixed for the expiration of the Lease Term, and the Tenant will then quit and surrender the Premises to the Landlord, but the Tenant shall remain liable as hereinafter provided.

Section 9.2 Damages.

In the event that this Lease is terminated pursuant to Section 9.1 above, Tenant covenants to pay punctually to Landlord all the sums ("**Periodic Payments**") and perform all the obligations which Tenant covenants in this Lease to pay and to perform in the same manner and to the same extent and at the same time as if this Lease had not been terminated. In calculating the amounts to be paid by Tenant under the foregoing covenant, Tenant shall be credited with the net proceeds of any rent obtained by reletting the Premises, after deducting all of Landlord's reasonable expenses in connection with such reletting, including, without limitation, all repossession costs, brokerage commissions, fees for legal services and expenses for preparing the Premises for reletting. The Landlord may (i) relet the Premises, or any part or parts thereof, for a term or terms which may, at the Landlord's option, exceed or be equal to or less than the period which would otherwise have constituted the balance of the Term, and may grant such concessions and free rent as the Landlord in its reasonable commercial judgment considers advisable or necessary to relet the same, and (ii) make such alterations, repairs and improvements in the Premises as the Landlord in its reasonable commercial judgment considers advisable or necessary to relet the same. The Landlord agrees to use diligent, good faith efforts to relet the Premises, but the Landlord may, at its option, seek to rent other properties of the Landlord prior to reletting the Premises. Subject to the obligations of Landlord in the preceding sentence, no action of the Landlord or failure to relet in accordance with the foregoing shall operate to release or reduce the Tenant's liability hereunder.

At any time following the termination of this Lease, Landlord may elect to receive, in lieu of receiving further Periodic Payments, an amount (the "**Lump Sum Payment**") equal to the excess, if any, of the discounted present value of the total rent reserved for the remainder of the Term after such election over the then discounted present fair rental value of the Premises for the remainder of the Term after such election. In calculating the rent reserved, there shall be included, in addition to the Annual Fixed Rent and all Additional Rent (assuming that Real Estate Taxes and Operating Expenses for the Property will increase annually by a reasonable amount), the value of all other considerations agreed to be paid or performed by Tenant over the remainder of the Term.

Section 9.3 Cumulative Rights.

The specific remedies to which the Landlord may resort under the terms of this Lease are cumulative and are not intended to be exclusive of any other remedies or means of redress to which it may be lawfully entitled in case of any breach or threatened breach by the Tenant of any provisions of this Lease. In addition to the other remedies provided in this Lease, the Landlord shall be entitled to the restraint by injunction of the violation or attempted or threatened violation of any of the covenants, conditions or provisions of this Lease or to a decree compelling specific performance of any such covenants, conditions or provisions. Nothing contained in this Lease shall limit or prejudice the right of the Landlord to prove for and obtain in proceedings for bankruptcy, insolvency or like proceedings by reason of the termination of this Lease, an amount equal to the maximum allowed by any statute or rule of law in effect at the time when, and

governing the proceedings in which, the damages are to be proved, whether or not the amount be greater, equal to, or less than the amount of the loss or damages referred to above.

Section 9.4 Landlord's Self-help.

If the Tenant shall at any time default in the performance of any obligation under this Lease, the Landlord shall have the right, but not the obligation, after expiration of any applicable notice and grace period, upon reasonable, but in no event more than ten (10) days' notice to the Tenant (except in case of emergency in which case no notice need be given), to perform such obligation. The Landlord may exercise its rights under this Section without waiving any other of its rights or releasing the Tenant from any of its obligations under this Lease.

Section 9.5 Enforcement Expenses.

Each party hereto shall promptly reimburse the other for all costs and expenses, including without limitation reasonable legal fees, incurred by such party in exercising and enforcing its rights under this Lease following the other party's failure to comply with its obligations hereunder, whether or not such failure constitutes an Event of Default pursuant to Sections 9.1 or 9.7 hereof. If either party hereto be made or becomes a party to any litigation commenced by or against the other party by or against a third party, or incurs costs or expenses related to such litigation, involving any part of the Property and the enforcement of any of the rights. Obligations or remedies of such party, then the party becoming involved in any such litigation because of a claim against such other party hereto shall receive from such other party hereto all costs and reasonable attorneys' fees incurred by such party in such litigation.

Section 9.6 Late Charges and Interest on Overdue Payments.

In the event that any payment of Annual Fixed Rent or Additional Rent shall remain unpaid for a period of ten (10) days after the same are due, there shall become due to the Landlord from the Tenant, as Additional Rent and as compensation for the Landlord's extra administrative costs in investigating the circumstances of late rent, a late charge of two percent (2%) of the amount overdue. In addition, any Annual Fixed Rent and Additional Rent not paid when due shall bear interest from the date due to the Landlord until paid at the variable rate (the "**Default Interest Rate**") equal to the higher of (i) the rate at which interest accrues on amounts not paid when due under the terms of the Landlord's financing for the Building, as from time to time in effect, and (ii) one hundred and twenty-five percent (125%) of the Prime Rate (as defined in Section 3.3(b) hereof).

Section 9.7 Landlord's Right to Notice and Cure.

The Landlord shall in no event be in default in the performance of any of the Landlord's obligations hereunder unless and until the 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, after notice by the Tenant to the Landlord expressly specifying wherein the Landlord has failed to perform any such obligation.

ARTICLE X.

MORTGAGEES' AND GROUND LESSORS' RIGHTS

Section 10.1 Subordination and Attornment.

This Lease shall, at the election of the holder of any mortgage or ground lease on the Property, be subject and subordinate to any and all mortgages or ground leases on the Property, so that the lien of any such mortgage or ground lease shall be superior to all rights hereby or hereafter vested in the Tenant, *provided* that such mortgagee or ground lessor shall have entered into a non-disturbance and attornment agreement with Tenant, the form of which shall be furnished by the mortgagee or ground lessor, as the case may be, with such reasonable modifications as Tenant shall request within a reasonable time period. Tenant hereby agrees that Tenant will recognize as its landlord under this Lease and shall attorn to any person succeeding to the interest of Landlord in respect of the land and the buildings on or in which the Premises is contained, upon any foreclosure of any mortgage upon such land or buildings or upon the execution of any deed in lieu of such foreclosure in respect of such mortgage. If requested, Tenant shall execute and deliver an instrument or instruments confirming its attornment as provided herein; *provided*, *however*, that no successor-in-interest shall be bound by any payment of rent for more than one (1) month in advance, or any amendment or modification of this lease made without the express written consent of the mortgagee under such mortgage. Any action for the foreclosure of an existing mortgage on the Property shall not terminate this Lease or cause this Lease to be terminable by Tenant by reason of the termination of any such ground lease unless Tenant is specifically named and joined in any such action and unless a judgment is obtained therein against Tenant resulting in a termination of this Lease.

Section 10.2 Prepayment of Rent not to Bind Mortgagee.

No Annual Fixed Rent, Additional Rent, or any other charge payable to the Landlord shall be paid more than thirty (30) days prior to the due date thereof under the terms of this Lease and payments made in violation of this provision shall (except to the extent that such payments are actually received by a mortgagee or ground lessor) be a nullity as against such mortgagee or ground lessor and the Tenant shall be liable for the amount of such payments to such mortgagee or ground lessor.

Section 10.3 Tenant's Duty to Notify Mortgagee; Mortgagee's Ability to Cure.

No act or failure to act on the part of the Landlord which would entitle the Tenant under the terms of this Lease, or by law, to be relieved of the Tenant's obligations to pay Annual Fixed Rent or Additional Rent hereunder or to terminate this Lease, shall result in a release or termination of such obligations of the Tenant or a termination of this Lease unless (i) the Tenant

shall have first given written notice of the Landlord's act or failure to act to the Landlord's mortgagees and ground lessors of record, if any, of whose identity and address the Tenant shall have been given notice, specifying the act or failure to act on the part of the Landlord which would give basis to the Tenant's rights; and (ii) such mortgagees and ground lessors, after receipt of such notice, have failed or refused to correct or cure the condition complained of within a reasonable time thereafter, which shall include a reasonable time for such mortgagee and ground lessor, (but in no event more than thirty (30) days after receipt of such notice) to obtain possession of the Property if possession is necessary for the mortgagee or ground lessor to correct or cure the condition and if the mortgagee or ground lessor notifies the Tenant of its intention to take possession of the Property and correct or cure such condition.

Section 10.4 Estoppel Certificates.

The Tenant shall from time to time, upon not less than fifteen (15) days' prior written request by the Landlord, which such request shall include a copy of such estoppel certificate, execute, acknowledge and deliver to the Landlord a statement in writing certifying to the Landlord or an independent third party, with a true and correct copy of this Lease attached thereto, to the extent such statements continue to be true and accurate, (i) that this Lease is unmodified and in full force and effect (or, if there have been any modifications, that the same is in full force and effect as modified and stating the modifications); (ii) that the Tenant has no knowledge of any defenses, offsets or counterclaims against its obligations to pay the Annual Fixed Rent and Additional Rent and to perform its other covenants under this Lease (or if there are any defenses, offsets, or counterclaims, setting them forth in reasonable detail); (iii) that there are no known uncured defaults of the Landlord or the Tenant under this Lease (or if there are known defaults, setting them forth in reasonable detail); (iv) the dates to which the Annual Fixed Rent, Additional Rent and other charges have been paid; (v) that the Tenant has accepted, is satisfied with, and is in full possession of the Premises, including all improvements, additions, and alterations thereto required to be made by Landlord under the Lease; (vi) that the Landlord has satisfactorily complied with all of the requirements and conditions precedent to the commencement of the Term of the Lease as specified in the Lease; (vii) the Term, the Commencement Date, and any other relevant dates, and that the Tenant has been in occupancy since the Commencement Date and paying rent since the specified dates; (viii) that no monetary or other considerations, including, but not limited to, rental concessions for Landlord, special tenant improvements or Landlord's assumption of prior lease obligations of Tenant have been granted to Tenant by Landlord for entering into Lease, except as specified; (ix) that Tenant has no notice of a prior assignment, hypothecation, or pledge of rents or of the Lease; (x) that the Lease (as same may be amended) represents the entire agreement between Landlord and Tenant; and (xi) such other matters with respect to the Tenant and this Lease as the Landlord may reasonably request in writing. On the Commencement Date, the Tenant shall, at the request of the Landlord, promptly execute, acknowledge and deliver to the Landlord a statement in writing that the Commencement Date has occurred, that the Annual Fixed Rent has begun to accrue and that the Tenant has taken occupancy of the Premises. Any statement delivered pursuant to this

Section may be relied upon by any prospective purchaser, mortgagee or ground lessor of the Premises and shall be binding on the Tenant, but any such statement shall not amend this Lease and shall not be binding on the Tenant against Landlord. Landlord shall from time to time, upon not less than fifteen (15) days' prior written request by the Tenant, execute, acknowledge and deliver to the Tenant a statement in writing certifying to the Tenant or an independent third party, with a true and correct copy of this Lease attached thereto, to the extent such statements continue to be true and accurate (i) that this Lease is unmodified and in full force and effect (or, if there have been any modifications, that the same is in full force and effect as modified and stating the modifications); (ii) that the Landlord has no knowledge of any defenses, offsets or counterclaims against its obligations to perform its covenants under this Lease (or if there are any defenses, offsets, or counterclaims, setting them forth in reasonable detail); (iii) that there are no known uncured defaults of the Tenant or the Landlord under this Lease (or if there are known defaults, setting them forth in reasonable detail); (iv) the dates to which the Annual Fixed Rent, Additional Rent and other charges have been paid, (v) that the Tenant is in full possession of the Premises, including all improvements, additions and alterations thereto required to be made by Landlord under the Lease; (vi) that the Tenant has satisfactorily complied with all of the requirements and conditions precedent to the commencement of the Term of the Lease as specified in the Lease; (vii) that the Tenant has been in occupancy since the Commencement Date and paying rent since the specified dates; (viii) that no monetary or other considerations, including, but not limited to, rental concessions for Landlord, special tenant improvements or Landlord's assumption of prior lease obligations of Tenant have been granted to Tenant by Landlord for entering into the Lease, except as specified: (ix) that Landlord has no notice of a prior assignment, hypothecation, or pledge of rents or of the Lease; (x) that the Lease represents the entire agreement between Landlord and Tenant; and (xi) such other matters with respect to the Tenant and this Lease as the Tenant may reasonably request. Any statement delivered pursuant to this Section may be relied upon by any prospective lender of Tenant and shall be binding on the Landlord.

ARTICLE XI.

MISCELLANEOUS

Section 11.1 Notice of Lease.

The Tenant agrees not to record this Lease, but upon request of either party, both parties shall execute and deliver a Notice of Lease in form appropriate for recording or registration acknowledging the Commencement Date, and if this Lease is terminated before the Term expires, an instrument in such form acknowledging the date of termination.

Section 11.2 Notices.

Whenever any notice, approval, consent, request, election, offer or acceptance is given or made pursuant to this Lease, it shall be in writing. Communications and payments shall be addressed, if to the Landlord, at the Landlord's Address for Notices as set forth in Exhibit A or at

such other address as may have been specified by prior notice to the Tenant; and if to the Tenant, at the Tenant's Address for Notices as set forth in Exhibit A or at such other address as may have been specified by prior notice to the Landlord. Any communication so addressed shall be deemed duly given on the earlier of (i) the date received if hand-delivered by either party or mailed by a reputable same-day delivery service, (ii) the day following the day of mailing if mailed by a reputable overnight delivery service, or (iii) on the third business day following the day of mailing if mailed by registered or certified mail, return receipt requested. If the Landlord by notice to the Tenant at any time designates some other person to receive payments or notices, all payments or notices thereafter by the Tenant shall be paid or given to the agent designated until notice to the contrary is received by the Tenant from the Landlord.

Section 11.3 Successors and Limitation on Liability on the Landlord.

The obligations of this Lease shall run with the land, and this Lease shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns, except that the original Landlord named herein and each successor Landlord shall be liable only for obligations accruing during the period of its ownership. The obligations of the Landlord shall be binding upon the assets of the Landlord consisting of an equity ownership of the Property (and including any proceeds realized from the sale of such Property) but not upon other assets of the Landlord and neither the Tenant, nor anyone claiming by, under or through the Tenant, shall be entitled to obtain any judgment creating personal liability on the part of the Landlord or enforcing any obligations of the Landlord against any assets of the Landlord other than an equity interest in the Property.

Section 11.4 Waivers by the Landlord or Tenant.

The failure of the Landlord or the Tenant to seek redress for violation of, or to insist upon strict performance of, any covenant or condition of this Lease, shall not be deemed a waiver of such violation nor 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 the Landlord of Annual Fixed Rent or Additional Rent with knowledge of the breach of any covenant of this Lease shall not be deemed a waiver of such breach. No provision of this Lease shall be deemed to have been waived by the Landlord or the Tenant, unless such waiver be in writing signed by the waiving party. No consent or waiver, express or implied, by the Landlord or the Tenant to or of any breach of any agreement or duty shall be construed as a waiver or consent to or of any other breach of the same or any other agreement or duty.

Section 11.5 Acceptance of Partial Payments of Rent.

No acceptance by the Landlord of a lesser sum than the Annual Fixed Rent and Additional Rent then due shall be deemed to be other than a partial installment of such rent due, 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 the Landlord may accept such check or payment without prejudice to the Landlord's right to recover the balance of such installment

or pursue any other remedy in this Lease provided. The delivery of keys to any employee of the Landlord or to the Landlord's agent or any employee thereof shall not operate as a termination of this Lease or a surrender of the Premises.

Section 11.6 Interpretation and Partial Invalidity.

If any term of this Lease, or the application thereof to any person or circumstances, shall to any extent be invalid or unenforceable, the remainder of this Lease, or the application of such term to persons or circumstances other than those as to which it is invalid or unenforceable, shall not be affected thereby, and each term of this Lease shall be valid and enforceable to the fullest extent permitted by law. The titles of the Articles are for convenience only and not to be considered in construing this Lease. This Lease contains all of the agreements of the parties with respect to the subject matter thereof and supersedes all prior dealings between them with respect to such subject matter.

Section 11.7 Quiet Enjoyment.

So long as the Tenant pays Annual Fixed Rent and Additional Rent, performs all other Tenant covenants of this Lease and observes all conditions hereof, the Tenant shall peaceably and quietly have, hold and enjoy the Premises free of any claims by, through or under the Landlord.

Section 11.8 Brokerage.

Each party represents and warrants to the other that it has had no dealings with any broker or agent in connection with this Lease other than Meredith & Grew and Trammell Crow Company and shall indemnify and hold harmless the other from claims for any brokerage commission by any other broker or agent claiming same by, through or under the indemnifying party.

Section 11.9 Surrender of Premises and Holding Over.

The Tenant shall surrender possession of the Premises on the last day of the Term and the Tenant waives the right to any notice of termination or notice to quit. The Tenant covenants that upon the expiration or sooner termination of this Lease, it shall, without notice, deliver up and surrender possession of the Premises in the same condition in which the Tenant has agreed to keep the same during the continuance of this Lease and in accordance with the terms hereof, reasonable wear and tear and damage by fire or other casualty or eminent domain taking and damage by the negligence or willful misconduct of Landlord or its agents, contractors or employees excepted, first removing therefrom all goods and effects of the Tenant and any leasehold improvements Landlord specified for removal pursuant to Section 4.2, and repairing all damage caused by such removal. Upon the expiration of this Lease or if the Premises should be abandoned by the Tenant, or this Lease should terminate for any cause, and at the time of such expiration, vacation, abandonment or termination, the Tenant or Tenant's agents, subtenants or any other person should leave any property of any kind or character on or in the Premises, the

fact of such leaving of property on or in the Premises shall be conclusive evidence of intent by the Tenant, and individuals and entities deriving their rights through the Tenant, to abandon such property so left in or upon the Premises, and such leaving shall constitute abandonment of the property. Landlord shall have the right and authority without notice to the Tenant or anyone else, to remove and destroy, or to sell or authorize disposal of such property, or any part thereof, without being in any way liable to the Tenant therefor and the proceeds thereof shall belong to the Landlord as compensation for the removal and disposition of such property.

If the Tenant fails to surrender possession of the Premises upon the expiration or sooner termination of this Lease, the Tenant shall pay to Landlord, as rent for any period after the expiration or sooner termination of this Lease an amount equal to one hundred fifty percent (150%) of the Annual Fixed Rent and the Additional Rent required to be paid under this Lease as applied to any period in which the Tenant shall remain in possession. Acceptance by the Landlord of such payments shall not constitute a consent to a holdover hereunder or result in a renewal or extension of the Tenant's rights of occupancy. Such payments shall be in addition to and shall not affect or limit the Landlord's right of re-entry, Landlord's right to collect such damages as may be available at law, or any other rights of the Landlord under this Lease or as provided by law.

Section 11.10 Ground Lease.

This Lease is in all respects subject to the ground lease (the "**Ground Lease**") between the Landlord's predecessor in interest as lessee and the Massachusetts Institute of Technology ("**MIT**") as lessor dated April 20, 1986, as amended by that certain First Amendment to Construction and Lease Agreement dated as of December 15, 1997, and that certain Second Amendment to Construction and Lease Agreement dated as of June 12, 2000. If the Ground Lease shall terminate during the Term for any reason whatsoever, except as may otherwise be agreed in the Non-Disturbance Agreement, this Lease shall be terminable by Landlord in its sole discretion with the same force and effect as if such termination date had been named herein as the date of expiration hereof.

Section 11.11 Security Deposit.

INTENTIONALLY OMITTED

Section 11.12 Financial Reporting.

Tenant shall from time to time (but at least annually) on the anniversary of the Lease provide Landlord with financial statements of Tenant, together with related statements of Tenant's operations for Tenant's most recent fiscal year then ended, certified by an independent certified public accounting firm.

Section 11.13 Cambridge Employment Plan.

The Tenant agrees to sign an agreement with the Employment and Training Agency designated by the City Manager of the City of Cambridge as provided in subsections (a) - (g) of Section 24-4 of Ordinance Number 1005 of the City of Cambridge, adopted April 23, 1984.

Section 11.14 Parking and Transportation Demand Management.

Tenant covenants and agrees to work cooperatively with Landlord to develop a parking and transportation demand management ("**PTDM**") program that comprises part of a comprehensive PTDM for University Park. In connection therewith, the use of single occupant vehicle commuting will be discouraged and the use of alternative modes of transportation and/or alternative work hours will be promoted. Without limitation of the foregoing, Tenant agrees that its PTDM program (and Tenant will require in any sublease or occupancy agreement permitting occupancy in the Premises that such occupant's PTDM program) will include offering a subsidized MBTA transit pass, either constituting a full subsidy or a subsidy in an amount equal to the maximum deductible amount therefore allowed under the federal tax code, to any employee working in the Premises requesting one. Tenant agrees to comply with the traffic mitigation measures required by the City of Cambridge, and Tenant shall otherwise comply with all legal requirements of the City of Cambridge pertaining thereto.

IN WITNESS WHEREOF, this Lease has been executed and delivered as of the date first above written as a sealed instrument.

LANDLORD:

FC 64 SIDNEY, INC.,
a Massachusetts corporation

By: /s/ Michael Farley
Michael Farley
Vice President

TENANT:

GENZYME CORPORATION,
a Massachusetts corporation

By: /s/ Henri Termeer
Title: CEO

EXHIBIT A

Basic Lease Terms

Annual Fixed Rent for the Term:	$35.00 per rentable square foot
Security Deposit:	$
Initial Term:	Sixty (60) months, commencing on the Commencement Date (as set forth in Section 2.5), and expiring on February 8, 2011.
Landlord's Original Address:	FC 64 Sidney Street, Inc. Terminal Tower 50 Public Square, Suite 1100 Cleveland, Ohio 44113-2267 Attention: James Ratner
Landlord's Address for Notices:	Landlord's Original Address with copies in like manner to: Forest City Commercial Management, Inc. 64 Sidney Street Cambridge, Massachusetts 02139-4234 Attention: Michael Farley
Tenant's Address for Notices:	Genzyme Corporation Metro West Place 15 Pleasant Street Connector Framingham, MA 01701 Attn: Evan Lebson With copies in like manner to: Genzyme Corporation 500 Kendall Street Cambridge, MA 02142 Attn: Bob Hesslein, Esq. and Palmer & Dodge LLP 111 Huntington Avenue At Prudential Center Boston, MA 02199-7613 Attn: Thomas G. Schnorr, Esq.
Premises:	45,161 total rentable square feet (rsf) comprising that portion of the 1st, 2nd and 3rd floors of the Building depicted on Exhibit B-2 to the Lease.

Parking Privileges:	During the Term, Landlord shall provide, and Tenant shall pay for, sixty-eight (68) parking passes. During the Term the Tenant shall pay the market rate from time to time in effect for parking passes provided by Landlord as aforesaid. Market rate shall be reasonably determined by Landlord based on comparable parking spaces and usage rights available in the Kendall Square/Cambridge Center area. Tenant shall have the right to lease additional parking passes, as available, on a month to month basis. Visitor parking will also be available within the parking garage at standard hourly rates. Should Tenant expand the Premises in the future, the Parking Privileges shall be increased on the basis of one and one-half parking passes per each one thousand square feet of space leased.
Permitted Uses:	Research and development and general office use.

EXHIBIT B

Legal Description

A parcel of land situated in the City of Cambridge, Middlesex County, Commonwealth of Massachusetts, being more particularly bounded and described as follows:

Beginning at the intersection of the relocated southeasterly street line of Sidney Street and the southwesterly street line of a private way (formerly Auburn Street);

Thence running S 51° 25’ 00” E along said southwesterly line of a private way, a distance of 131.51 feet, to a point;

Thence running along the line of a private way on the following three (3) courses:

S 38° 25’ 13” W, a distance of 176.99 feet to a point;

Westerly on a curve to the left having a radius of 60.00 feet, an arc length of 62.88 feet to a point;

and N 51° 34’ 47” W, a distance of 91.97 feet to a point on the aforesaid relocated southeasterly street line of Sidney Street;

Thence running N 38° 25’ 13” E, along said southeasterly line, a distance of 17.52 feet, to a point;

Thence running S 51° 34’ 47” E, along a jog in said southeasterly line, a distance of 4.00 feet, to a point;

Thence running N 38° 25’ 13” E, along said southeasterly line, a distance of 201.18 feet, to the point of beginning.

The above-described parcel contains 27,580 square feet, more or less, or 0.6332 acres, more or less and is shown as Lot 4(A) on a plan entitled “Plan of Land in Cambridge, Massachusetts, 64 Sidney Street” prepared by Cullinan Engineering Co., Inc., which plan is recorded with the Middlesex S.D. Registry of Deeds in Book 19753, Page 54.

Included within the above-described property are the following parcels of registered land:

a. That parcel of land shown on Land Court Plan 7631A;
b. A portion of the land shown as Lot Bl on Land Court Plan 3993C; and
c. A portion of the land shown as Lot C on Land Court Plan 3993B.

EXHIBIT B-1

Map of University Park

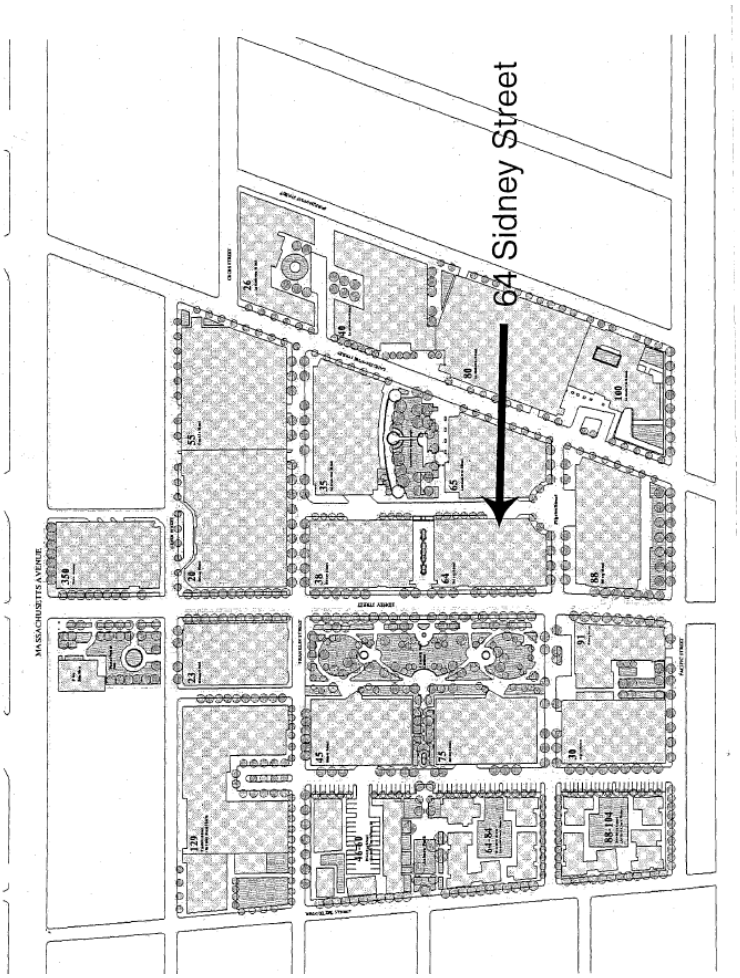


Exhibit B-1 - 2

EXHIBIT B-2

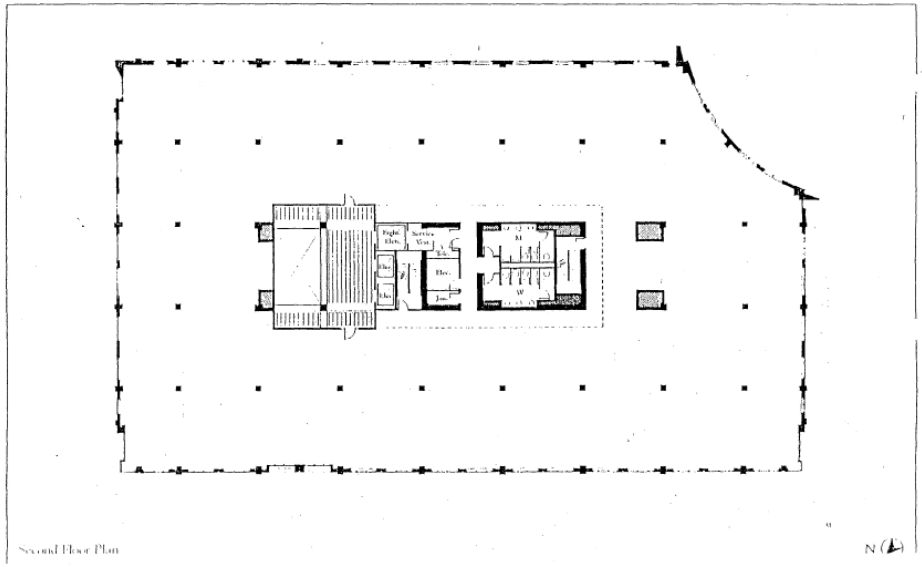
Depiction of Premises

Exhibit B-1
The Richards Building
Third Floor Plans

The
Richards
Building

64 Sidney Street
Cambridge, MA 02139

UNIVERSITY
PARK
AT MIT



Second Floor Plan

N

EXHIBIT C

Exhibit B-2- 3

EXHIBIT C

Work Letter

1. Landlord shall provide to Tenant an allowance (the "**Leasehold Improvements Allowance**") equal to (i) the product of Five and 00/100 Dollars ($5.00) times (ii) the rentable square footage of the Premises (for a total of Two Hundred Twenty-Five Thousand Eight Hundred Five and 00/100 Dollars ($225,805.00)), for application to the costs and expenses, more particularly set forth below, incurred by or on behalf of Tenant. If Tenant incurs costs in excess of the Leasehold Improvements Allowance, then all such costs shall be born solely by Tenant. Any unused Leasehold Improvements Allowance may be applied as rent credit(s) at the beginning of the Term.

2. The application of the Leasehold Improvement Allowance by Landlord shall be limited to payment of the following costs and expenses incurred by or on behalf of Tenant in connection with leasehold improvements to the Premises: the actual documented and verified cost pursuant to Tenant's design and construction contracts, including without limitation the associated contractor's overhead and profit and general conditions, incurred in the construction of the leasehold improvements to the Premises, except for the making of improvements, installation of items which are moveable rather than permanent improvements,(but excluding cabling), examples of which may include furniture, telephone communications and security equipment, and bench-top laboratory equipment items such as microscopes.

3. During the construction of any leasehold improvements with respect to which Tenant desires to have the Leasehold Improvements Allowance applied, and in accordance with the commercially reasonable terms and conditions typically imposed upon a landlord pursuant to a construction loan agreement, such as, without limitation, retainage, lien waiver, and other requisition conditions, Tenant shall, on a monthly basis (as the Tenant's contractor submits to Tenant its application for payment), deliver to Landlord a requisition for payment showing the costs of the leasehold improvements in question and the amount of the current payment requested from Landlord for disbursement from the Leasehold Improvements Allowance within thirty (30) days after receipt of Tenant's requisition. Payments made on account of Tenant's requisitions shall be made from the Leasehold Improvement Allowance. Following the completion of any such leasehold improvements, Tenant shall deliver to the Landlord, within ninety (90) days of completion, a statement showing the final costs of such leasehold improvements, the amounts paid to date, or on behalf of the Tenant, and any amounts available for release of retainage.

EXHIBIT D

Standard Services

Landlord shall provide, or cause to be provided, the following standard services throughout the Term, which services may be modified from time to time by Landlord:

A. Regular maintenance of interior plants and exterior landscaping of the Building and all University Park common areas.

B. Regular maintenance, sweeping and snow removal of exterior areas around the Building, parking areas and throughout University Park.

C. Complete interior and exterior cleaning of all windows two times per year.

D. Daily, weekday maintenance of hallways, passenger elevators, common area bathrooms, lobby areas and vestibules.

E. Periodic cleaning of stairwells, freight elevators, and back of house areas.

F. Daily, weekday rubbish removal of all common area trash receptacles.

G. Daily, weekday cleaning of tenant space in a manner comparable to similar first-class office space in the Cambridge area.

H. Maintenance and repair of all base Building mechanical, electrical, plumbing and life safety systems and all other building systems serving the common areas.

I. Operation and maintenance of Building surveillance and alarm systems, links to the University Park command center, and security officer services in the Building and throughout University Park as appropriate in Landlord's reasonable determination.

J. Conditioned air for HVAC purposes shall be provided to the Premises from central mechanical equipment and shall be available 24 hours per day, 7 days per week; *provided*, *however*, Landlord reserves the right, pursuant to Section 3.5 of this Lease, to charge for conditioned air provided after normal business hours (8am - 6pm) if Landlord reasonably determines that demand for such conditioned air is not consistently needed throughout the Building during such non-business hours. Any charges for conditioned air shall include Landlord's reasonable estimate of the cost of energy, additional equipment maintenance and wear and tear associated with such after hours use, but shall not include a surcharge or profit to Landlord.

K. All utilities for all interior common areas and exterior building lighting.

L. Regular maintenance of banners, building directories and other building standard directional signage and amenities.

M. Reasonably adequate water and sewer service to the Premises.

EXHIBIT E

Rules and Regulations

DEFINITIONS

Wherever in these Rules and Regulations the word "**Tenant**" is used, it shall be taken to apply to and include the Tenant and its agents, employees, invitees, licensees, contractors, any subtenants and is to be deemed of such number and gender as the circumstances require. The word "**Premises**" is to be taken to include the space covered by the Lease. The word "**Landlord**" shall be taken to include the employees and agents of Landlord. Other capitalized terms used but not defined herein shall have the meanings set forth in the Lease. Any consents or approvals required of Landlord herein shall not be unreasonably withheld or delayed.

GENERAL USE OF BUILDING

A. Space for admitting natural light into any public area or tenanted space of the Building shall not be covered or obstructed by Tenant except in a manner reasonably approved by Landlord.

B. Toilets, showers and other like apparatus shall be used only for the purpose for which they were constructed.

C. Intentionally Omitted.

D. No sign, advertisement, notice or the like, shall be used in the Building by Tenant (other than at its office or as permitted in the Lease). If Tenant violates the foregoing, Landlord may remove the violation without liability and may charge all costs and expenses incurred in so doing to Tenant.

E. Tenant shall not throw or permit to be thrown anything out of windows or doors or down passages or elsewhere in the Building, or bring or keep any pets therein, or commit or make any indecent or improper acts or noises. In addition, Tenant shall not do or permit anything which will obstruct, injure, annoy or interfere with other tenants or those having business with them, or affect any insurance rate on the Building or violate any provision of any insurance policy on the Building.

F. Unless expressly permitted by the Landlord in writing:

(1) No additional locks or similar devices shall be attached to any door or window and no keys other than those provided by the Landlord shall be made for any door. If more than two keys for one lock are desired by the Tenant, the Landlord may provide the same upon payment by the Tenant. Upon termination of this lease or of the Tenant's possession, the Lessee shall surrender all keys to the Premises and shall explain to the Landlord all combination locks on safes, cabinets and vaults.

(2) In order to insure proper use and care of the Premises Tenant shall not install any shades, blinds, or awnings or any interior window treatment without consent of Landlord. Blinds must be building standard.

(3) All doors to the Premises are to be kept closed at all times except when in actual use for entrance to or exit from such Premises. The Tenant shall be responsible for the locking of doors and the closing of any transoms and windows in and to the Premises. Any damage or loss resulting from violation of this rule shall be paid for by the Tenant.

(4) The Tenant shall not install or operate any steam or internal combustion engine, boiler, machinery in or about the Premises, or carry on any mechanical business therein. All equipment of any electrical or mechanical nature shall be placed in settings which absorb and prevent any vibration, noise or annoyance.

G. Landlord shall designate the time when and the method whereby freight, small office equipment, furniture, safes and other like articles may be brought into, moved or removed from the Building or Premises, and to designate the location for temporary disposition of such items.

H. In order to insure proper use and care of the Premises Tenant shall not allow anyone other than Landlord’s employees or contractors to clean the Premises without Landlord’s permission.

I. The Premises shall not be defaced in any way. No changes in the HVAC, electrical fixtures or other appurtenances of said Premises shall be made without the prior approval of Landlord and in accordance with Landlord’s construction rules and regulations.

J. For the general welfare of all tenants and the security of the Building, Landlord may require all persons entering and/or leaving the Building on weekends and holidays and between the hours of 6:00 p.m. and 8:00 a.m. to register with the Building attendant or custodian by signing his name and writing his destination in the Building, and the time of entry and actual or anticipated departure, or other procedures deemed necessary by Lessor. Landlord may deny entry during such hours to any person who fails to provide satisfactory identification.

K. No animals, birds, pets, and no bicycles or vehicles of any kind shall be brought into or kept in or about said Premises or the lobby or halls of the Building. Tenant shall not cause or permit any unusual or objectionable odors, noises or vibrations to be produced upon or emanate from said Premises.

L. Unless specifically authorized by Landlord, employees or agents of Landlord shall not perform for nor be asked by Tenant to perform work other than their regularly assigned duties.

M. Landlord shall have the right to prohibit any advertising by Tenant which, in Landlord’s reasonable opinion tends to impair the reputation of the Building or its desirability as

an office building and, upon written notice from Landlord, Tenant shall promptly discontinue such advertising.

N. Canvassing, soliciting and peddling in the Building is prohibited and Tenant shall cooperate to prevent the same from occurring.

O. All parking, Building operation, or construction rules and regulations which may be established from time to time by Landlord on a uniform basis shall be obeyed.

P Tenant shall not place a load on any floor of said Premises exceeding the floor load limits for the Building. Landlord reserves the right to prescribe the weight and position of all safes and heavy equipment.

Q. Tenant shall not install or use any air conditioning or heating device or system other than those approved by Landlord.

R. Landlord shall have the right to make such other and further reasonable rules and regulations as in the judgment of Landlord, may from time to time be needful for the safety, appearance, care and cleanliness of the Building and for the preservation of good order therein, and Tenant shall be given reasonable notice of same.

S. The access road and loading areas, parking areas, sidewalks, entrances, lobbies, halls, walkways, elevators, stairways and other common area provided by Landlord shall not be obstructed by Tenant, or used for other purpose than for ingress and egress.

T. In order to insure proper use and care of the Premises Tenant shall not install any call boxes or communications systems or wiring of any kind without Landlord’s permission and direction.

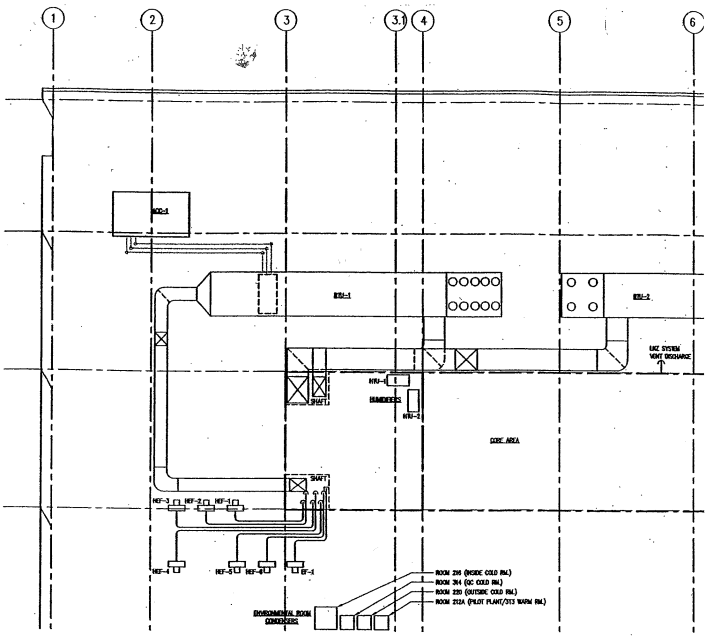
U. In order to insure proper use and care of the Premises Tenant shall not manufacture any commodity, or prepare or dispense for sale, except through vending machines for the benefit of employees and invitees of Tenant, any foods or beverages, tobacco, flowers, or other commodities or articles without the written consent of Landlord.

V. In order to insure use and care of the Premises Tenant shall not enter any janitors’ closets, mechanical or electrical areas, telephone closets, loading areas, roof or Building storage areas without the written consent of Landlord.

W. In order to insure proper use and care of the Premises Tenant shall not place doormats in public corridors without consent of Landlord.

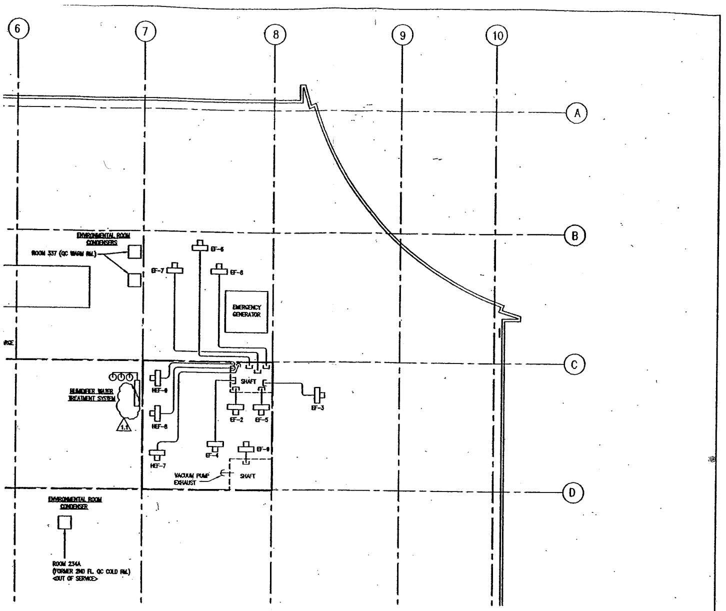
EXHIBIT F

Roof Equipment



EXHAUST FAN SCHEDULE

ITEM NO.	NOMINAL FLOW (CFM)	EXHAUST SOURCE ROOM NO.	DESCRIPTION	FLOOR	EQUIPMENT
EF-1	300	308	JANITOR CLOSET	3	1 CEILING REGISTER
EF-2	150	253	SOILED GARMENT	2	1 CEILING REGISTER
EF-3	2,390	225	CLASSROOM	2	3 CEILING REGISTER
EF-4	900	313,324	MEN/WOMEN CHANGE	3	2 CEILING REGISTER
EF-5	200	NONE	BLDG. MAINT. STORAGE	1	1 CEILING REGISTER
EF-6	300	338	CRYO/SOLV STORAGE	3	1 CEILING REGISTER
EF-7	300	338,348	QA VALIDATION STORAGE	3	2 CEILING REGISTER
EF-8	600	322	MEDIA PREP/STERILITY	3	1 CEILING REGISTER
EF-9	1,650	362	MECHANICAL ROOM	3	1 CEILING REGISTER
HEF-1	990	217	<OUT OF SERVICE>	2	#04048
HEF-2	990	217	<OUT OF SERVICE>	2	—
HEF-3	990	217	<OUT OF SERVICE>	2	#04035
HEF-4	990	217	<OUT OF SERVICE>	2	#04054
HEF-5	990	305	PERMANENT	3	#04079
HEF-6	990	369	<OUT OF SERVICE>	3	—
HEF-7	990	254	<OUT OF SERVICE>	2	—
HEF-8	990	338	CELL CULTURE ANALYSIS TESTING	3	#04087
HEF-9	990	368	<OUT OF SERVICE>	3	#04113



OFFICIAL COPY

QA Signature *[signature]* Implementation Date *5/1/02*

95030.1

"OFFICIAL MASTER DRAWING"

THIS RELEASE: REV. NO. / DESCRIPTION / RELEASE DATE		
R1.1	CHANGES PER R.DIORIO	11/22/2000

REVISION HISTORY

REV. NO.	DESCRIPTION	REV. DATE
R	WALK DOWN 8/6/98	4/27/99
R1.1	CHANGES PER R.DIORIO	11/22/2000

genzyme *tissue repair*

Genzyme Corporation
64 Sidney Street
Cambridge, MA 02139
(617) 494-8484

TITLE: 64 SIDNEY STREET FACILITY HVAC ROOF PLAN	HVAC DRAWING
SCALE: 1/8"=1'	DRAWN BY: LY / DESIGNER:
PROJECT NO: N/A	FILE: \\...
FACILITY: 64SIDNEY	DATE: 08/14/1998
SIZE: D	DRAWING NO.: 64SID-N/A-PFI-H-007-R1.1

EXHIBIT G

Removable Items

Within the First Floor Spaces:

Property of Landlord: All built-in work surfaces, material lift, piping and instrumentation for medical gas manifold, work bench, and any built-in storage racking.

Property of Tenant: All movable shelving and racks, all carts, all medical gas tanks, all movable office furniture, telecom and computer racks and hubs, all freezers, refrigerators, environmental chambers and Cobalt 60 Irradiator.

Within the Second Floor Spaces:

Property of Landlord: All built-in work surfaces, elevators, dumbwaiters, lifts, piping and instrumentation for utilities, Autoclave, Depyrogenation oven, HVAC equipment, biological safety cabinets, cold rooms, biological neutralization tank.

Property of Tenant: All movable shelving and racks, all carts, all medical, gas tanks, all movable office furniture, all modular cubicles, all freezers, refrigerators, cryostorage equipment, incubators, centrifuges, microscopes, balances, glasswashers, computers, telephone and computer racks and hubs.

Within the Third Floor Spaces:

Property .of Landlord: All built-in surfaces, lab benches, built-in wooden cubicles, elevators, dumbwaiters, lifts piping and instrumentation for utilities, autoclaves, HVAC equipment, biological safety cabinets, fume hoods, cold rooms, utility generation equipment including RO/DI water, plant steam boiler, hot water boilers, vacuum pump skid, compressed air skid, and hot water circulation pumps.

Property of Tenant: All movable shelving and racks, all carts, all medical gas tanks, all movable office furniture, all modular cubicles, all freezers, refrigerators, cryostorage equipment, incubators, centrifuges, microscopes, balances, glasswashers, analytical equipment, computers, telephone and computer racks and hubs.

FIRST AMENDMENT TO LEASE

THIS FIRST AMENDMENT TO LEASE (hereinafter referred to as the "**Amendment**") is dated as of this 21st day of May, 2010 by and between FC 64 SIDNEY, INC., a Massachusetts corporation ("**Landlord**") and GENZYME CORPORATION, a Massachusetts corporation ("**Tenant**"). Capitalized terms used herein and not otherwise defined shall have the meaning ascribed to such term in the Lease.

WITNESSETH

WHEREAS, Landlord and Tenant entered into that certain Lease dated as of November 30, 2005 (the "**Lease**"), with respect to certain premises located at 64 Sidney Street, Cambridge, Massachusetts; and

WHEREAS, Landlord and Tenant desire to amend the Lease to, among other changes, extend the term of the Lease, all as set forth in this Amendment.

NOW, THEREFORE, in consideration of the premises and mutual covenants hereinafter contained and other valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Landlord and Tenant hereby agree to amend the Lease effective as of the date hereof as follows:

1. The term "**Initial Term**" on Exhibit A to the Lease shall be deleted in its entirety and replaced as follows:

"Initial Term: Eight (8) years, commencing on February 8, 2006 and terminating on February 8, 2014."

2. The term "**Annual Fixed Rent for the Term**" on Exhibit A to the Lease shall be deleted in its entirety and replaced as follows:

''Annual Fixed Rent for the Term:	February 9, 2006 - February 8, 2011:	$35.00 per rentable square foot, NNN
	February 9, 2011 - February 8, 2012:	$50.00 per rentable square foot, NNN
	February 9, 2012 - February 8, 2013:	$51.00 per rentable square foot, NNN
	February 9, 2013 - February 8, 2014:	$52.00 per rentable square foot, NNN"

3. Section 2.6 of the Lease shall be amended by deleting the first paragraph thereof and replacing it with the following paragraph:

"Provided that there has been no Event of Default which is uncured and continuing on the part of the Tenant and the Tenant is, as of the date of such exercise and as of the commencement date of the Extension Term (as such term is defined below), actually occupying sixty percent (60%) or more of the Premises for its own business purposes, the Tenant shall have the right to extend the Term hereof for one (1) period of three (3) years (such period referred to herein as the "**Extension Term**")."

4. Section 2.6(a) of the Lease shall be amended by deleting the words and numbers "six (6)" in the last sentence of said section and replacing it with "three (3)".

5. Section 4.1 of the Lease shall be amended by adding the following sentences to the end of this Section:

"Notwithstanding the foregoing, Tenant shall have the right to provide, install, replace, maintain and remove its own security system within the Premises during the Initial Term of the Lease and any and all of the extensions. This shall include the right to provide its own security officer coverage and install, in a workmanlike fashion, system components of Tenant's choosing that include but are not limited to security cameras, televisions, monitors and other electronic monitoring devises, electronic door strikes, door contacts, exit sensors, car readers (which may be mounted immediately outside the Premises in common areas), motion detectors, glass break detectors and other similar security systems and/or methods which will protect the Premises to meet Tenant's corporate security standards."

6. Section 11.9 of the Lease shall be amended by adding the following sentences to the end of the first paragraph thereof:

"Notwithstanding anything to the contrary contained in this Lease, Tenant shall not be obligated to restore the Premises or remove any alterations or additions to the Premises at the end of the Term, except for any new items installed after the expiration of the Initial Term which Landlord identified in written notice delivered prior to Landlord approving Tenant's plans for any alterations or improvements as items which Tenant must remove prior to the expiration of the Lease. Tenant shall not be required to remove its computer and telecommunications wiring, cable and other equipment; *provided, however*, that to the extent that Tenant replaces any such wiring and cable during the Initial Term or any other extension thereof then it shall, as part of that installation pull and remove from the Premises any wiring and cable that it no longer uses from the specific portion of the Premises in which Tenant is replacing such wiring or cabling. Tenant will yield-up the Premises to Landlord in broom swept condition, reasonable wear and tear and damage resulting from casualty excepted."

7. As consideration for this Amendment, Tenant hereby forgives any obligation Landlord has with respect to funding any remaining portion of the Leasehold Improvements Allowance pursuant to Exhibit C of the Lease.

8. Each of Tenant and Landlord warrant and represent to the other that it has had no dealings with any broker or agent in connection with this Lease other than FHO Partners and Colliers Meredith & Grew (the "**Brokers**"). Tenant and Landlord agree to defend with counsel reasonably approved by the other, hold harmless and indemnify the other from and against any and all cost, expense or liability for any compensation, commissions and charges which may be asserted against the other as a result of the other's breach of this warranty. Landlord shall pay commissions due and owing to FHO Partners at the rate of $1.00 per square foot of the Premises per year during the Extension Term, which shall be paid as follows: fifty percent (50%) upon the execution of this Amendment and fifty percent (50%) on or prior to February 8, 2011, as discussed in more particular detail in a separate agreement with Broker.

9. Landlord and Tenant agree to execute a Notice of Lease within thirty (30) days of the date of this Amendment. Landlord hereby authorizes Tenant to record the Notice of Lease upon execution by both parties.

10. This Amendment may be executed in any number of counterparts, each of which shall be deemed an original and all of which together shall constitute one and the same instrument.

11. The Lease, as amended hereby, is in full force and effect, and is ratified and confirmed, and there are no other amendments or modifications thereto.

12. This Amendment will be governed by and construed in accordance with the laws of the Commonwealth of Massachusetts.

[Remainder of page intentionally left blank]

IN WITNESS WHEREOF, the parties hereto have executed this Amendment under seal, as of the day, month and year first above written.

FC 64 SIDNEY, INC.,
a Massachusetts corporation

By: /s/ Michael Farley
Name: Michael Farley
Title: Vice President

GENZYME CORPORATION,
a Massachusetts corporation

By: /s/ Michael Wyzga
Name: Michael Wyzga
Title: CFO/EVP

SECOND AMENDMENT TO LEASE

THIS SECOND AMENDMENT TO LEASE (hereinafter referred to as the "**Amendment**") is dated as of this 30th day of September, 2013 by and between UP 64 SIDNEY, LLC, a Delaware limited liability company ("**Landlord**") and GENZYME CORPORATION, a Massachusetts corporation ("**Tenant**"). Capitalized terms used herein and not otherwise defined shall have the meaning ascribed to such term in the Lease.

W I T N E S S E T H

WHEREAS, Landlord's predecessor in interest and Tenant entered into that certain Lease dated as of November 30, 2005, as amended by that certain First Amendment to Lease dated as of May 21, 2010 (collectively, the "**Lease**"), with respect to certain premises located at 64 Sidney Street, Cambridge, Massachusetts;

WHEREAS, Landlord and Tenant desire to amend the Lease to, among other changes, extend the term of the Lease, all as set forth in this Amendment.

NOW, THEREFORE, in consideration of the premises and mutual covenants hereinafter contained and other valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Landlord and Tenant hereby agree to amend the Lease effective as of the date hereof as follows:

1. The term "**Initial Term**" on Exhibit A to the Lease shall be deleted in its entirety and replaced as follows:

"**Initial Term**:	Approximately eleven (11) years, commencing on February 8, 2006 and terminating on February 28, 2017."

2. The term "**Annual Fixed Rent for the Term**" on Exhibit A to the Lease shall be amended by adding the following thereto:

"**Annual Fixed Rent for the Term**:	February 9, 2014 – February 8, 2015:	$53.00 per rentable square foot, NNN
	February 9, 2015 – February 8, 2016:	$54.00 per rentable square foot, NNN
	February 9, 2016 – February 28, 2017:	$55.00 per rentable square foot, NNN"

3. Section 2.6 of the Lease shall be amended by deleting the first paragraph thereof and replacing it with the following paragraph:

"Provided that there has been no Event of Default which is uncured and continuing on the part of the Tenant and the Tenant (by itself or in combination

with any transferee of a Permitted Transfers and/or Collaborative Users, as defined below) is, as of the date of such exercise and as of the commencement date of the Extension Term (as such term is defined below), actually occupying sixty percent (60%) or more of the Premises for its own business purposes, the Tenant shall have the right to extend the Term hereof for two (2) periods of three (3) years each (each such period referred to herein as the "**Extension Term**")."

4. Section 2.6(a) of the Lease shall be amended by deleting the words and numbers "three (3)" in the last sentence of said section and replacing them with the words and numbers "six (6)".

5. Section 2.6(c) of the Lease shall be amended by deleting the following proviso starting on the eighth (8^{th}) line of said section:

"provided, however, in no event shall the Extension Fair Rental Value be an amount that is less than the Annual Fixed Rent due during the period immediately preceding such extension."

6. The following shall be added as Section 2.7 of the Lease:

   "Section 2.7 - Termination Right.

   Tenant shall have the right to terminate the Lease effective February 8, 2015, by giving Landlord four (4) months prior written notice (the "**First Termination Notice**") and by paying a termination fee at the time of delivery of the First Termination Notice equal to eight-two and one half percent (82.5%) of the Annual Fixed Rent and Additional Rent that then remains outstanding through the end of the Initial Term. The Additional Rent component of the termination fee shall be calculated using utility rates for vacant space, shall exclude any cleaning charges for the Premises, and shall otherwise be based on the actual charges of Additional Rent being billed to Tenant by Landlord at the time of the First Termination Notice."

   Additionally, Tenant shall have the right to terminate the Lease effective February 8, 2016, by giving Landlord six (6) months prior written notice (the "**Second Termination Notice**") and by paying a termination fee at the time of delivery of the Second Termination Notice equal to eight-two and one half percent (82.5%) of the Annual Fixed Rent and Additional Rent that then remains outstanding through the end of the Initial Term. The Additional Rent component of the termination fee shall be calculated using utility rates for vacant space, shall exclude any cleaning charges for the Premises, and shall otherwise be based on the actual charges of Additional Rent being billed to Tenant by Landlord at the time of the Second Termination Notice."

7. Section 4.1 of the Lease shall be amended by adding the following sentence at the end thereof:

"Notwithstanding anything in the Lease to the contrary, Tenant shall remove any security systems installed by Tenant in the Premises at the end of the Term and repair any damage caused by such removal."

8. Tenant is extending the Initial Term of this Lease with the understanding that Tenant is accepting the Premises in their current as-is condition. In the event Tenant makes improvements to the Premises, Tenant shall hire its own contractors, subcontractors, engineers, and architects, subject to Landlord's reasonable approval, at its expense, to perform Tenant's alterations work. All work to be performed in the Premises shall be subject to Landlord approval which shall not be unreasonably withheld, conditioned or delayed, and performed in accordance with established tenant construction rules and regulations and in accordance with the requirements in the Lease. There shall be no construction oversight fee paid to Landlord. However, Landlord shall be reimbursed for any reasonable and actual third-party, out-of-pocket expenses incurred by Landlord in the review and approval of Tenant's plans, specifications, improvements and construction, but in no event shall the reimbursement be greater than $5,000 in the aggregate. Landlord shall cooperate with Tenant and make commercially reasonable efforts to assist Tenant with obtaining the necessary governmental permits for the construction of Tenant's alterations.

9. Section 6.8 of the Lease shall be amended by deleting it in its entirety and replacing it with the following:

"Section 6.8 - Assignment and Subleases.

The Tenant shall not assign, mortgage, pledge, hypothecate or otherwise transfer this Lease, or sublet (which term, without limitation, shall include granting of concessions, licenses and the like) the whole or any part of the Premises without, in each instance, having first received the consent of the Landlord which consent shall not be unreasonably withheld or delayed. Except as specifically permitted herein, any assignment or sublease made without such consent shall be void. Notwithstanding anything to the contrary contained in this Section, Tenant shall have the right to assign or otherwise transfer this Lease or the Premises, or part of the Premises, without obtaining the prior consent of Landlord, (a) to the purchaser of all or substantially all of Tenant's assets, or to any entity into which the Tenant may be merged or consolidated (along with all or substantially all of its assets), (b) to a successor to Tenant's business or the business unit of Tenant if such succession takes place by a merger, consolidation, reorganization, stock sale, asset purchase, act of legislature or otherwise, and (c) any Affiliate (as defined below) so long as such Affiliate remains in such relationship to Tenant (the transferee in each subsections (a) through (c) hereinafter referred to as the "**Acquiring Company**"); provided that (i) the Acquiring Company continues to operate the business conducted in the Premises consistent with the Permitted Uses described in Exhibit A hereto, (ii) the Acquiring Company shall assume in writing, in form acceptable to Landlord, all of Tenant's obligations under this Lease, (iii) Tenant shall provide to Landlord such additional information regarding the Acquiring

Company as Landlord shall reasonably request; and (iv) Tenant shall pay Landlord's reasonable expenses actually incurred in connection therewith. An "**Affiliate**" shall mean any entity which is directly or indirectly through one or more intermediaries controls, is under common control with or is controlled by Tenant. For purposes of the preceding sentence, the term "control" (including the terms "controlled by" and "under common control with") means the possession, directly or indirectly, of the power to direct or cause the direction of the management and policies of such Person, whether through ownership of voting securities, by contract or otherwise. Unless Landlord shall have objected to an assignment or transfer by Tenant within ten (10) business days following Landlord's receipt of the information or items described in subsections (ii) and (iii) above, Landlord shall be deemed to have waived its right to object thereto. The transfers described in this paragraph are referred to hereinafter as "**Permitted Transfers**."

Whether or not the Landlord consents, or is required to consent, to any assignment or subletting, and except for Permitted Transfers, the Tenant named herein shall remain fully and primarily liable for the obligations of the tenant hereunder, including, without limitation, the obligation to pay Annual Fixed Rent and Additional Rent provided under this Lease. The Tenant shall give the Landlord notice of any proposed sublease or assignment, whether or not the Landlord's consent is required hereunder, specifying the provisions of the proposed subletting or assignment, including (i) the name and address of the proposed subtenant or assignee, (ii) a copy of the proposed subtenant's or assignee's most recent annual financial statement, and (iii) all of the terms and provisions upon which the proposed subletting or assignment is to be made and such other information concerning the proposed subletting or assignment is to be made and such other information concerning the proposed subtenant or assignee as the Tenant has obtained in connection with the proposed subletting or assignment. Only in the event that Landlord, in its sole and absolute discretion, has agreed in writing to release Tenant from all liability under this Lease upon the assignment of this Lease or sublease of all or any portion of the Premises, may Landlord require evidence to the reasonable satisfaction of Landlord that the net assets of the proposed assignee or subtenant are not less than the assets of Tenant at the time of the signing of the Lease.

The Tenant shall reimburse the Landlord promptly after receiving a written invoice thereof for reasonable legal and other expenses actually incurred by the Landlord in connection with any request by the Tenant for consent to any assignment or subletting. If this Lease is assigned, and Tenant is in default beyond any grace or cure period under the Lease, the Landlord may, upon prior written notice to Tenant, at any time and from time to time, collect rent and other charges from the assignee, sublessee or occupant and apply the net amount collected to the rent and other charges herein reserved, but no such assignment, subletting, occupancy or collection shall be deemed a waiver of the prohibitions

contained in this Section 6.8 or the acceptance of the assignee, sublessee or occupant as a tenant, or a release of the Tenant from the further performance by the Tenant of covenants on the part of the Tenant herein contained.

The Tenant shall pay to the Landlord fifty percent (50%) of any amounts the Tenant actually receives from any subtenant or assignee as rent, additional rent or other forms of compensation or reimbursement for the sublease, assignment or occupancy of the Premises, after deducting therefrom (i) the then due and payable proportionate monthly share of Annual Fixed Rent, Additional Rent and all other monies due to Landlord pursuant to this Lease (allocable in the case of a sublease to that portion of the Premises being subleased), and (ii) all reasonable and customary sublease expenses (including but not limited to bona fide brokerage fees, fit up expenses, free rent periods, marketing costs and attorney's fees) incurred by Tenant. The preceding sentence shall not apply to any Permitted Transfers. The consent by the Landlord to an assignment or subletting shall not be construed to relieve the Tenant from obtaining the express consent in writing of the Landlord to any further assignment or subletting.

Notwithstanding anything to the contrary contained herein, Tenant shall be permitted to allow the occupancy of the Premises or portions thereof by companies, firms or other entities who are members of a group with whom Tenant has a contractual or other relationship providing for cooperative or collaborative research or development work, who are or typically would be located by Tenant in one of its facilities (each, a "**Collaborative User**"), without the prior written consent of Landlord, provided, however, that Tenant shall provide Landlord with written notice of such situations if such occupancy involves more than ten (10) people for a period of greater than six (6) months. Tenant shall be fully responsible for ensuring that any such parties comply with the terms of the Lease and Tenant shall at all times remain primarily liable under the Lease."

10. Tenant's Address for Notices set forth on Exhibit A to the Lease shall be deleted in its entirety and replaced with the following:

"Genzyme, a Sanofi company
500 Kendall Street
Cambridge, MA 02142
ATTN: Tracey Quarles

With a copy to: Edwards Wildman Palmer LLP
111 Huntington Avenue
Boston MA 02199
ATTN: LeeAnn Baker

With a copy to: Sanofi
55 Corporate Drive

Bridgewater, NJ 08807
ATTN: General Counsel”

11. Exhibit G to the Lease shall be amended by deleting the term “biological safety cabinets” from inclusion in the Property of Landlord on the Second Floor Spaces and Third Floor Spaces, and including such term in the “Property of Tenant” on such floors. Notwithstanding the terms of Section 11.9 and per the terms of Section 4.2 of the Lease, Tenant shall remove the biological safety cabinets upon termination or expiration of the Lease.

12. The defined term “**Permitted Uses**” set forth in Exhibit A to the Lease shall be deleted in its entirety and replaced with the following:

“**Permitted Uses**: Research and development and general office use, together with ancillary manufacturing associated therewith.”

13. To each of Tenant’s and Landlord’s actual knowledge, without inquiry, neither Landlord nor Tenant is in default under the Lease and there is no event or condition which, with the giving of notice or the passage of time, or both, would constitute a default under the Lease.

14. Landlord and Tenant represent and warrant that they have had no dealings with any broker or agent in connection with this Amendment other than Colliers International New England LLC and Zell Partnership, Inc. (collectively, the “**Broker**”) and each party shall indemnify and hold harmless the other party from claims for any brokerage commission other than to the Broker. Broker shall be paid a brokerage fee by Landlord pursuant to the terms of a separate agreement.

15. This Amendment may be executed in any number of counterparts, each of which shall be deemed an original and all of which together shall constitute one and the same instrument.

16. The Lease, as amended hereby, is in full force and effect, and is ratified and confirmed, and there are no other amendments or modifications thereto.

17. This Amendment will be governed by and construed in accordance with the laws of the Commonwealth of Massachusetts.

IN WITNESS WHEREOF, the parties hereto have executed this Amendment under seal, as of the day, month and year first above written.

GENZYME CORPORATION,
a Massachusetts corporation

By: /s/ Marc Esteva
Name: Marc Esteva
Title: CFO Genzyme

UP 64 SIDNEY STREET, LLC
a Delaware limited liability company

By: FC HCN University Park, LLC,
a Delaware limited liability company
Its Sole Member

By: Forest City University Park, LLC,
a Delaware limited liability company
Its Managing Member

By: /s/ Michael Farley
Name: Michael Farley
Title: Vice President

THIRD AMENDMENT TO LEASE

THIS THIRD AMENDMENT TO LEASE (hereinafter referred to as the "Amendment") is dated as of this 8th day of March, 2016 by and between UP 64 SIDNEY STREET, LLC, a Delaware limited liability company ("Landlord") and VERICEL CORPORATION, a Michigan corporation ("Tenant"). Capitalized terms used herein and not otherwise defined shall have the meaning ascribed to such term in the Lease.

W I T NE SS E T H

WHEREAS, Landlord's predecessor in interest and Tenant's predecessor in interest entered into that certain Lease dated as of November 30, 2005, as amended by that certain First Amendment to Lease dated as of May 21, 2010, and that certain Second Amendment to Lease dated as of September 30, 2013 (collectively, the "Lease"), with respect to certain premises located at 64 Sidney Street, Cambridge, Massachusetts;

WHEREAS, Tenant is also the tenant under a lease with Landlord dated as of January 23, 2008, as amended (collectively, the "2008 Lease"), with respect to certain other premises also located at 64 Sidney Street, Cambridge, Massachusetts; and

WHEREAS, Landlord and Tenant desire to amend the Lease to, among other changes, extend the term of the Lease, amend the definition of Premises, and other revisions all as set forth in this Amendment.

NOW, THEREFORE, in consideration of the premises and mutual covenants hereinafter contained and other valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Landlord and Tenant hereby agree to amend the Lease effective as of the date hereof as follows:

1. The term "Initial Term" on Exhibit A to the Lease shall be deleted in its entirety and replaced as follows:

   "Initial Term: Approximately sixteen (16) years, commencing on February 8, 2006 and terminating on February 28, 2022."

2. The term "Premises" on Exhibit A to the Lease shall be amended by adding the following thereto:

   "Third Amendment Premises: 306 rsf comprising a portion of the 2nd floor of the Building located adjacent to Suite 200, and located directly above the main lobby of the Building, as shown on Exhibit B-2 attached hereto."

3. The term "Annual Fixed Rent for the Term" on Exhibit A to the Lease shall be amended by adding the following thereto:

"Annual Fixed Rent for the Term: March 1, 2017 – February 28, 2018: $71.00 per rentable square foot, NNN

March 1, 2018– February 28, 2019: $73.13 per rentable square foot, NNN

March 1, 2019– February 29, 2020: $75.32 per rentable square foot, NNN"

March 1, 2020 – February 28, 2021: $77.58 per rentable square foot, NNN

March 1, 2021 – February 28, 2022: $79.91 per rentable square foot, NNN

4. Section 2.6 of the Lease shall be deleted in its entirety and replaced with the following:

"Section 2.6 – Extension Option. Provided that there has been no Event of Default which is uncured and continuing on the part of the Tenant and the Tenant is, as of the date of such exercise and as of the commencement date of the Extension Term (as such term is defined below), actually occupying sixty percent (60%) or more of the Premises for its own business purposes, the Tenant shall have the right to extend the Term hereof for one (1) period of five (5) years (the "Extension Term").

(a) Such right to extend the Term shall be exercised by the giving of notice by Tenant to Landlord at least nine (9) months prior to the expiration of the then current Term. Upon the giving of such notice, this Lease and the Term hereof shall be extended for an additional term of five (5) years without the necessity for the execution of any additional documents except a document evidencing the Annual Fixed Rent for the Extension Term to be determined as set forth below. Time shall be of the essence with respect to the Tenant's giving notice to extend the Term. In no event shall the Term hereof be extended for more than five (5) years after the expiration of the Initial Term.

(b) The Extension Term shall be upon all the terms, conditions and provisions of this Lease except the Annual Fixed Rent during such five (5) year Extension Term shall be the then Extension Fair Rental Value of the Premises for such Extension Term to be determined under this Section 2.6.

(c) For purposes of the Extension Term described in this Section 2.6, the Extension Fair Rental Value of the Premises shall mean the then current fair market annual rent for leases of other space similarly improved, in the commercial markets that surround the MIT campus (East Cambridge/Kendall Square/Cambridgeport), taking into account the condition to which such premises have been improved (excluding Removable Alterations) and the economic terms and conditions specified in this Lease that will be

applicable thereto, including the savings, if any, due to the absence or reduction of brokerage commissions. The Landlord and Tenant shall endeavor to agree upon the Extension Fair Rental Value of the Premises within thirty (30) days after the Tenant has exercised the option for the Extension Term. If the Extension Fair Rental Value of the Premises is not agreed upon by the Landlord and the Tenant within this time frame, each of the Landlord and the Tenant shall retain a real estate professional with at least ten (10) years continuous experience in the business of appraising or marketing (including brokering) similar commercial real estate in the Cambridge, Massachusetts area who shall, within thirty (30) days of his or her selection, prepare a written report summarizing his or her conclusion as to the Extension Fair Rental Value. The Landlord and the Tenant shall simultaneously exchange such reports; provided, however, if either party has not obtained such a report within forty-five (45) days after the last day of the thirty (30) day period referred to above in this Section 2.6, then the determination set forth in the other party's report shall be final and binding upon the parties. If both parties receive reports within such time and the lower determination is within ten percent (10%) of the higher determination, then the average of these determinations shall be deemed to be the Extension Fair Rental Value for the Premises. If these determinations differ by more than ten percent (10%), then the Landlord and the Tenant shall mutually select a person with the qualifications stated above (the "Final Professional") to resolve the dispute as to the Extension Fair Rental Value for the Premises. If the Landlord and the Tenant cannot agree upon the designation of the Final Professional within ten (10) days of the exchange of the first valuation reports, either party may apply to the American Arbitration Association, the Greater Boston Real Estate Board, or any successor thereto, for the designation of a Final Professional. Within ten (10) days of the selection of the Final Professional, the Landlord and the Tenant shall each submit to the Final Professional a copy of their respective real estate professional's determination of the Extension Fair Rental Value for the Premises. The Final Professional shall then, within thirty (30) days of his or her selection, prepare a written report summarizing his or her conclusion as to the Extension Fair Rental Value (the "Final Professional's Valuation"). The Final Professional shall give notice of the Final Professional's Valuation to the Landlord and the Tenant and such decision shall be final and binding upon the Landlord and the Tenant. Each party shall pay the fees and expenses of its real estate professional and counsel, if any, in connection with any proceeding under this paragraph, and one-half of the fees and expenses of the Final Professional. In the event that the commencement of the Extension Term occurs prior to a final determination of the Extension Fair Rental Value therefor (the "Extension Rent Determination Date"), then the Tenant shall pay the Annual Fixed Rent at the then applicable Fixed Rental Rate (such amount being referred to as the "Interim Rent"). If the Annual Fixed Rent as finally determined for the Extension Term is determined to be greater than the Interim Rent, then the Tenant shall pay to the Landlord the amount of the underpayment for the period from the end of the initial term of this Lease until the Extension Rent Determination Date within thirty (30) days of the Extension Rent Determination Date. If the Annual Fixed Rent as finally determined for the Extension Term is determined to be less than the Interim Rent, then the Landlord shall credit the amount of such overpayment against the monthly installments of Annual Fixed Rent coming due after the Extension Rent Determination Date.

(d) Tenant's right to exercise the Extension Option set forth in this Section 2.6 shall be contingent on Tenant simultaneously exercising the Extension Option under Section 2.6 of the 2008 Lease.

5. Tenant is extending the Initial Term of this Lease with the understanding that Tenant is accepting the Premises in their current as-is condition. In the event Tenant makes improvements to the Premises, Tenant shall hire its own contractors, subcontractors, engineers, and architects, subject to Landlord's reasonable approval, at its expense, to perform Tenant's alterations work. All work to be performed in the Premises shall be subject to Landlord approval which shall not be unreasonably withheld, and performed in accordance with established tenant construction rules and regulations and in accordance with the requirements in the Lease. There shall be no construction oversight fee paid to Landlord. However, Landlord shall be reimbursed for any reasonable and actual third-party, out-of-pocket expenses incurred by Landlord in the review and approval of Tenant's plans, specifications, improvements and construction, but in no event shall the reimbursement be greater than $5,000 in the aggregate. Landlord shall cooperate with Tenant and make commercially reasonable efforts to assist Tenant with obtaining the necessary governmental permits for the construction of Tenant's alterations.

6. The Work Letter attached to the Lease as Exhibit C shall be amended as follows:

(a) The first sentence of paragraph 1 shall be deleted and replaced with the following:

"Landlord shall provide to Tenant an allowance (the "Leasehold Improvements Allowance") equal to the product of (i) Thirty-Five Dollars ($35.00), times (ii) the rentable square footage of the Premises in the amount of 45,467 rsf (for a total of One Million Five Hundred Ninety-One Thousand Three Hundred Forty-Five and 00/100 Dollars ($1,591,345.00)), for application to the costs and expenses, more particularly set forth below, incurred by or on behalf of Tenant."

(b) The following shall be added to the end of paragraph 2:

"Notwithstanding the foregoing, the Leasehold Improvements Allowance may be used for Tenant's leasehold improvements, for construction, for architectural and engineering fees, for IT/Teldata and for project management services. The Leasehold Improvements Allowance shall be available for disbursement to the Tenant at any time following execution of the Third Amendment for any work that commences after execution of the Third Amendment."

7. Section 2.7 of the Lease shall be deleted in its entirety and replaced with the following:

"Section 2.7 Right of First Offer.

Prior to entering into any lease for space in any portion of Suite 100 of the Building (containing approximately 12,795 rsf) (the "Option Space"), Landlord shall notify Tenant in writing ("Landlord's ROFO Notice") that the Option Space is available for lease and the terms and conditions upon which it is available, which terms and conditions shall be at fair market value. Tenant's rights under this Section 2.7 shall be subordinate only to the right to negotiate with any existing tenant in possession of the Option Space.

Provided that at the time of the Landlord's ROFO Notice: (i) no Event of Default by Tenant exists under the Lease which is uncured and continuing on the part of the

Tenant, other than any which have been waived by the Landlord and the Tenant; and (ii) the Tenant is in occupancy of (a) all of the Premises, and (b) all of the premises under the 2008 Lease, for its own business purposes, Tenant may, by giving notice to Landlord within ten (10) days after Tenant's receipt of Landlord's ROFO Notice, elect to lease the Option Space upon the terms and conditions set forth in the Landlord's ROFO Notice. Without limitation, if said option is duly exercised, Landlord and Tenant shall enter into an amendment to the Lease confirming the inclusion of the Option Space and the adjustment to Annual Fixed Rent and all other charges payable under the Lease. The Option Space shall be offered to Tenant in "as is" condition (or as otherwise set forth in Landlord's ROFO Notice). If Tenant does not exercise its option under this Section 2.7, Tenant shall have no further option to lease the Option Space and all obligations of Landlord with respect to the Option Space under this Section shall terminate and be of no further force or effect."

8. The term "Parking Privileges" on Exhibit A to the Lease shall be amended by deleting the words and number "sixty-eight (68)" and replacing it with "seventy-eight (78)". Additionally, the following sentence shall be added at the end of the term "Parking Privileges": "Additionally, Tenant shall have the right to an additional five (5) parking passes by providing written notice to Landlord at any time prior to September 1, 2016."
9. Tenant's Address for Notices set forth on Exhibit A to the Lease shall be deleted in its entirety and replaced with the following:

"Vericel Corporation
64 Sidney Street
Cambridge, MA 02139
ATTN: Chief Operating Officer
Cc: Vice President, Legal Affairs"

10. Exhibit G to the Lease under (a) "Within the Second Floor Spaces:"
shall be amended by replacing the term "Autoclave" in the list of "Property of Landlord" with the term "built-in autoclave" and by adding the term "movable autoclaves" in the "Property of Tenant", and (b) "Within the Third Floor Spaces:" shall be amended by replacing the term "autoclaves" in the list of "Property of Landlord" with the term "built-in autoclaves" and by adding the term "movable autoclaves" in the "Property of Tenant".

11. Exhibit B-2 to the Lease shall be deleted in its entirety and replaced with the new copy of Exhibit B-2 attached hereto.

12. Landlord and Tenant represent and warrant that they have had no dealings with any broker or agent in connection with this Amendment other than Colliers International New England LLC and Cushman & Wakefield (collectively, the "Broker") and each party shall indemnify and hold harmless the other party from claims for any brokerage commission. Broker shall be paid a brokerage fee by Landlord pursuant to the terms of a separate agreement.
13. This Amendment may be executed in any number of counterparts, each of which shall be deemed an original and all of which together shall constitute one and the same

instrument.

14. The Lease, as amended hereby, is in full force and effect, and is ratified and confirmed, and there are no other amendments or modifications thereto.

15. This Amendment will be governed by and construed in accordance with the laws of the Commonwealth of Massachusetts.

IN WITNESS WHEREOF, the parties hereto have executed this Amendment under seal, as of the day, month and year first above written.

VERICEL CORPORATION,
a Michigan corporation

By: /s/ Dominick Colangelo
Name: Dominick Colangelo
Title: Chief Executive Officer

UP 64 SIDNEY STREET, LLC,
a Delaware limited liability company

By: FC HCN University Park, LLC,
a Delaware limited liability company
Its Sole Member

By: Forest City University Park, LLC,
a Delaware limited liability company
Its Managing Member

By: /s/ Michael Farley
Name: Michael Farley
Title: Vice President

EXHIBIT B-2

DEPICTION OF THE PREMSIES

Exhibit B-2-1

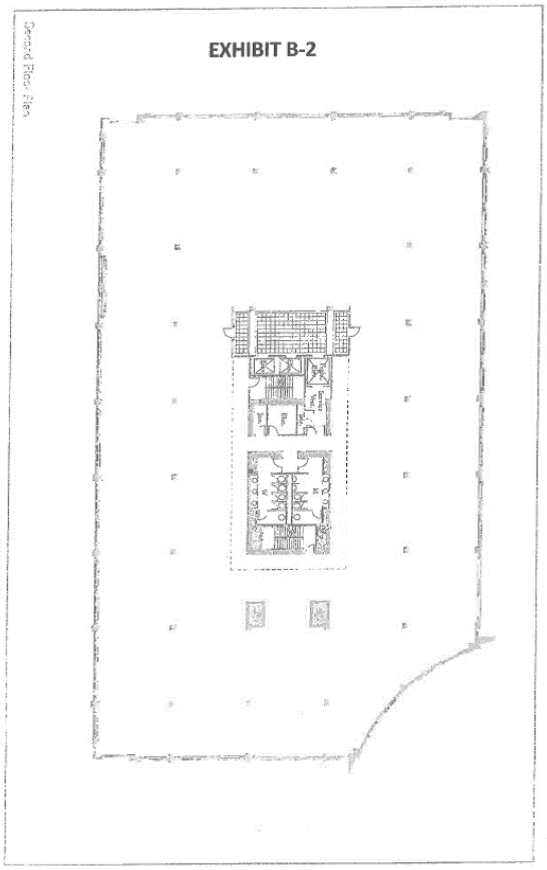


Exhibit B-2-2

64 Sidney Street

Cambridge, Massachusetts

LANDLORD

FC 64 SIDNEY, INC.

TENANT

GENZYME CORPORATION

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LEASE

ARTICLE I
RECITALS AND DEFINITIONS

Section 1.1 Recitals.

This Lease (this "**Lease**") is entered into as of November 30, 2008, by and between FC 64 SIDNEY, INC., a Massachusetts corporation, (the "**Landlord**"), and GENZYME CORPORATION, a Massachusetts corporation (the "**Tenant**").

In consideration of the mutual covenants herein set forth, the Landlord and the Tenant do hereby agree to the terms and conditions set forth in this Lease.

Section 1.2 Definitions.

The following terms shall have the meanings indicated or referred to below:

"**Additional Rent**" means all charges payable by the Tenant pursuant to this Lease other than Annual Fixed Rent, including without implied limitation, the Tenant's parking charges as provided in Section 2.4 and Exhibit A; the Tenant's Tax Expense Allocable to the Premises as provided in Section 3.2; the Tenant's Operating Expenses Allocable to the Premises in accordance with Section 3.3; amounts payable for special services pursuant to Section 3.5; the Landlord's share of any sublease or assignment proceeds pursuant to Section 6.8.

"**Annual Fixed Rent**" - See Exhibit A and Section 3.1.

"**Building**" means the Richards Building containing office space located at 64 Sidney Street, Cambridge, Massachusetts.

"**Commencement Date**" - See Section 2.5.

"**Common Building Areas**" means those portions of the Building which are not part of the Premises and to which the Tenant has appurtenant rights pursuant to Section 2.2.

"**External Causes**" means, collectively, (i) Acts of God, war, civil commotion, fire, flood or other casualty, strikes or other extraordinary labor difficulties, shortages of labor or materials or equipment in the ordinary course of trade, government orders or regulations enacted or promulgated after the date of this Lease, or other cause not reasonably within the Landlord's or Tenant's control and not due to the fault or neglect of the Landlord or Tenant, and (ii) any act, failure to act or neglect of the Tenant or Landlord or the Tenant's or Landlord's servants, agents, employees, licensees or any person claiming by, through or under the Tenant or Landlord, as the case may be, which delays the Landlord or Tenant, as the case may be, in the performance of any act required to be performed by the Landlord or Tenant, as the case may be, under this Lease.

"**Initial Term**" - See Exhibit A.

"**Land**" means the parcel of land situated in Cambridge, Massachusetts, described in Exhibit B.

"**Landlord's Original Address**" - See Exhibit A.

"**Lease Year**" means each period of one year during the Term commencing on the Commencement Date or on any anniversary thereof.

"**Permitted Uses**" - See Exhibit A.

"**Premises**" - See Exhibit A and Section 2.1.

"**Property**" means the Land and the Building.

"**Tenant's Original Address**" - See Exhibit A.

"**Term**" means the Initial Term (as defined in Exhibit A).

"**University Park**" means the area in Cambridge, Massachusetts, bounded on the North side by Massachusetts Avenue, Green and Blanche Streets, on the East side by Landsdowne, Cross and Purrington Streets, on the South side by Pacific Street and on the West side by Brookline Street, as shown on Exhibit B-l.

Section 1.3 Exhibits.

The Exhibits to this Lease, which are listed herein below, are incorporated herein by this reference and are to be treated as a part of this Lease for all purposes. Undertakings contained in such Exhibits, including any Exhibits not attached but separately delivered to Tenant, are agreements on the part of Landlord and Tenant, as the case may be, to perform the obligations stipulated therein.

EXHIBIT A - Basic Lease Terms
EXHIBIT B - Legal Description
EXHIBIT B-l - Map of University Park
EXHIBIT B-2 - Depiction of Premises
EXHIBIT C - Work Letter
EXHIBIT D - Standard Services
EXHIBIT E - Rules and Regulations
EXHIBIT F - Roof Equipment
EXHIBIT G - Removable Items

ARTICLE II.

PREMISES AND TERM

Section 2.1 Premises.

The Landlord hereby leases to the Tenant, and the Tenant hereby leases from the Landlord, for the Term, the Premises. The Premises shall exclude the office entry and office

lobby of the Building, first floor elevator lobby, first floor mail room, atrium, bridges and walkways, the common stairways and stairwells, elevators and elevator wells, boiler room, sprinklers, sprinkler rooms, elevator rooms, mechanical rooms, loading and receiving areas, electric and telephone closets, janitor closets, loading docks and bays, rooftop mechanical penthouses to the extent they house Building equipment, and pipes, ducts, conduits, wires and appurtenant fixtures and equipment serving exclusively or in common other parts of the Building. If the Premises at any time includes less than the entire rentable floor area of any floor of the Building, the Premises shall also exclude the common corridors, vestibules, elevator lobby and toilets located on such floor. The Tenant acknowledges that, except as expressly set forth in this Lease, there have been no representations or warranties made by or on behalf of the Landlord with respect to the Premises, the Building or the Property or with respect to the suitability of any of them for the conduct of the Tenant's business. The taking of possession of the Premises by the Tenant shall conclusively establish that the Premises and the Building were at such time in satisfactory condition, order and repair, latent defects only, excepted. Landlord hereby represents that to the best of Landlord's knowledge, the Building is in compliance with the Americans with Disabilities Act of 1990 ("**ADA**").

Section 2.2 Appurtenant Rights.

The Tenant shall have, as appurtenant to the Premises, the nonexclusive right to use in common with others, subject to reasonable rules of general applicability to occupants of the Building from time to time made by the Landlord of which the Tenant is given notice: (i) the office entry, office vestibules and office lobby of the Building, first floor mail room, the common stairways, elevators, elevator wells, boiler room, elevator rooms, sprinkler rooms, mechanical rooms, electric and telephone closets, janitor closets, loading docks and bays, rooftop mechanical penthouses to the extent they house Building equipment, and the pipes, sprinklers, ducts, conduits, wires and appurtenant fixtures and equipment serving the Premises in common with others, (ii) common walkways and driveways necessary or reasonably convenient for access to the Building, (iii) access to loading area and freight elevator subject to Landlord's reasonable rules and regulations in effect from time to time and applicable to all occupants of the Building and of which the Tenant is given notice, (iv) if the Premises at any time include less than the entire rentable floor area of any floor, the common toilets, corridors, vestibules, and elevator lobby of such floor, and (v) such other common areas and facilities of the Building and the Land necessary for access to or beneficial use of the Premises. Additionally, Tenant shall have the right to locate equipment on the roof of the Building, as designated on Exhibit F ("**Roof Equipment**"), subject to Landlord's approval, which shall not be unreasonably withheld. Landlord hereby approves and consents to Tenant's use of the roof for the operation, maintenance and replacement of Tenant's existing equipment on the roof of the Building and the location of such existing equipment.

Section 2.3 Landlord's Reservations.

The Landlord reserves the right from time to time, at reasonable times and upon prior written notice to Tenant (except in emergency situations), without unreasonable interference with

the Tenant's use: (i) to install, use, maintain, repair, replace and relocate for service to the

Premises and/or other parts of the Building, pipes, ducts, conduits, wires and appurtenant fixtures and equipment, wherever located in the Premises or the Building, and (ii) to alter or relocate any other common facility, *provided* that substitutions are substantially equivalent or better. Landlord acknowledges that Tenant has or will have so-called "clean rooms" located within the Premises, and Landlord shall not enter Tenant's "clean rooms" without Tenant's prior consent and without accompaniment by a representative of Tenant, except in case of emergency.

Section 2.4 Parking.

The Landlord shall provide and the Tenant shall pay for parking privileges for use by the Tenant's employees, business invitees and visitors in accordance with Exhibit A. The Landlord shall operate, or cause to be operated, a parking garage known as the 80 Landsdowne Street Garage (the "**Garage**") to serve the Building and other buildings in University Park. The Tenant's parking privileges shall be initially located in the Garage and shall be on a nonexclusive basis (i.e., no reserved spaces); *provided*, *however*, Landlord agrees that the Garage shall be operated so as to maintain therein sufficient spaces to accommodate Tenant's parking privileges described in Exhibit A. However, Tenant's parking privileges may be relocated by Landlord, upon reasonable prior notice to Tenant from Landlord, to another parking garage within University Park. All monthly users will have unlimited access to the Garage twenty-four (24) hours per day, seven days per week.

The Tenant agrees that it and all persons claiming by, through and under it, shall at all times abide by the reasonable rules and regulations promulgated by the Landlord, of which Tenant is given written notice, with respect to the use of the parking facilities provided by the Landlord pursuant to this Lease. If there are any conflicts between the provisions of such rules and regulations and any provisions of this Lease, the provisions of this Lease shall govern.

Charges for Tenant's parking privileges hereunder shall be at the current monthly rate applicable for such spaces and shall constitute Additional Rent and shall be payable monthly to Landlord, during the Term, from and after the Commencement Date at the time and in the fashion in which Annual Fixed Rent under this Lease is payable.

At any time during the Term Landlord shall have the right to assign Landlord's obligations to provide parking, as herein set forth, together with Landlord's right to receive Additional Rent for such parking spaces as herein provided, to a separate entity created for the purpose of providing the parking privileges set forth herein. In such event, Landlord and Tenant agree to execute and deliver appropriate documentation, including documentation with the new entity, reasonably necessary to provide for the new entity to assume Landlord's obligations to provide the parking privileges to Tenant as specified herein and for the Tenant to pay the Additional Rent attributable to the parking privileges directly to the new entity. Notwithstanding the foregoing, any failure of such assignee to provide to Tenant the parking privileges set forth herein shall be a Landlord default under this Lease.

Section 2.5 Commencement Date.

"**Commencement Date**" means March 1, 2008. Notwithstanding the foregoing, as of the full execution of this Lease, Tenant shall have access to the Premises in order to perform its leasehold improvements, which access shall not trigger the Commencement Date.

Section 2.6 Extension Options.

Provided that there has been no Event of Default which is uncured and continuing on the part of the Tenant and the Tenant is, as of the date of exercise and as of the commencement date of the Extension Term (as such term is defined below), actually occupying sixty percent (60%) or more of the Premises for its own business purposes, the Tenant shall have the right to extend the Term hereof for two (2) successive periods of three (3) years each (each such three (3) year period an "**Extension Term**").

(a) Such right to extend the Term shall be exercised by the giving of notice by Tenant to Landlord at least seven (7) months prior to the expiration of the then current Term. Upon the giving of such notice, this Lease and the Term hereof shall be extended for an additional term of three (3) years without the necessity for the execution of any additional documents except a document evidencing the Annual Fixed Rent for the Extension Term to be determined as set forth below. Time shall be of the essence with respect to the Tenant's giving notice to extend the Term. In no event shall the Term hereof be extended for more than six (6) years after the expiration of the Initial Term.

(b) Each Extension Term shall be upon all the terms, conditions and provisions of this Lease except the Annual Fixed Rent during each such three (3) year Extension Term shall be the then Extension Fair Rental Value of the Premises for such Extension Term to be determined under this Section 2.6.

(c) For purposes of each Extension Term described in this Section 2.6, the Extension Fair Rental Value of the Premises shall mean ninety-five percent (95%) of the then current fair market annual rent for leases of other space similarly improved, taking into account the condition to which such premises have been improved (excluding Removable Alterations) and the economic terms and conditions specified in this Lease that will be applicable thereto, including the savings, if any, due to the absence or reduction of brokerage commissions; *provided*, *however*, in no event shall the Extension Fair Rental Value be an amount that is less than the Annual Fixed Rent due during the period immediately preceding such extension. The Landlord and Tenant shall endeavor to agree upon the Extension Fair Rental Value of the Premises within thirty (30) days after the Tenant has exercised an option for an Extension Term. If the Extension Fair Rental Value of the Premises is not agreed upon by the Landlord and the Tenant within this time frame, each of the Landlord and the Tenant shall retain a real estate professional with at least ten (10) years continuous experience in the business of appraising or marketing (including brokering) similar commercial real estate in the Cambridge, Massachusetts area who shall, within thirty (30) days of his or her selection, prepare a written report summarizing his or her conclusion as to the Extension Fair Rental Value. The Landlord and the Tenant shall simultaneously exchange such reports; *provided*, *however*, if either party has not

obtained such a report within forty-five (45) days after the last day of the thirty (30) day period referred to above in this Section 2.6, then the determination set forth in the other party's report shall be final and binding upon the parties. If both parties receive reports within such time and the lower determination is within ten percent (10%) of the higher determination, then the average of these determinations shall be deemed to be the Extension Fair Rental Value for the Premises. If these determinations differ by more than ten percent (10%), then the Landlord and the Tenant shall mutually select a person with the qualifications stated above (the "**Final Professional**") to resolve the dispute as to the Extension Fair Rental Value for the Premises. If the Landlord and the Tenant cannot agree upon the designation of the Final Professional within ten (10) days of the exchange of the first valuation reports, either party may apply to the American Arbitration Association, the Greater Boston Real Estate Board, or any successor thereto, for the designation of a Final Professional. Within ten (10) days of the selection of the Final Professional, the Landlord and the Tenant shall each submit to the Final Professional a copy of their respective real estate professional's determination of the Extension Fair Rental Value for the Premises. The Final Professional shall then, within thirty (30) days of his or her selection, prepare a written report summarizing his or her conclusion as to the Extension Fair Rental Value (the "**Final Professional's Valuation**"). The Final Professional shall give notice of the Final Professional's Valuation to the Landlord and the Tenant and such decision shall be final and binding upon the Landlord and the Tenant, unless Landlord or Tenant provide written notice of disapproval to the other party within ten (10) days of its receipt of the Final Professional's Valuation. In the event that Landlord or Tenant disapproves of the Final Professional's Valuation, (i) the disapproving party shall be responsible for payment to all third party appraisers utilized in connection with the process set forth in this Section 2.6, and (ii) the Lease shall be terminated effective three (3) months following the end of the original term (Tenant shall pay rent at the Annual Fixed Rent during such three (3) month period). In the event that Landlord and Tenant do not terminate this Lease pursuant to the preceding sentence and the term of the Lease is extended, each party shall pay the fees and expenses of its real estate professional and counsel, if any, in connection with any proceeding under this paragraph, and one-half of the fees and expenses of the Final Professional. In the event that the commencement of the Extension Term occurs prior to a final determination of the Extension Fair Rental Value therefor (the "**Extension Rent Determination Date**"), then the Tenant shall pay the Annual Fixed Rent at the greater of (i) the rate specified by the Landlord in its proposed Extension Fair Rental Value or (ii) the then applicable Fixed Rental Rate (such greater amount being referred to as the "**Interim Rent**"). If the Annual Fixed Rent as finally determined for the Extension Term is determined to be greater than the Interim Rent, then the Tenant shall pay to the Landlord the amount of the underpayment for the period from the end of the initial term of this Lease until the Extension Rent Determination Date within thirty (30) days of the Extension Rent Determination Date. If the Annual Fixed Rent as finally determined for the Extension Term is determined to be less than the Interim Rent, then the Landlord shall credit the amount of such overpayment against the monthly installments of Annual Fixed Rent coming due after the Extension Rent Determination Date.

Section 2.7 Expansion Option.

Landlord hereby grants to Tenant during the Extension Term a right of first offer ("**RoFO**") to lease the area consisting of 4,335 rentable square feet located on the third floor of the Building, which space is currently leased to Alkermes (the "**RoFO Space**") on the terms set forth below. At or before such time as Landlord has decided to commence the marketing of the RoFO Space, Landlord shall deliver a written notice to Tenant (the "**RoFO Notice**") setting forth the basic business terms on which the RoFO Space is to be marketed. Tenant shall have fifteen (15) days after it has received the RoFO Notice within which to reply to Landlord in writing of its election to lease the RoFO Space upon the terms and conditions in the RoFO Notice. If Tenant accepts Landlord's offer, Landlord and Tenant shall use diligent efforts to negotiate and enter into a lease for the RoFO Space on the terms and conditions set for the in the RoFO Notice, this Lease and otherwise reasonably acceptable to Landlord and Tenant.

If Tenant refuses the RoFO Space or fails to respond to Landlord's RoFO Notice within such 15-day period, then Landlord may lease the RoFO Space to any other party on "terms and conditions not more favorable to a prospective tenant", without recourse by Tenant. As used herein, "terms and conditions not more favorable to a prospective tenant" shall mean total rent of ninety-two and one-half percent (92.5%) or more than the total rent stated in the RoFO Notice for the RoFO Space and under similar other terms and conditions as proposed in the ROFO Notice. If Landlord wishes to lease the RoFO Space on terms and conditions more favorable to a prospective tenant, Landlord shall first offer the RoFO Space to Tenant on such more favorable terms and conditions in accordance the procedures set forth in the first paragraph of this Section 2.7 ("**Additional RoFO Notice**"). Tenant shall hall five (5) days after it has received the Additional RoFO Notice within which to reply to Landlord in writing of its election to lease the RoFO Space upon the terms and conditions in the Additional RoFO Notice. If Tenant accepts Landlord's offer, Landlord and Tenant shall use diligent efforts to negotiate and enter into a lease for the RoFO Space on the terms and conditions set for the in the Additional RoFO Notice, this Lease and otherwise reasonably acceptable to Landlord and Tenant.

ARTICLE III.

RENT AND OTHER PAYMENTS

Section 3.1 Annual Fixed Rent.

From and after the Commencement Date, the Tenant shall pay, without notice or demand, monthly installments of one-twelfth (l/12th) of the Annual Fixed Rent in effect and applicable to the Premises, in advance, on the first day of each calendar month of the Term and of the corresponding fraction of said one-twelfth (l/12th) for any fraction of a calendar month at the Commencement Date or end of the Term. The Annual Fixed Rent applicable to the Premises during the Term shall be as set forth in Exhibit A.

Section 3.2 Real Estate Taxes.

From and after the Commencement Date, during the Term, the Tenant shall pay to the Landlord, as Additional Rent, the Tenant's Tax Expenses Allocable to the Premises (as such term is hereinafter defined) in accordance with this Section 3.2. The following terms shall have the meanings indicated or referred to below:

(a) "**Tax Year**" means the 12-month period beginning July 1 each year or if the appropriate governmental tax fiscal period shall begin on any date other than July 1, such other date.

(b) "**The Tenant's Tax Expense Allocable to the Premises**" means that portion of the Landlord's Tax Expenses for a Tax Year which bears the same proportion thereto as the rentable floor area of the Premises (from time to time) bears to the total rentable floor area of the Building; *provided*, *however*, in the event that retail space in the Building is valued by the assessing authorities differently than the office space in the Building due solely on the basis of its use as retail space, the Tenant's Tax Expense Allocable to the Premises with respect to any Tax Year will be adjusted as is appropriate so that the Tenant is responsible for the portion of the Real Estate Taxes which are properly allocable to the Premises, as reasonably determined by Landlord based on information with respect to the assessment process made available by the assessing authorities.

(c) "**The Landlord's Tax Expenses**" with respect to any Tax Year means the aggregate Real Estate Taxes on the Property with respect to that Tax Year, reduced by any abatement or other tax refunds or credits received with respect to that Tax Year, plus any fees paid to third party consultants used by Landlord in connection with the calculation, abatement or refunding of Real Estate Taxes.

(d) "**Real Estate Taxes**" means (i) all taxes and special assessments of every kind and nature assessed by any governmental authority on the Property; and (ii) reasonable expenses of any proceedings for abatement of such taxes or special assessments. Any special assessments to be included within the definition of "Real Estate Taxes" for any Tax Year shall be limited to the amount of the installment (plus any interest thereon) of such special assessment (which shall be payable over the longest period permitted by law) required to be paid during such Tax Year. There shall be excluded from Real Estate Taxes all income, estate, succession, inheritance, excess profit, franchise and transfer taxes; *provided*, *however*, that if at any time during the Term the present system of ad valorem taxation of real property shall be changed so that in lieu of the whole or any part of the ad valorem tax on real property, there shall be assessed on the Landlord a capital levy or other tax on the gross rents received with respect to the Property, or a federal, state, county, municipal or other local income, franchise, excise or similar tax, assessment, levy or charge (distinct from any now in effect) based, in whole or in part, upon any such gross rents, then any and all of such taxes, assessments, levies or charges, to the extent so based, shall be deemed to be included within the term "Real Estate Taxes."

Payments by the Tenant on account of the Tenant's Tax Expenses Allocable to the Premises shall be made monthly at the time and in the fashion herein provided for the payment of Annual Fixed Rent and shall be in the amount of one-twelfth (l/12th) of the Tenant's Tax Expenses Allocable to the Premises for the current Tax Year as reasonably estimated by the Landlord.

Not later than one hundred twenty (120) days after the end of each Tax Year, the Landlord shall render the Tenant a statement in reasonable detail showing for the preceding Tax Year or fraction thereof, as the case may be, Real Estate Taxes for such Tax Year, and any abatements or refunds of such Real Estate Taxes. Expenses incurred in obtaining any tax abatement or refund may be charged against such tax abatement or refund before the adjustments are made for the Tax Year. If at the time such statement is rendered it is determined with respect to any Tax Year, that the Tenant has paid (i) less than the Tenant's Tax Expenses Allocable to the Premises or (ii) more than the Tenant's Tax Expenses Allocable to the Premises, then, in the case of clause "(i)" the Tenant shall pay to the Landlord, as Additional Rent, within thirty (30) days of such statement the amount of such underpayment and, in the case of clause "(ii)" the Landlord shall credit the amount of such overpayment against the next monthly installments of the Tenant's Tax Expenses Allocable to the Premises next thereafter coming due (or refund such overpayment if the Term has expired or earlier terminated within thirty (30) days after such expiration or termination).

To the extent that Real Estate Taxes shall be payable to the taxing authority in installments with respect to periods other than a Tax Year, the statement to be furnished by the Landlord shall be rendered and payments made on account of such installments. Notwithstanding the foregoing provisions, no decrease in Landlord's Tax Expenses with respect to any Tax Year shall result in a reduction of the amount otherwise payable by Tenant if and to the extent any such decrease is attributed by the assessing authority solely to the vacant space in the Building based on information with respect to the assessment process made available by the assessing authorities to Landlord; *provided*, *however*, that in no event shall Landlord collect more than one hundred percent (100%) of the Landlord's Tax Expenses for the tenants of the Building.

Section 3.3 Operating Expenses.

From and after the Commencement Date, during the Term, the Tenant shall pay to the Landlord, as Additional Rent, the Tenant's Operating Expenses Allocable to the Premises, as hereinafter defined, in accordance with this Section 3.3. The following terms shall have the meanings indicated or referred to below:

(a) "**The Tenant's Operating Expenses Allocable to the Premises**" means that portion of the Operating Expenses for the Property which bears the same proportion thereto as the rentable floor area of the Premises bears to the total rentable floor area of the Building.

(b) "**Operating Expenses for the Property**" means Landlord's cost of operating, cleaning, maintaining and repairing the Property, the roads, driveways and walkways

for providing access to the Building, and shall include without limitation the cost of services on Exhibit D; premiums for insurance carried pursuant to Section 7.4; the amount deductible from any fire or other casualty insurance claim of the Landlord (which amount is currently $10,000.00, and which amount may be increased during the Term and any Extension Term provided such increase is reasonable and customary); reasonable compensation and all fringe benefits, worker's compensation insurance premiums and payroll taxes paid to, for or with respect to all persons (University Park/Building general manager and below) directly engaged in the managing, operating, maintaining or cleaning of the Property; interior landscaping and maintenance; steam, water, sewer, gas, oil, electricity, telephone and other utility charges (excluding such utility charges which are either separately metered or separately chargeable to Tenant or other Building tenants); cost of building and cleaning supplies used in cleaning the common areas of the Property; the costs of providing conditioned air for HVAC purposes (excluding such costs which are either separately metered or separately chargeable to tenants for additional or special services and those charges related to the cost of operating base Building equipment not used by Tenant)); the costs of routine environmental management programs operated by Landlord (including, but not limited to, periodic testing of air quality, temperature and humidity and the proper operation of the HVAC system); rental costs for equipment used in the operating, cleaning, maintaining or repairing of the common areas of the Property, or the applicable fair market rental charges in the case of equipment owned by Landlord; cost of cleaning; cost of maintenance, repairs and replacements (other than repairs and replacements reimbursed from contractors under guarantees or made by the Landlord pursuant to the Work Letter, reimbursed from any tenant of the Property or for which Landlord otherwise receives reimbursement); cost of snow removal; cost of landscape, streetscape, graphics, signage and banner maintenance; security services (security shall be building standard security; Tenant shall be responsible for the cost of any additional security services it may require due to its business operations); payments under service contracts with independent contractors; management fees at reasonable rates consistent with the type of occupancy and the service rendered, which such fees are currently $1.07 per rentable square foot; the cost of any capital improvement either required by law or regulation or which reduces the Operating Expenses for the Property or which improves the management and operation of the Property in a manner acceptable to Tenant, which cost shall be amortized in accordance with generally accepted accounting principles, together with interest on the unamortized balance at the base lending rate announced by a major commercial bank designated by the Landlord (the "**Prime Rate**"), or such higher rate (not to exceed the Prime Rate plus three percent [3%]) as may have been paid by the Landlord on funds actually borrowed for the purpose of constructing such capital improvements; charges reasonably allocated to the Building on a prorata basis for the cost of operating, cleaning, maintaining and repairing of University Park common areas, facilities, amenities and open spaces; and all other reasonable and necessary expenses paid in connection with the operation, cleaning, maintenance, repair and administration of the Property. If, for any reason, portions of the rentable area of the Building not included in the Premises were not occupied by tenants or any tenants in the Building were supplied with a different level of standard services than those supplied to the Tenant under this Lease, Landlord's Operating Expenses for the Property shall include the

amounts reasonably determined by Landlord which would have been incurred if all of the rentable area in the Building were occupied and were supplied with the same level of standard services as supplied to the Tenant under this Lease. Additionally, if certain services or facilities supplied under this Lease by Landlord do not from time to time, in Landlord's reasonable judgment, serve all of the users in the Building (i.e., office, retail, banking, restaurant, etc.), then the costs associated therewith shall be equitably allocated by Landlord, in its reasonable judgment, exclusively or proportionately to and among only those portions of the total rentable floor area of the Building that are benefiting from such services or facilities.

Operating Expenses for the Property shall not include the following: the Landlord's Tax Expense; cost of repairs or replacements (i) resulting from eminent domain takings, (ii) to the extent reimbursed by insurance, (iii) resulting from correcting defects in the work for which the Landlord is obligated pursuant to the Work Letter or pursuant to agreement with any other tenant in the Building, or those covered by builder's or contractor's warranties or guaranties, (iv) required, above and beyond ordinary periodic maintenance, to maintain in serviceable condition the major structural elements of the Building, including the roof, exterior walls and floor slabs; replacement or contingency reserves; cost of capital improvements except to the extent permitted in the preceding paragraph; ground lease rents or payment of debt obligations; accounting, legal and other professional fees for matters not relating to the normal administration and operation of the Property; promotional, advertising, public relations or brokerage fees and commissions paid in connection with services rendered for securing or renewing leases; services provided for the exclusive use or benefit of retail tenants in the Building; costs of renovating or otherwise improving space for tenants or other occupants of the Building; any cost of reconstruction or other work occasioned by fire, windstorm, or by any other casualty except as specifically permitted in the preceding paragraph; or by the exercise of the right of eminent domain; interest and principal payments on loans or any rental payments on any ground leases or legal fees or other costs of defending or prosecuting any lawsuits or disputes with any mortgagee or ground lessor; advertising expenses and leasing commissions and any other cost in connection with leasing of space in the Building; any cost or expenditure for which the Landlord is reimbursed, whether by insurance proceeds or otherwise; the cost of constructing and maintaining the 20 Sidney Street Garage or any temporary parking area provided to the Tenant pursuant to Section 2.4. The Landlord's Operating Expenses shall be reduced by the amount of any proceeds, payments, credits or reimbursements which the Landlord receives from sources other than tenants and which are applicable to such Operating Expenses for the Property.

Payments by the Tenant for its share of the Operating Expenses for the Property shall be made monthly at the time and in the fashion herein provided for the payment of Annual Fixed Rent. The amount so to be paid to the Landlord shall be an amount from time to time reasonably estimated by the Landlord to be sufficient to aggregate a sum equal to the Tenant's share of the Operating Expenses for the Property for each fiscal year of Landlord.

Not later than ninety (90) days after the end of each fiscal year of Landlord or fraction thereof during the Term or fraction thereof at the end of the Term, the Landlord shall render the

Tenant a statement ("**Landlord's Statement**") in reasonable detail and according to usual accounting practices certified by a representative of the Landlord, showing for the preceding fiscal year of Landlord or fraction thereof, as the case may be, the Operating Expenses for the Property and the Tenant's Operating Expenses Allocable to the Premises. Said statement to be rendered to the Tenant also shall show for the preceding fiscal year of Landlord or fraction thereof, as the case may be, the amounts of Operating Expenses already paid by the Tenant. If at the time such statement is rendered it is determined with respect to any fiscal year, that the Tenant has paid (i) less than the Tenant's Operating Expenses Allocable to the Premises or (ii) more than the Tenant's Operating Expenses Allocable to the Premises, then, in the case of clause "(i)" the Tenant shall pay to the Landlord, as Additional Rent, within thirty (30) days of such statement the amounts of such underpayment and, in the case of clause "(ii)" the Landlord shall credit the amount of such overpayment against the next monthly installment of the Tenant's Additional Rent (or refund such overpayment if the Term has expired or earlier terminated within thirty (30) days after such expiration or termination).

Section 3.4 Other Utility Charges.

During the Term, the Tenant shall pay directly to the provider of the service all separately metered charges for electrical service in the Premises (including, but not limited to, lights, electrical outlets, VAV boxes and any other special equipment exclusively servicing the Premises, whether located within or outside of the Premises), and shall pay to Landlord as Additional Rent its allocable share of the actual costs charged to Landlord by the providers of water, sewer and other services and utilities which are based on submetered usage.

Section 3.5 Above-standard Services.

If the Tenant requests and the Landlord elects to provide any services to the Tenant in addition to those described in Exhibit D, the Tenant shall pay to the Landlord, as Additional Rent, the amount billed by Landlord for such services at Landlord's rates as are from time to time in effect, which rates shall reflect the actual cost to Landlord of providing such services, including reasonable actual out-of-pocket costs to third parties and reasonable costs associated with the use of internal staff of either Landlord or affiliated entities of Landlord (but only to the extent such costs are not included in Operating Expenses by Landlord). If the Tenant has requested that such services be provided on a regular basis, the Tenant shall, if requested by the Landlord, pay for such services at the time and in the fashion in which Annual Fixed Rent under this Lease is payable. Otherwise, the Tenant shall pay for such additional services within thirty (30) days after receipt of an invoice from the Landlord. Landlord shall have the right from time to time to inspect Tenant's utility meters and to install timers or submeters thereon for purposes of monitoring above-standard service usage.

Section 3.6 No Offsets.

Annual Fixed Rent and Additional Rent shall be paid by the Tenant without offset, abatement or deduction except as specifically permitted herein.

Section 3.7 Tenant's Audit Rights.

Landlord agrees to make its books and records relating to the Operating Expenses for the Property and the Landlord's Tax Expenses available for examination during normal business hours at Landlord's principal office in Cleveland, Ohio upon reasonable notice by Tenant and its representatives; *provided* that any such examination or audit shall be by an employee of Tenant or an accounting firm or property management firm, the fees of which are not determined on a contingent basis, shall be at Tenant's sole cost and expense, and may be conducted only if a notice is sent by Tenant requesting the same not later than ninety (90) days following delivery of Landlord's Statement. If Tenant's audit discloses a discrepancy which involves an overcharge of Tenant's Operating Expenses Allocable to the Premises or the Tenant's Tax Expense Allocable to the Premises for the period covered by such Landlord's Statement, Landlord shall provide Tenant with a credit against the next installment(s) of Tenant's Additional Rent in the amount of the overpayment by Tenant. If such discrepancy as so agreed upon or determined involves an overcharge to Tenant of more than five percent (5%) in the aggregate for such year, Landlord shall be responsible for the reasonable hourly fees of the accounting firm or auditing firm conducting the audit.

ARTICLE IV.

ALTERATIONS

Section 4.1 Consent Required for Tenant's Alterations.

The Tenant may make interior alterations and additions of a decorative or cosmetic nature (as defined below), the cost of which does not exceed $50,000 in the aggregate in any twelve (12) month period, without the need of any approval from Landlord ("**Cosmetic Alterations**"). The Tenant shall not make alterations or additions to the Premises except in accordance with the University Park Tenant Design and Construction Manual and the plans and specifications therefor first approved by the Landlord, which approval shall not be unreasonably withheld, conditioned or delayed. Tenant shall be responsible for Landlord's reasonable out-of-pocket costs for any third party architectural, engineering or other consulting services reasonably required by Landlord in connection with Landlord's review and approval of Tenant's plans and specifications, *provided*, *however*, there shall be no charge in connection with Landlord's review of Tenant's plans for the initial alteration to the Premises. The Landlord shall not be deemed unreasonable for withholding approval of any alterations or additions which (i) would adversely affect any structural or exterior element of the Building, any area or element outside of the Premises, or any facility serving any area of the Building outside of the Premises or any publicly accessible major interior features of the Building, (ii) will require unusual expense to readapt the Premises to normal use unless the Tenant first gives assurance reasonably acceptable to the Landlord that such readaptation will be made prior to the expiration of the Term without expense to the Landlord, or (iii) which would not be compatible with existing mechanical or electrical, plumbing, HVAC or other systems in the Building, or use more than Tenant's prorata share of Building capacities, in each case, as reasonably determined by the Landlord.

Section 4.2 Ownership of Alterations.

All alterations and additions shall be part of the Building and owned by the Landlord except for the items listed on Exhibit G (the "**Removable Items**"), as such Exhibit G may be amended upon the written agreement of Landlord and Tenant. The Removable Items may be removed by Tenant at its option upon the expiration or earlier termination of this Lease, *provided*, *however*, Landlord may require such removal by Tenant provided Landlord advised Tenant i n writing of such requirement prior to the installation of the alteration or addition by Tenant. If Tenant fails to inform Landlord, in writing, at least ten (10) days prior to the installation of the alteration or addition, thereby preventing Landlord from making a determination as to whether it will want such addition or alteration removed from the Premises prior to its installation, then Landlord may require such removal without exception. All movable equipment and furnishings not attached to the Premises shall remain the property of the Tenant and shall be removed by the Tenant upon termination or expiration of this Lease. The Tenant shall repair any damage caused by the removal of any alterations, additions or personal property from the Premises, including the Removable Items. Additionally, Tenant shall be responsible for decommissioning all lab space in the Premises including the removal of all chemical, radioactive and/or biohazardous materials upon termination or expiration of this Lease.

Section 4.3 Construction Requirements for Alterations.

All construction work by the Tenant shall be done in a good and workmanlike manner employing only first-class materials and in compliance with Landlord's construction rules and regulations then in effect and with all applicable laws and all lawful ordinances, regulations and orders of governmental authority and insurers of the Building. The Landlord or Landlord's authorized agent may (but without any implied obligation to do so) inspect the work of the Tenant at reasonable times and shall give notice of observed defects. All of the Tenant's alterations and additions and installation of furnishings shall be coordinated with any work being performed by the Landlord and in such manner as to maintain harmonious labor relations and not to damage the Building or interfere with Building construction or operation and, except for installation of furnishings, shall be performed by contractors or workmen first approved by the Landlord, which approval the Landlord agrees not to unreasonably withhold or delay. The Tenant, before starting any work, shall receive and comply with Landlord's construction rules and regulations and shall cause Tenant's contractors to comply therewith, shall secure all licenses and permits necessary therefor, shall deliver to the Landlord a statement of the names of all its contractors and subcontractors and the estimated cost of all labor and material to be furnished by them, and shall deliver to Landlord security satisfactory to the Landlord protecting the Landlord against liens arising out of the furnishing of such labor and material; and cause each contractor to carry worker's compensation insurance in statutory amounts covering all the contractors' and subcontractors' employees and comprehensive general public liability insurance with such limits as the Landlord may require reasonably, but in no event less than $1,000,000 (individual)/$3,000,000 (aggregate) or in such other amounts as Landlord may reasonably require covering personal injury and death and property damage (all such insurance to be written in companies

approved reasonably by the Landlord and insuring the Landlord, Landlord's managing agent, ground lessor and first mortgagee, and the Tenant as well as the contractors and to contain a requirement for at least thirty (30) days' notice to the Landlord prior to cancellation, nonrenewal or material change), and to deliver to the Landlord certificates of all such insurance.

Section 4.4 Payment for Tenant Alterations.

The Tenant agrees to pay promptly when due the entire cost of any work done on the Premises by the Tenant, its agents, employees or independent contractors, and not to cause or permit any liens for labor or materials performed or furnished in connection therewith to attach to the Premises or the Property and promptly to discharge any such liens which may so attach. If any such lien shall be filed against the Premises or the Property as a result of any work done on the Premises by Tenant, its agents, employees or independent contractors, and the Tenant shall fail to cause such lien to be discharged within ten (10) days after the filing thereof, the Landlord may cause such lien to be discharged by payment, bond or otherwise without investigation as to the validity thereof or as to any offsets or defenses which the Tenant may have with respect to the amount claimed. The Tenant shall reimburse the Landlord, as Additional Rent, for any reasonable cost so incurred and shall indemnify and hold harmless the Landlord from and against any and all claims, costs, damages, liabilities and expenses (including reasonable attorneys' fees) which may be incurred or suffered by the Landlord by reason of any such lien or its discharge.

ARTICLE V.

RESPONSIBILITY FOR CONDITION OF BUILDING AND PREMISES

Section 5.1 Maintenance of Building and Common Areas by Landlord.

Except as otherwise provided in Article VIII, the Landlord shall make such repairs to all structural elements of the Building, including without limitation, the roof, exterior and other load-bearing walls and floor and floor slabs as may be necessary to keep and maintain the same in good order, condition and repair, and maintain and make, or cause to be maintained and made, such repairs to the Common Building Areas as may be necessary to keep them in good order, condition and repair, including without limitation, the glass in the exterior walls of the Building, and all mechanical systems and equipment serving the Building and not exclusively serving the Premises. The Landlord shall further perform the services set forth on Exhibit D attached hereto. The Landlord shall in no event be responsible to the Tenant for any condition in the Premises or the Building to the extent caused by an act or neglect of the Tenant, or any invitee or contractor of the Tenant. Tenant, its employees, agents and contractors, shall reasonably cooperate in the ongoing conduct of any environmental management programs conducted by Landlord, and shall participate and comply with the reasonable requirements of such programs to the extent Tenant is notified of same in writing and such requirements and recommendations pertain to the operations or maintenance responsibilities of the Tenant under this Lease, such requirements do not unreasonably interfere with Tenant's use of the Premises. Except as otherwise provided in this Lease, Landlord's costs in performing the obligations contained in this Section 5.1 shall be reimbursed by the Tenant to the extent provided in Section 3.3.

Landlord covenants that it shall use reasonable efforts to operate, clean, repair, maintain and manage the Property efficiently and economically.

Section 5.2 Maintenance of Premises by Tenant.

The Tenant shall keep neat and clean and maintain in good order, condition and repair the Premises and every part thereof, including mechanical equipment and other systems exclusively serving the Premises, reasonable wear and tear excepted, and further excepting those repairs for which the Landlord is responsible pursuant to Section 5.1 and damage by fire or other casualty and as a consequence of the exercise of the power of eminent domain, and shall surrender the Premises at the end of the Term in such condition, first removing all goods and effects of the Tenant and, to the extent specified by the Landlord by notice to the Tenant pursuant to Section 4.2, all alterations and additions made by the Tenant, and repairing any damage caused by such removal and restoring the Premises and leaving them clean and neat. The Tenant shall be responsible for the cost of repairs which may be made necessary by reason of damages to common areas in the Building by the Tenant, or any of the contractors or invitees of the Tenant. All of Tenant's data, networking, security and other systems and equipment, shall be maintained by Tenant. Tenant shall, upon request, provide evidence reasonably satisfactory to Landlord that it has available the necessary expertise to properly conduct and carry out this responsibility, either through persons employed by the Tenant or through contracts with independent service organizations, or a combination thereof.

Section 5.3 Delays in Landlord's Services.

The Landlord shall not be liable to the Tenant for any compensation or reduction of rent by reason or inconvenience or annoyance or for loss of business arising from the necessity of the Landlord or its agents entering the Premises in accordance with Section 2.3 hereof for any purposes authorized in this Lease, or for repairing the Premises as required or permitted herein or any portion of the Building. In case the Landlord is prevented or delayed from making any repairs, alterations or improvements, or furnishing any services or performing any other covenant or duty to be performed on the Landlord's part, by reason of any External Cause, the Landlord shall not be liable to the Tenant therefor, nor, except as expressly otherwise provided in this Lease, shall the Tenant be entitled to any abatement or reduction of rent by reason thereof, nor shall the same give rise to a claim in the Tenant's favor that such failure constitutes actual or constructive, total or partial, eviction from the Premises *provided, however*, Landlord shall use reasonable, good faith efforts not to interfere with Tenant's conduct of its business on the Premises.

The Landlord reserves the right to stop any service or utility system when necessary by reason of accident or emergency, until necessary repairs have been completed; *provided, however*, that in each instance of stoppage, the Landlord shall exercise diligent efforts to eliminate the cause thereof. Except in case of emergency repairs, the Landlord will give the Tenant reasonable advance notice of any contemplated stoppage and will use diligent efforts to avoid unnecessary inconvenience to the Tenant by reason thereof. In no event shall the Landlord

have any liability to the Tenant for the unavailability of heat, light or any utility or service to be provided by the Landlord to the extent that such unavailability is caused by External Causes, *provided, however*, that the Landlord is obligated to exercise diligent efforts to restore the services or utility systems' operation.

Notwithstanding anything contained herein to the contrary, in the event Landlord shall fail to provide the services it is required to provide to Tenant hereunder (a "**Service Failure**") other than as a result of Tenant's acts or omissions or External Causes, and as a result thereof, Tenant is reasonably unable to use or conduct its operations on part or all of the Premises for more than three (3) business days, Tenant shall be entitled to proportionate abatement of rent for the period Tenant is reasonably unable to use or conduct its operations in part or all of the Premises. If a Service Failure is a result of any cause other than Tenant's acts or omissions, and results in a loss of service to the Premises and to more than fifty percent (50%) of the Building, Tenant shall have the right to terminate this Lease if Landlord fails or is unable to restore such services within six (6) months from the date of interruption and Tenant is reasonably unable to use or conduct its operations in a substantial part or all of the Premises. If a Service Failure is a result of any cause other than Tenant's acts or omissions, and results in a loss of service to the Premises but to less than fifty percent (50%) of the Building, Tenant shall have the right to terminate this Lease if Landlord fails or is unable to restore such services within three (3) months from the date of interruption and Tenant is reasonably unable to use or conduct its operations in a substantial part or all of the Premises. Tenant shall have the right to terminate this Lease as aforesaid by written notice to Landlord at any time after the expiration of such six (6) month period, and such termination shall be effective as of the date of Tenant's notice.

ARTICLE VI.

TENANT COVENANTS

The Tenant covenants during the Term and for such further time as the Tenant occupies any part of the Premises:

Section 6.1 Permitted Uses.

The Tenant shall occupy the Premises only for the Permitted Uses, and shall not injure or deface the Premises or the Property, nor permit in the Premises any auction sale. The Tenant shall give written notice to the Landlord of any materials on OSHA's right to know list or which are subject to regulation by any other federal, state, municipal or other governmental authority and which the Tenant intends to have present at the Premises. The Tenant shall comply with all requirements of public authorities and of the Board of Fire Underwriters in connection with methods of storage, use and disposal thereof. The Tenant shall not permit in the Premises any nuisance, or the emission from the Premises of any objectionable noise, odor or vibration, nor use or devote the Premises or any part thereof for any purpose which is contrary to law or ordinance or liable to invalidate or increase premiums for any insurance on the Building or its contents or liable to render necessary any alteration or addition to the Building, nor commit or

permit any waste.in or with respect to the Premises, nor generate, store or dispose of any oil, toxic substances, hazardous wastes, or hazardous materials (each a, "**Hazardous Material**"), or permit the same in or on the Premises or any parking areas provided for under this Lease, unless first giving Landlord notice thereof. The Tenant may use radioactive materials and experiment with laboratory animals on the Premises so long as Tenant complies, at all times during the Term, with any and all applicable laws, regulations, ordinances, orders and the like. The Tenant shall not dump, flush or in any way introduce any Hazardous Materials into septic, sewage or other waste disposal systems serving the Premises or any parking areas provided for under this Lease, except in accordance with all applicable laws, regulations, ordinances, orders and the like or as permitted by government license or permit obtained by the Tenant. The Tenant will indemnify the Landlord and its successors and assigns against all claims, loss, cost, and expense, including reasonable attorneys' fees, incurred as a result of any contamination of the Building or any other portion of University Park with Hazardous Materials by the Tenant or Tenant's contractors, licensees, invitees, agents, servants or employees. With respect to any Permitted Use, Tenant shall provide to Landlord certified copies of all regulatory filings, licenses and permits Tenant has been required by law to obtain prior to handling any such Hazardous Materials, together with evidence reasonably satisfactory to Landlord that such licenses and/or permits are valid and in full force and effect. Tenant shall have received all such licenses and/or permits prior to commencement of its operations in the Premises. From time to time hereafter, upon thirty (30) days advance notice from Landlord, Tenant will provide Landlord with such updated certified copies of licenses and/or permits as the Landlord may reasonably request. Upon written request by the Landlord, Tenant shall immediately remove any material or substances which are not in compliance with this Section 6.1.

Section 6.2 Laws and Regulations.

The Tenant shall comply with all federal, state and local laws, regulations, ordinances, executive orders, federal guidelines, and similar requirements in effect from time to time, including, without limitation, any such requirements pertaining to employment opportunity, anti-discrimination, affirmative action and traffic mitigation.

Section 6.3 Rules and Regulations; Signs.

The Tenant shall not obstruct in any manner any portion of the Property not hereby leased; shall not permit the placing of any signs, curtains, blinds, shades, awnings, aerials or flagpoles, or the like, visible from outside the Premises; and shall comply with all reasonable rules and regulations of uniform application to all occupants of the Building now or hereafter made by the Landlord, of which the Tenant has been given notice, for the care and use of the Property and the parking facilities relating thereto. The Landlord shall not be liable to the Tenant for the failure of other occupants of the Building to conform to any such rules and regulations, but Landlord shall make reasonable efforts to enforce such rules and regulations on a uniform basis.

The Landlord shall provide a Building directory in the office lobby with Tenant's name

and floor locations within the Building listed therein and Building standard signage at the entry of the Premises.

Section 6.4 Safety Compliance.

The Tenant shall keep the Premises equipped with all safety appliances required by law or ordinance or any other regulations of any public authority because of any non-office use made by the Tenant (as opposed to major safety appliances required generally for the Property and the Building, for which the Landlord shall be responsible) and to procure all licenses and permits so required because of such use and, if requested by the Landlord, do any work so required because of such use, it being understood that the foregoing provisions shall not be construed to broaden in any way the Tenant's Permitted Uses. Tenant shall conduct such periodic tests, evaluations or certifications of safety appliances and equipment as are required or recommended in accordance with generally accepted standards to ensure that such safety appliances and equipment remain in good working order, and shall provide to Landlord copies of such reports, evaluations and certifications as requested by Landlord.

Section 6.5 Landlord's Entry.

The Tenant shall permit the Landlord and its agents, after reasonable notice (except in the case of emergencies) and with accompaniment by a representative of Tenant to enter the Premises at all reasonable hours for the purpose of inspecting or of making repairs as required or permitted to be made herein to the same, and for the purpose of showing the Premises to prospective purchasers and mortgagees at all reasonable times after reasonable prior notice to Tenant and to prospective tenants during the last twelve (12) months of the Term *provided* that in connection with such entry, Tenant may provide procedures reasonably designed so as not to jeopardize Tenant's trade secrets, proprietary technology or critical business operations. Except in case of an emergency, Landlord shall not enter Tenant's so-called "clean rooms" without Tenant's prior consent and without accompaniment by a representative of Tenant.

Section 6.6 Floor Load.

The Tenant shall not place a load upon any floor in the Premises exceeding the floor load per square foot of area which such floor was designed to carry and which is allowed by law. Further, Tenant shall not move any safe, vault or other heavy equipment in, about or out of the Premises except in such manner, in such areas and at such time as the Landlord shall in each instance reasonably authorize. The Tenant's machines and mechanical equipment shall be placed and maintained by the Tenant at the Tenant's expense in settings sufficient to absorb or prevent vibration or noise that may be transmitted to the Building structure or to any other space in the Building.

Section 6.7 Personal Property Tax.

The Tenant shall pay promptly when due all taxes which may be imposed upon personal property (including, without limitation, fixtures and equipment) in the Premises to whomever

assessed. Tenant shall have the right to contest the validity or amount of any such taxes by appropriate proceedings diligently conducted in good faith.

Section 6.8 Assignment and Subleases.

The Tenant shall not assign, mortgage, pledge, hypothecate or otherwise transfer this Lease, or sublet (which term, without limitation, shall include granting of concessions, licenses and the like) the whole or any part of the Premises without, in each instance, having first received the consent of the Landlord which consent shall not be unreasonably withheld or delayed. Except as specifically permitted herein, any assignment or sublease made without such consent shall be void. Notwithstanding anything to the contrary contained in this Section, Tenant shall have the right to assign or otherwise transfer this Lease or the Premises, or part of the Premises, without obtaining the prior consent of Landlord, (a) to its parent corporation or to a wholly owned subsidiary or to a corporation which is wholly owned by the same corporation which wholly owns Tenant, *provided* that (i) the transferee shall, prior to the effective date of the transfer, deliver to Landlord instruments evidencing such transfer and its agreement to assume and be bound by all the terms, conditions and covenants of this Lease to be performed by Tenant, all in form reasonably acceptable to Landlord, and (ii) at the time of such transfer there shall not be an uncured Event of Default under this Lease; or (b) to the purchaser of all or substantially all of its assets, or to any entity into which the Tenant may be merged or consolidated (along with all or substantially all of its assets) (the "**Acquiring Company**"), *provided* that (i) the net assets of the Acquiring Company at the time of the transfer or merger shall not be less than the net assets of Tenant at the time of the signing of this Lease, (ii) the Acquiring Company continues to operate the business conducted in the Premises consistent with the Permitted Uses described in Exhibit A hereto, (iii) the Acquiring Company shall assume in writing, in form acceptable to Landlord, all of Tenant's obligations under this Lease, (iv) Tenant shall provide to Landlord such additional information regarding the Acquiring Company as Landlord shall reasonably request, and (v) Tenant shall pay Landlord's reasonable expenses actually incurred in connection therewith. Unless Landlord shall have objected to such assignment or transfer by Tenant within ten (10) business days following Landlord's receipt of the information or items described in (b)(i) and (iii) above, Landlord shall be deemed to have waived its right to object thereto. The transfers described in this paragraph are referred to hereinafter as "**Permitted Transfers**."

Whether or not the Landlord consents, or is required to consent, to any assignment or subletting, and except for Permitted Transfers, the Tenant named herein shall remain fully and primarily liable for the obligations of the tenant hereunder, including, without limitation, the obligation to pay Annual Fixed Rent and Additional Rent provided under this Lease. The Tenant shall give the Landlord notice of any proposed sublease or assignment, whether or not the Landlord's consent is required hereunder, specifying the provisions of the proposed subletting or assignment, including (i) the name and address of the proposed subtenant or assignee, (ii) a copy of the proposed subtenant's or assignee's most recent annual financial statement, (iii) all of the terms and provisions upon which the proposed subletting or assignment is to be made and such other information concerning the proposed subletting or assignment is to be made and such other

information concerning the proposed subtenant or assignee as the Tenant has obtained in connection with the proposed subletting or assignment. The Tenant shall reimburse the Landlord promptly after receiving a written invoice thereof for reasonable legal and other expenses actually incurred by the Landlord in connection with any request by the Tenant for consent to any assignment or subletting. If this Lease is assigned, and Tenant is in default beyond any grace or cure period under the Lease, the Landlord may, upon prior written notice to Tenant, at any time and from time to time, collect rent and other charges from the assignee, sublessee or occupant and apply the net amount collected to the rent and other charges herein reserved, but no such assignment, subletting, occupancy or collection shall be deemed a waiver of the prohibitions contained in this Section 6.8 or the acceptance of the assignee, sublessee or occupant as a tenant, or a release of the Tenant from the further performance by the Tenant of covenants on the part of the Tenant herein contained. The Tenant shall pay to the Landlord fifty percent (50%) of any amounts the Tenant actually receives from any subtenant or assignee as rent, additional rent or other forms of compensation or reimbursement for the sublease, assignment or occupancy of the Premises, after deducting therefrom (i) the then due and payable proportionate monthly share of Annual Fixed Rent, Additional Rent and all other monies due to Landlord pursuant to this Lease (allocable in the case of a sublease to that portion of the Premises being subleased), and (ii) all reasonable and customary sublease expenses (including but not limited to bonafide brokerage fees, fit up expenses, free rent periods, marketing costs and attorney's fees) incurred by Tenant. The preceding sentence shall not apply to any Permitted Transfers. The consent by the Landlord to an assignment or subletting shall not be construed to relieve the Tenant from obtaining the express consent in writing of the Landlord to any further assignment or subletting.

ARTICLE VII.

INDEMNITY AND INSURANCE

Section 7.1 Indemnity.

To the maximum extent this agreement may be made effective according to law, the Tenant agrees to defend, indemnify and save harmless the Landlord from and against all claims, loss, or damage of whatever nature arising from any breach by Tenant of any obligation of Tenant under this Lease beyond applicable notice and cure periods or from any act, omission or negligence of the Tenant, or the Tenant's contractors, licensees, invitees, agents, servants or employees, or arising from any accident, injury or damage whatsoever caused to any person or property, occurring after the date that possession of the Premises is first delivered to the Tenant and until the end of the Term and thereafter, so long as the Tenant is in occupancy of any part of the Premises, in or about the Premises or arising from any accident, injury or damage occurring outside the Premises but within the Building, on the Land, on the access roads and ways, in the parking facilities provided pursuant to the Lease, within University Park or any adjacent area maintained by Landlord or any individual or entity affiliated with Landlord, where such accident,

injury or damage results from an act or omission on the part of the Tenant or the Tenant's agents or employees, licensees, invitees, servants or contractors, *provided* that the foregoing indemnity shall not include any cost or damage arising from any act, omission or negligence of the Landlord, or the Landlord's contractors, licensees, invitees, agents, servants or employees.

Landlord agrees to defend, indemnify and save harmless Tenant from legal action, damages, loss, liability and any other expense in connection with loss of life, bodily or personal injury or property damage, arising from or out of the intentional or willful misconduct or gross negligence of Landlord, its agents, employees, licensees, servants, invitees or contractors, which occur in or about the Premises, outside the Premises but within the Building, on the Land, on the access roads and ways, in the parking facilities provided pursuant to the Lease, within University Park or any adjacent area maintained by Landlord, except to the extent that such loss of life, bodily or personal injury or property damage is due to the willful misconduct or act, omission or neglect of Tenant, its agents, contractors, employees, licensees, invitees or servants.

The foregoing indemnities and hold harmless agreements shall include indemnity against reasonable attorneys' fees and all other costs, expenses and liabilities incurred in connection with any such claim or proceeding brought thereon, and the defense thereof.

Section 7.2 Liability Insurance.

The Tenant agrees to maintain in full force from the date upon which the Tenant first enters the Premises for any reason, throughout the Term, and thereafter, so long as the Tenant is in occupancy of any part of the Premises, a policy of commercial general liability insurance under which the Landlord (and the Building's managing agent, any ground lessor and any holder of a first mortgage on the Property of whom the Tenant is notified in writing by the Landlord, collectively, the "**Additional Named Insureds**") and the Tenant are named as insureds, and under which the insurer provides a contractual liability endorsement insuring against all cost, expense and liability arising out of or based upon any and all claims, accidents, injuries and damages described in Section 7.1, in the broadest form of such coverage from time to time available. Each such policy shall be noncancel1able and nonamendable (to the extent that any proposed amendment reduces the limits or the scope of the insurance required in this Lease) with respect to the Landlord and such ground lessor and first mortgagee without thirty (30) days' prior notice to the Landlord and the Additional Named Insureds and a certificate of insurance shall be delivered to the Landlord. The minimum limits of liability of such insurance as of the Commencement Date shall be Three Million Dollars ($3,000,000.00) per occurrence and Three Million Dollars ($3,000,000.00) in the aggregate for combined bodily injury (or death) and damage to property, and from time to time during the Term such limits of liability shall be increased to reflect such higher limits as are customarily required pursuant to new leases of space in the Boston/Cambridge area with respect to similar properties and similar uses.

Section 7.3 Alterations; Improvements and Betterments; Personal Property at Risk.

The Tenant agrees to maintain in full force at all times throughout the Term, policy(s) of all risk property damage insurance, naming Landlord (and the Additional Named Insureds) and

the Tenant as insureds as their interests may appear, covering all of Tenant's leasehold improvements and alterations to the extent of their full replacement costs as updated from time to time during the Term.

The Tenant agrees that all of the furnishings, fixtures, equipment, effects and property of every kind, nature and description of the Tenant and of all persons claiming by, through or under the Tenant which, during the continuance of this Lease or any occupancy of the Premises by the Tenant or anyone claiming under the Tenant which, during the continuance of this Lease or any occupancy of the Premises by the Tenant or anyone claiming under the Tenant, may be on the Premises or elsewhere in the Building or on the Land or parking facilities provided hereby, shall be at the sole risk and hazard of the Tenant, and if the whole or any part thereof shall be destroyed or damaged by fire, water or otherwise, or by the leakage or bursting of water pipes, steam pipes, or other pipes, by theft or from any other cause, no part of said loss or damage is to be charged to or be borne by the Landlord, except that the Landlord shall in no event be exonerated from any liability to the Tenant (subject to Section 7.5 hereof) for any injury, loss, damage or liability to the extent same is caused by Landlord's, or its agents', employees', servants' or contractors', negligence or willful misconduct.

Section 7.4 Landlord's Insurance.

The Landlord shall carry, or cause to be carried, such casualty and liability insurance upon and with respect to operations at the Building as may from time to time be deemed reasonably prudent by the Landlord or required by any mortgagee holding a mortgage thereon or any ground lessor of the Land, and in any event, insurance against loss by fire and the risks now covered by extended coverage endorsement No. 4 in an amount at least equal to the full replacement cost of the Building, exclusive of foundations, excavations and footings.

Section 7.5 Waiver of Subrogation.

Any insurance carried by either party, or caused to be carried by either party, with respect to the Building, Land, Premises, parking facilities or any property therein or occurrences thereon shall, without further request by either party, include a clause or endorsement denying to the insurer rights of subrogation against the other party to the extent rights have been waived by the insured prior to occurrence of any claim, damage, injury or loss. Each party, notwithstanding any provisions of this Lease to the contrary, hereby waives any claims or rights of recovery against the other for injury or loss, including, without limitation, injury or loss caused by negligence of such other party to the extent covered by insurance actually carried or required to be carried hereunder.

ARTICLE VIII.

CASUALTY AND EMINENT DOMAIN

Section 8.1 Restoration Following Casualties.

If, during the Term, the Building or the Premises shall be damaged by fire or casualty,

subject to the exceptions and limitations provided below, the Landlord shall proceed promptly to exercise diligent efforts to restore, or cause to be restored, the Building or the Premises, as the case may be, to substantially the condition thereof just prior to time of such damage, but the Landlord shall not be responsible for delay in such restoration which may result from External Causes or due to any act, failure to act or neglect of Tenant or Tenant's servants, agents, employees or licensees. The Landlord shall have no obligation to expend in the reconstruction of the Building more than the actual amount of insurance proceeds made available to the Landlord by its insurer and not retained by the Landlord's mortgagee or ground lessor. Any restoration of the Building or the Premises shall be altered to the extent necessary to comply with then current laws and applicable codes.

Section 8.2 Landlord's Termination Election.

If the Landlord reasonably determines that the amount of insurance proceeds available to the Landlord is insufficient to cover the cost of restoring the Building or if in the reasonable opinion of the Landlord the Building has been so damaged that it is appropriate for the Landlord to raze or substantially alter the Building, then the Landlord may terminate this Lease by giving notice to the Tenant within ninety (90) days after the date of the casualty or such later date as is required to allow the Landlord a reasonable time to make either such determination, but in no event later than one hundred twenty (120) days from the date of the casualty. Any such termination shall be effective on the date designated in such notice from the Landlord, but in any event, not later than ninety (90) days after such notice, and if no date is specified, effective upon the delivery of such notice.

Section 8.3 Tenant's Termination Election.

After any casualty which materially impairs the use of a material portion of the Premises, unless the Landlord has earlier advised the Tenant of the Landlord's election to terminate this Lease pursuant to Section 8.2, or to restore the Premises and maintain this Lease in effect pursuant to Section 8.1, the Tenant shall have the right, after the expiration of the ninety (90)-day period provided in Section 8.2 above, to give a written notice to the Landlord requiring the Landlord within ten (10) days thereafter to exercise or waive any right of the Landlord to terminate this Lease pursuant to Section 8.2 as a result of such casualty and if the Landlord fails to give timely notice to the Tenant waiving any right under Section 8.2 to terminate this Lease based on such casualty, the Tenant shall be entitled, at any time until the Landlord has given notice to the Tenant waiving such termination right, to give notice to the Landlord terminating this Lease. Where the Landlord is obligated to restore the Premises, unless such restoration is completed within nine (9) months from the date of the casualty or taking, such period to be subject, however, to extension where the delay in completion of such work is due to External Causes or due to any act, failure to act or neglect of Tenant or Tenant's servants, agents, employees or licensees (but in no event beyond twelve (12) months from the date of the casualty or taking), the Tenant shall have the right to terminate this Lease at any time after the expiration of such 9 -month or 12 -month period, as the case may be, until the restoration is substantially completed, such termination to take effect as of the date of the Tenant's notice.

Section 8.4 Casualty at Expiration of Lease.

If the Premises shall be damaged by fire or casualty in such a manner that the Premises cannot, in the ordinary course, reasonably be expected to be repaired within one hundred twenty (120) days from the commencement of repair work and such damage occurs within the last two (2) years of the Term (as the same may have been extended prior to such fire or casualty), either party shall have the right, by giving notice to the other not later than sixty (60) days after such damage, to terminate this Lease, whereupon this Lease shall terminate as of the date of such notice.

Section 8.5 Eminent Domain.

Except as hereinafter provided, if the Premises, or such portion thereof as to render the balance (if reconstructed to the maximum extent practicable in the circumstances) unsuitable for the Tenant's purposes, shall be taken by condemnation or right of eminent domain, the Landlord or the Tenant shall have the right to terminate this Lease by notice to the other of its desire to do so, *provided* that such notice is given not later than thirty (30) days after the effective date of such taking. If so much of the Building shall be so taken that the Landlord reasonably determines that it would be appropriate to raze or substantially alter the Building, the Landlord shall have the right to terminate this Lease by giving notice to the Tenant of the Landlord's desire to do so not later than thirty (30) days after the effective date of such taking.

Should any part of the Premises be so taken or condemned during the Term, and should this Lease be not terminated in accordance with the foregoing provisions, the Landlord agrees to use reasonable efforts to put what may remain of the Premises into proper condition for use and occupation as nearly like the condition of the Premises prior to such taking as shall be practicable, subject, however, to applicable laws and codes then in existence and to the availability of sufficient proceeds from the eminent domain taking not retained by any mortgagee or ground lessor.

Section 8.6 Rent After Casualty or Taking.

If the Premises shall be damaged by fire or other casualty, the Annual Fixed Rent and Additional Rent shall be justly and equitably abated and reduced according to the nature and extent of the loss of use thereof suffered by the Tenant. In the event of a taking which reduces the area of the Premises, a just proportion of the Annual Fixed Rent shall be abated for the period of such taking.

Section 8.7 Taking Award.

The Landlord shall have and hereby reserves and accepts, and the Tenant hereby grants and assigns to the Landlord, all rights to recover for damages to the Building and the Land, and the leasehold interest hereby created, and to compensation accrued or hereafter to accrue by reason of such taking, damage or destruction, as aforesaid, and by way of confirming the foregoing, the Tenant hereby grants and assigns to the Landlord, all rights to such damages or compensation. Nothing contained herein shall be construed to prevent the Tenant from

prosecuting in any condemnation proceedings a claim for relocation expenses, improvements made by Tenant in the Premises, and Tenant's trade fixtures and equipment in the Premises, *provided* that such action shall not affect the amount of compensation otherwise recoverable by the Landlord from the taking authority pursuant to the preceding sentence.

ARTICLE IX.

DEFAULT

Section 9.1 Tenant's Default.

Each of the following shall constitute an Event of Default:

(a) Failure on the part of the Tenant to pay the Annual Fixed Rent, Additional Rent or other charges for which provision is made herein on or before the date on which the same become due and payable, if such condition continues for ten (10) days after written notice from the Landlord that the same are past due; *provided*, *however*, an Event of Default shall occur hereunder without any obligation of Landlord to give any notice if Landlord has given Tenant written notice under this Section 9.1(a) on more than two (2) occasions during the twelve (12) month interval preceding such failure to pay by Tenant.

(b) Failure on the part of the Tenant to perform or observe any other term or condition contained in this Lease if the Tenant shall not cure such failure within thirty (30) days after notice from the Landlord to the Tenant thereof, *provided* that in the case of breaches of obligations under this Lease which cannot be cured within thirty (30) days through the exercise of due diligence, so long as the Tenant commences such cure within thirty (30) days, and the Tenant diligently pursues such cure, such breach shall not be deemed to create an Event of Default.

(c) The taking of the estate hereby created on execution or by other process of law; or a judicial declaration that the Tenant is bankrupt or insolvent according to law; or any assignment of the property of the Tenant for the benefit of creditors; or the appointment of a receiver, guardian, conservator, trustee in bankruptcy or other similar officer to take charge of all or any substantial part of the Tenant's property by a court of competent jurisdiction; or the filing of an involuntary petition against the Tenant under any provisions of the bankruptcy act now or hereafter enacted if the same is not dismissed within ninety (90) days; the filing by the Tenant of any voluntary petition for relief under provisions of any bankruptcy law now or hereafter enacted.

If an Event of Default shall occur, then, in any such case, whether or not the Term shall have begun, the Landlord lawfully may, immediately or at any time thereafter, give notice to the Tenant specifying the Event of Default and this Lease shall come to an end on the date specified therein as fully and completely as if such date were the date herein originally fixed for the expiration of the Lease Term, and the Tenant will then quit and surrender the Premises to the Landlord, but the Tenant shall remain liable as hereinafter provided.

Section 9.2 Damages.

In the event that this Lease is terminated pursuant to Section 9.1 above, Tenant covenants to pay punctually to Landlord all the sums ("**Periodic Payments**") and perform all the obligations which Tenant covenants in this Lease to pay and to perform in the same manner and to the same extent and at the same time as if this Lease had not been terminated. In calculating the amounts to be paid by Tenant under the foregoing covenant, Tenant shall be credited with the net proceeds of any rent obtained by reletting the Premises, after deducting all of Landlord's reasonable expenses in connection with such reletting, including, without limitation, all repossession costs, brokerage commissions, fees for legal services and expenses for preparing the Premises for reletting. The Landlord may (i) relet the Premises, or any part or parts thereof, for a term or terms which may, at the Landlord's option, exceed or be equal to or less than the period which would otherwise have constituted the balance of the Term, and may grant such concessions and free rent as the Landlord in its reasonable commercial judgment considers advisable or necessary to relet the same, and (ii) make such alterations, repairs and improvements in the Premises as the Landlord in its reasonable commercial judgment considers advisable or necessary to relet the same. The Landlord agrees to use diligent, good faith efforts to relet the Premises, but the Landlord may, at its option, seek to rent other properties of the Landlord prior to reletting the Premises. Subject to the obligations of Landlord in the preceding sentence, no action of the Landlord or failure to relet in accordance with the foregoing shall operate to release or reduce the Tenant's liability hereunder.

At any time following the termination of this Lease, Landlord may elect to receive, in lieu of receiving further Periodic Payments, an amount (the "**Lump Sum Payment**") equal to the excess, if any, of the discounted present value of the total rent reserved for the remainder of the Term after such election over the then discounted present fair rental value of the Premises for the remainder of the Term after such election. In calculating the rent reserved, there shall be included, in addition to the Annual Fixed Rent and all Additional Rent (assuming that Real Estate Taxes and Operating Expenses for the Property will increase annually by a reasonable amount), the value of all other considerations agreed to be paid or performed by Tenant over the remainder of the Term.

Section 9.3 Cumulative Rights.

The specific remedies to which the Landlord may resort under the terms of this Lease are cumulative and are not intended to be exclusive of any other remedies or means of redress to which it may be lawfully entitled in case of any breach or threatened breach by the Tenant of any provisions of this Lease. In addition to the other remedies provided in this Lease, the Landlord shall be entitled to the restraint by injunction of the violation or attempted or threatened violation of any of the covenants, conditions or provisions of this Lease or to a decree compelling specific performance of any such covenants, conditions or provisions. Nothing contained in this Lease shall limit or prejudice the right of the Landlord to prove for and obtain in proceedings for bankruptcy, insolvency or like proceedings by reason of the termination of this Lease, an amount equal to the maximum allowed by any statute or rule of law in effect at the time when, and

governing the proceedings in which, the damages are to be proved, whether or not the amount be greater, equal to, or less than the amount of the loss or damages referred to above.

Section 9.4 Landlord's Self-help.

If the Tenant shall at any time default in the performance of any obligation under this Lease, the Landlord shall have the right, but not the obligation, after expiration of any applicable notice and grace period, upon reasonable, but in no event more than ten (10) days' notice to the Tenant (except in case of emergency in which case no notice need be given), to perform such obligation. The Landlord may exercise its rights under this Section without waiving any other of its rights or releasing the Tenant from any of its obligations under this Lease.

Section 9.5 Enforcement Expenses.

Each party hereto shall promptly reimburse the other for all costs and expenses, including without limitation reasonable legal fees, incurred by such party in exercising and enforcing its rights under this Lease following the other party's failure to comply with its obligations hereunder, whether or not such failure constitutes an Event of Default pursuant to Sections 9.1 or 9.7 hereof. If either party hereto be made or becomes a party to any litigation commenced by or against the other party by or against a third party, or incurs costs or expenses related to such litigation, involving any part of the Property and the enforcement of any of the rights. Obligations or remedies of such party, then the party becoming involved in any such litigation because of a claim against such other party hereto shall receive from such other party hereto all costs and reasonable attorneys' fees incurred by such party in such litigation.

Section 9.6 Late Charges and Interest on Overdue Payments.

In the event that any payment of Annual Fixed Rent or Additional Rent shall remain unpaid for a period of ten (10) days after the same are due, there shall become due to the Landlord from the Tenant, as Additional Rent and as compensation for the Landlord's extra administrative costs in investigating the circumstances of late rent, a late charge of two percent (2%) of the amount overdue. In addition, any Annual Fixed Rent and Additional Rent not paid when due shall bear interest from the date due to the Landlord until paid at the variable rate (the "**Default Interest Rate**") equal to the higher of (i) the rate at which interest accrues on amounts not paid when due under the terms of the Landlord's financing for the Building, as from time to time in effect, and (ii) one hundred and twenty-five percent (125%) of the Prime Rate (as defined in Section 3.3(b) hereof).

Section 9.7 Landlord's Right to Notice and Cure.

The Landlord shall in no event be in default in the performance of any of the Landlord's obligations hereunder unless and until the 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, after notice by the Tenant to the Landlord expressly specifying wherein the Landlord has failed to perform any such obligation.

ARTICLE X.

MORTGAGEES' AND GROUND LESSORS' RIGHTS

Section 10.1 Subordination and Attornment.

This Lease shall, at the election of the holder of any mortgage or ground lease on the Property, be subject and subordinate to any and all mortgages or ground leases on the Property, so that the lien of any such mortgage or ground lease shall be superior to all rights hereby or hereafter vested in the Tenant, *provided* that such mortgagee or ground lessor shall have entered into a non-disturbance and attornment agreement with Tenant, the form of which shall be furnished by the mortgagee or ground lessor, as the case may be, with such reasonable modifications as Tenant shall request within a reasonable time period. Tenant hereby agrees that Tenant will recognize as its landlord under this Lease and shall attorn to any person succeeding to the interest of Landlord in respect of the land and the buildings on or in which the Premises is contained, upon any foreclosure of any mortgage upon such land or buildings or upon the execution of any deed in lieu of such foreclosure in respect of such mortgage. If requested, Tenant shall execute and deliver an instrument or instruments confirming its attornment as provided herein; *provided*, *however*, that no successor-in-interest shall be bound by any payment of rent for more than one (1) month in advance, or any amendment or modification of this lease made without the express written consent of the mortgagee under such mortgage. Any action for the foreclosure of an existing mortgage on the Property shall not terminate this Lease or cause this Lease to be terminable by Tenant by reason of the termination of any such ground lease unless Tenant is specifically named and joined in any such action and unless a judgment is obtained therein against Tenant resulting in a termination of this Lease.

Section 10.2 Prepayment of Rent not to Bind Mortgagee.

No Annual Fixed Rent, Additional Rent, or any other charge payable to the Landlord shall be paid more than thirty (30) days prior to the due date thereof under the terms of this Lease and payments made in violation of this provision shall (except to the extent that such payments are actually received by a mortgagee or ground lessor) be a nullity as against such mortgagee or ground lessor and the Tenant shall be liable for the amount of such payments to such mortgagee or ground lessor.

Section 10.3 Tenant's Duty to Notify Mortgagee; Mortgagee's Ability to Cure.

No act or failure to act on the part of the Landlord which would entitle the Tenant under the terms of this Lease, or by law, to be relieved of the Tenant's obligations to pay Annual Fixed Rent or Additional Rent hereunder or to terminate this Lease, shall result in a release or termination of such obligations of the Tenant or a termination of this Lease unless (i) the Tenant shall have first given written notice of the Landlord's act or failure to act to the Landlord's mortgagees and ground lessors of record, if any, of whose identity and address the Tenant shall have been given notice, specifying the act or failure to act on the part of the Landlord which would give basis to the Tenant's rights; and (ii) such mortgagees and ground lessors, after receipt

of such notice, have failed or refused to correct or cure the condition complained of within a reasonable time thereafter, which shall include a reasonable time for such mortgagee and ground lessor, (but in no event more than thirty (30) days after receipt of such notice) to obtain possession of the Property if possession is necessary for the mortgagee or ground lessor to correct or cure the condition and if the mortgagee or ground lessor notifies the Tenant of its intention to take possession of the Property and correct or cure such condition.

Section 10.4 Estoppel Certificates.

The Tenant shall from time to time, upon not less than fifteen (15) days' prior written request by the Landlord, which such request shall include a copy of such estoppel certificate, execute, acknowledge and deliver to the Landlord a statement in writing certifying to the Landlord or an independent third party, with a true and correct copy of this Lease attached thereto, to the extent such statements continue to be true and accurate, (i) that this Lease is unmodified and in full force and effect (or, if there have been any modifications, that the same is in full force and effect as modified and stating the modifications); (ii) that the Tenant has no knowledge of any defenses, offsets or counterclaims against its obligations to pay the Annual Fixed Rent and Additional Rent and to perform its other covenants under this Lease (or if there are any defenses, offsets, or counterclaims, setting them forth in reasonable detail); (iii) that there are no known uncured defaults of the Landlord or the Tenant under this Lease (or if there are known defaults, setting them forth in reasonable detail); (iv) the dates to which the Annual Fixed Rent, Additional Rent and other charges have been paid; (v) that the Tenant has accepted, is satisfied with, and is in full possession of the Premises, including all improvements, additions, and alterations thereto required to be made by Landlord under the Lease; (vi) that the Landlord has satisfactorily complied with all of the requirements and conditions precedent to the commencement of the Term of the Lease as specified in the Lease; (vii) the Term, the Commencement Date, and any other relevant dates, and that the Tenant has been in occupancy since the Commencement Date and paying rent since the specified dates; (viii) that no monetary or other considerations, including, but not limited to, rental concessions for Landlord, special tenant improvements or Landlord's assumption of prior lease obligations of Tenant have been granted to Tenant by Landlord for entering into Lease, except as specified; (ix) that Tenant has no notice of a prior assignment, hypothecation, or pledge of rents or of the Lease; (x) that the Lease (as same may be amended) represents the entire agreement between Landlord and Tenant; and (xi) such other matters with respect to the Tenant and this Lease as the Landlord may reasonably request in writing. On the Commencement Date, the Tenant shall, at the request of the Landlord, promptly execute, acknowledge and deliver to the Landlord a statement in writing that the Commencement Date has occurred, that the Annual Fixed Rent has begun to accrue and that the Tenant has taken occupancy of the Premises. Any statement delivered pursuant to this Section may be relied upon by any prospective purchaser, mortgagee or ground lessor of the Premises and shall be binding on the Tenant, but any such statement shall not amend this Lease and shall not be binding on the Tenant against Landlord. Landlord shall from time to time, upon not less than fifteen (15) days' prior written request by the Tenant, execute, acknowledge and deliver to the Tenant a statement in writing certifying to the Tenant or an independent third party,

with a true and correct copy of this Lease attached thereto, to the extent such statements continue to be true and accurate (i) that this Lease is unmodified and in full force and effect (or, if there have been any modifications, that the same is in full force and effect as modified and stating the modifications); (ii) that the Landlord has no knowledge of any defenses, offsets or counterclaims against its obligations to perform its covenants under this Lease (or if there are any defenses, offsets, or counterclaims, setting them forth in reasonable detail); (iii) that there are no known uncured defaults of the Tenant or the Landlord under this Lease (or if there are known defaults, setting them forth in reasonable detail); (iv) the dates to which the Annual Fixed Rent, Additional Rent and other charges have been paid, (v) that the Tenant is in full possession of the Premises, including all improvements, additions and alterations thereto required to be made by Landlord under the Lease; (vi) that the Tenant has satisfactorily complied with all of the requirements and conditions precedent to the commencement of the Term of the Lease as specified in the Lease; (vii) that the Tenant has been in occupancy since the Commencement Date and paying rent since the specified dates; (viii) that no monetary or other considerations, including, but not limited to, rental concessions for Landlord, special tenant improvements or Landlord's assumption of prior lease obligations of Tenant have been granted to Tenant by Landlord for entering into the Lease, except as specified: (ix) that Landlord has no notice of a prior assignment, hypothecation, or pledge of rents or of the Lease; (x) that the Lease represents the entire agreement between Landlord and Tenant; and (xi) such other matters with respect to the Tenant and this Lease as the Tenant may reasonably request. Any statement delivered pursuant to this Section may be relied upon by any prospective lender of Tenant and shall be binding on the Landlord.

ARTICLE XI.

MISCELLANEOUS

Section 11.1 Notice of Lease.

The Tenant agrees not to record this Lease, but upon request of either party, both parties shall execute and deliver a Notice of Lease in form appropriate for recording or registration acknowledging the Commencement Date, and if this Lease is terminated before the Term expires, an instrument in such form acknowledging the date of termination.

Section 11.2 Notices.

Whenever any notice, approval, consent, request, election, offer or acceptance is given or made pursuant to this Lease, it shall be in writing. Communications and payments shall be addressed, if to the Landlord, at the Landlord's Address for Notices as set forth in Exhibit A or at such other address as may have been specified by prior notice to the Tenant; and if to the Tenant, at the Tenant's Address for Notices as set forth in Exhibit A or at such other address as may have been specified by prior notice to the Landlord. Any communication so addressed shall be deemed duly given on the earlier of (i) the date received if hand-delivered by either party or mailed by a reputable same-day delivery service, (ii) the day following the day of mailing if mailed by a reputable overnight delivery service, or (iii) on the third business day following the day of mailing if mailed by registered or certified mail, return receipt requested. If the Landlord

by notice to the Tenant at any time designates some other person to receive payments or notices, all payments or notices thereafter by the Tenant shall be paid or given to the agent designated until notice to the contrary is received by the Tenant from the Landlord.

Section 11.3 Successors and Limitation on Liability on the Landlord.

The obligations of this Lease shall run with the land, and this Lease shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns, except that the original Landlord named herein and each successor Landlord shall be liable only for obligations accruing during the period of its ownership. The obligations of the Landlord shall be binding upon the assets of the Landlord consisting of an equity ownership of the Property (and including any proceeds realized from the sale of such Property) but not upon other assets of the Landlord and neither the Tenant, nor anyone claiming by, under or through the Tenant, shall be entitled to obtain any judgment creating personal liability on the part of the Landlord or enforcing any obligations of the Landlord against any assets of the Landlord other than an equity interest in the Property.

Section 11.4 Waivers by the Landlord or Tenant.

The failure of the Landlord or the Tenant to seek redress for violation of, or to insist upon strict performance of, any covenant or condition of this Lease, shall not be deemed a waiver of such violation nor 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 the Landlord of Annual Fixed Rent or Additional Rent with knowledge of the breach of any covenant of this Lease shall not be deemed a waiver of such breach. No provision of this Lease shall be deemed to have been waived by the Landlord or the Tenant, unless such waiver be in writing signed by the waiving party. No consent or waiver, express or implied, by the Landlord or the Tenant to or of any breach of any agreement or duty shall be construed as a waiver or consent to or of any other breach of the same or any other agreement or duty.

Section 11.5 Acceptance of Partial Payments of Rent.

No acceptance by the Landlord of a lesser sum than the Annual Fixed Rent and Additional Rent then due shall be deemed to be other than a partial installment of such rent due, 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 the Landlord may accept such check or payment without prejudice to the Landlord’s right to recover the balance of such installment or pursue any other remedy in this Lease provided. The delivery of keys to any employee of the Landlord or to the Landlord’s agent or any employee thereof shall not operate as a termination of this Lease or a surrender of the Premises.

Section 11.6 Interpretation and Partial Invalidity.

If any term of this Lease, or the application thereof to any person or circumstances, shall to any extent be invalid or unenforceable, the remainder of this Lease, or the application of such term to persons or circumstances other than those as to which it is invalid or unenforceable, shall

not be affected thereby, and each term of this Lease shall be valid and enforceable to the fullest extent permitted by law. The titles of the Articles are for convenience only and not to be considered in construing this Lease. This Lease contains all of the agreements of the parties with respect to the subject matter thereof and supersedes all prior dealings between them with respect to such subject matter.

Section 11.7 Quiet Enjoyment.

So long as the Tenant pays Annual Fixed Rent and Additional Rent, performs all other Tenant covenants of this Lease and observes all conditions hereof, the Tenant shall peaceably and quietly have, hold and enjoy the Premises free of any claims by, through or under the Landlord.

Section 11.8 Brokerage.

Each party represents and warrants to the other that it has had no dealings with any broker or agent in connection with this Lease other than Meredith & Grew and DTZ FHO Partners and shall indemnify and hold harmless the other from claims for any brokerage commission by any other broker or agent claiming same by, through or under the indemnifying party.

Section 11.9 Surrender of Premises and Holding Over.

The Tenant shall surrender possession of the Premises on the last day of the Term and the Tenant waives the right to any notice of termination or notice to quit. The Tenant covenants that upon the expiration or sooner termination of this Lease, it shall, without notice, deliver up and surrender possession of the Premises in the same condition in which the Tenant has agreed to keep the same during the continuance of this Lease and in accordance with the terms hereof, reasonable wear and tear and damage by fire or other casualty or eminent domain taking and damage by the negligence or willful misconduct of Landlord or its agents, contractors or employees excepted, first removing therefrom all goods and effects of the Tenant and any leasehold improvements Landlord specified for removal pursuant to Section 4.2, and repairing all damage caused by such removal. Upon the expiration of this Lease or if the Premises should be abandoned by the Tenant, or this Lease should terminate for any cause, and at the time of such expiration, vacation, abandonment or termination, the Tenant or Tenant's agents, subtenants or any other person should leave any property of any kind or character on or in the Premises, the fact of such leaving of property on or in the Premises shall be conclusive evidence of intent by the Tenant, and individuals and entities deriving their rights through the Tenant, to abandon such property so left in or upon the Premises, and such leaving shall constitute abandonment of the property. Landlord shall have the right and authority without notice to the Tenant or anyone else, to remove and destroy, or to sell or authorize disposal of such property, or any part thereof, without being in any way liable to the Tenant therefor and the proceeds thereof shall belong to the Landlord as compensation for the removal and disposition of such property.

If the Tenant fails to surrender possession of the Premises upon the expiration or sooner termination of this Lease, the Tenant shall pay to Landlord, as rent for any period after the

expiration or sooner termination of this Lease an amount equal to one hundred fifty percent (150%) of the Annual Fixed Rent and the Additional Rent required to be paid under this Lease as applied to any period in which the Tenant shall remain in possession. Acceptance by the Landlord of such payments shall not constitute a consent to a holdover hereunder or result in a renewal or extension of the Tenant's rights of occupancy. Such payments shall be in addition to and shall not affect or limit the Landlord's right of re-entry, Landlord's right to collect such damages as may be available at law, or any other rights of the Landlord under this Lease or as provided by law.

Section 11.10 Ground Lease.

This Lease is in all respects subject to the ground lease (the "**Ground Lease**") between the Landlord's predecessor in interest as lessee and the Massachusetts Institute of Technology ("**MIT**") as lessor dated April 20, 1986, as amended by that certain First Amendment to Construction and Lease Agreement dated as of December 15, 1997, and that certain Second Amendment to Construction and Lease Agreement dated as of June 12, 2000. If the Ground Lease shall terminate during the Term for any reason whatsoever, except as may otherwise be agreed in the Non-Disturbance Agreement, this Lease shall be terminable by Landlord in its sole discretion with the same force and effect as if such termination date had been named herein as the date of expiration hereof.

Section 11.11 Security Deposit.

INTENTIONALLY OMITTED

Section 11.12 Financial Reporting.

Tenant shall from time to time (but at least annually) on the anniversary of the Lease provide Landlord with financial statements of Tenant, together with related statements of Tenant's operations for Tenant's most recent fiscal year then ended, certified by an independent certified public accounting firm.

Section 11.13 Cambridge Employment Plan.

The Tenant agrees to sign an agreement with the Employment and Training Agency designated by the City Manager of the City of Cambridge as provided in subsections (a) - (g) of Section 24-4 of Ordinance Number 1005 of the City of Cambridge, adopted April 23, 1984.

Section 11.14 Parking and Transportation Demand Management.

Tenant covenants and agrees to work cooperatively with Landlord to develop a parking and transportation demand management ("**PTDM**") program that comprises part of a comprehensive PTDM for University Park. In connection therewith, the use of single occupant vehicle commuting will be discouraged and the use of alternative modes of transportation and/or alternative work hours will be promoted. Without limitation of the foregoing, Tenant agrees that its PTDM program (and Tenant will require in any sublease or occupancy agreement permitting

occupancy in the Premises that such occupant's PTDM program) will include offering a subsidized MBTA transit pass, either constituting a full subsidy or a subsidy in an amount equal to the maximum deductible amount therefore allowed under the federal tax code, to any employee working in the Premises requesting one. Tenant agrees to comply with the traffic mitigation measures required by the City of Cambridge, and Tenant shall otherwise comply with all legal requirements of the City of Cambridge pertaining thereto.

IN WITNESS WHEREOF, this Lease has been executed and delivered as of the date first above written as a sealed instrument.

LANDLORD: **FC 64 SIDNEY, INC.,**
a Massachusetts corporation

By: /s/ Michael Farley
Michael Farley
Vice President

TENANT: **GENZYME CORPORATION,**
a Massachusetts corporation

By: /s/ Henri Termeer
Title: CEO

EXHIBIT A

Basic Lease Terms

Annual Fixed Rent for the Term:	Year 1 - $35.00 per rentable square foot, NNN Year 2 - $36.00 per rentable square foot, NNN Year 3 - $37.00 per rentable square foot, NNN
Security Deposit:	Intentionally Omitted
Initial Term:	Approximately three (3) years, commencing on the Commencement Date (as set forth in Section 2.5), and expiring on February 8, 2011.
Landlord's Original Address:	FC 64 Sidney Street, Inc. Terminal Tower 50 Public Square, Suite 1360 Cleveland, Ohio 44113-2267 Attention: General Counsel
Landlord's Address for Notices:	Landlord's Original Address with copies in like manner to: Forest City Commercial Management, Inc. 38 Sidney Street Cambridge, Massachusetts 02139-4234 Attention: Michael Farley
Tenant's Address for Notices:	Genzyme Corporation Metro West Summit 11 Pleasant Street Connector Framingham, MA 01701 Attn: Henry Fitzgerald With copies in like manner to: Genzyme Corporation 500 Kendall Street Cambridge, MA 02142 Attn: Bob Hesslein, Esq. and Edwards Angell Palmer & Dodge LLP 111 Huntington Avenue At Prudential Center Boston, MA 02199-7613 Attn: Thomas G. Schnorr, Esq.
Premises:	7,357 total rentable square feet (rsf) comprising that portion of the 3rd floor of the Building depicted on Exhibit B-2 to the Lease.

Parking Privileges:	During the Term, Landlord shall provide, and Tenant shall pay for, eleven (11) parking passes. During the Term the Tenant shall pay the market rate from time to time in effect for parking passes provided by Landlord as aforesaid. Market rate shall be reasonably determined by Landlord based on comparable parking spaces and usage rights available in the Kendall Square/Cambridge Center area. Tenant shall have the right to lease additional parking passes, as available, on a month to month basis. Visitor parking will also be available within the parking garage at standard hourly rates. Should Tenant expand the Premises in the future, the Parking Privileges shall be increased on the basis of one and one-half parking passes per each one thousand square feet of space leased.
Permitted Uses:	Research and development and general office use.

EXHIBIT B

Legal Description

EXHIBIT B-1

Map of University Park

EXHIBIT B-2

Depiction of Premises

EXHIBIT C

Work Letter

1. Landlord shall provide to Tenant an allowance (the "**Leasehold Improvements Allowance**") equal to One Hundred Forty Seven Thousand One Hundred Forty and 00/100 Dollars ($147,140.00), for application to the costs and expenses, more particularly set forth below, incurred by or on behalf of Tenant. If Tenant incurs costs in excess of the Leasehold Improvements Allowance, then all such costs shall be born solely by Tenant. Any unused Leasehold Improvements Allowance may be applied as rent credit(s) at the beginning of the Term.

2. The application of the Leasehold Improvement Allowance by Landlord shall be limited to payment of the following costs and expenses incurred by or on behalf of Tenant in connection with leasehold improvements to the Premises: the actual documented and verified cost pursuant to Tenant's design and construction contracts, including without limitation the associated contractor's overhead and profit and general conditions, incurred in the construction of the leasehold improvements to the Premises, except for the making of improvements, installation of items which are moveable rather than permanent improvements,(but excluding cabling), examples of which may include furniture, telephone communications and security equipment, and bench-top laboratory equipment items such as microscopes. Notwithstanding the foregoing, Tenant may use up to Two Thousand Five Hundred Dollars ($2,500.00) of the Leasehold Improvement Allowance for the cost of free-standing furniture for the Premises.

3. During the construction of any leasehold improvements with respect to which Tenant desires to have the Leasehold Improvements Allowance applied, and in accordance with the commercially reasonable terms and conditions typically imposed upon a landlord pursuant to a construction loan agreement, such as, without limitation, retainage, lien waiver, and other requisition conditions, Tenant shall, on a monthly basis (as the Tenant's contractor submits to Tenant its application for payment), deliver to Landlord a requisition for payment showing the costs of the leasehold improvements in question and the amount of the current payment requested from Landlord for disbursement from the Leasehold Improvements Allowance within thirty (30) days after receipt of Tenant's requisition. Payments made on account of Tenant's requisitions shall be made from the Leasehold Improvement Allowance. Following the completion of any such leasehold improvements, Tenant shall deliver to the Landlord, within ninety (90) days of completion, a statement showing the final costs of such leasehold improvements, the amounts paid to date, or on behalf of the Tenant, and any amounts available for release of retainage.

EXHIBIT D

Standard Services

Landlord shall provide, or cause to be provided, the following standard services throughout the Term, which services may be modified from time to time by Landlord:

A. Regular maintenance of interior plants and exterior landscaping of the Building and all University Park common areas.

B. Regular maintenance, sweeping and snow removal of exterior areas around the Building, parking areas and throughout University Park.

C. Complete interior and exterior cleaning of all windows two times per year.

D. Daily, weekday maintenance of hallways, passenger elevators, common area bathrooms, lobby areas and vestibules.

E. Periodic cleaning of stairwells, freight elevators, and back of house areas.

F. Daily, weekday rubbish removal of all common area trash receptacles.

G. Daily, weekday cleaning of tenant space in a manner comparable to similar first-class office space in the Cambridge area.

H. Maintenance and repair of all base Building mechanical, electrical, plumbing and life safety systems and all other building systems serving the common areas.

I. Operation and maintenance of Building surveillance and alarm systems, links to the University Park command center, and security officer services in the Building and throughout University Park as appropriate in Landlord's reasonable determination.

J. Conditioned air for HVAC purposes shall be provided to the Premises from central mechanical equipment and shall be available 24 hours per day, 7 days per week; *provided*, *however*, Landlord reserves the right, pursuant to Section 3.5 of this Lease, to charge for conditioned air provided after normal business hours (8am - 6pm) if Landlord reasonably determines that demand for such conditioned air is not consistently needed throughout the Building during such non-business hours. Any charges for conditioned air shall include Landlord's reasonable estimate of the cost of energy, additional equipment maintenance and wear and tear associated with such after hours use, but shall not include a surcharge or profit to Landlord.

K. All utilities for all interior common areas and exterior building lighting.

L. Regular maintenance of banners, building directories and other building standard directional signage and amenities.

M. Reasonably adequate water and sewer service to the Premises.

EXHIBIT E

Rules and Regulations

DEFINITIONS

Wherever in these Rules and Regulations the word "**Tenant**" is used, it shall be taken to apply to and include the Tenant and its agents, employees, invitees, licensees, contractors, any subtenants and is to be deemed of such number and gender as the circumstances require. The word "**Premises**" is to be taken to include the space covered by the Lease. The word "**Landlord**" shall be taken to include the employees and agents of Landlord. Other capitalized terms used but not defined herein shall have the meanings set forth in the Lease. Any consents or approvals required of Landlord herein shall not be unreasonably withheld or delayed.

GENERAL USE OF BUILDING

A. Space for admitting natural light into any public area or tenanted space of the Building shall not be covered or obstructed by Tenant except in a manner reasonably approved by Landlord.

B. Toilets, showers and other like apparatus shall be used only for the purpose for which they were constructed.

C. Intentionally Omitted.

D. No sign, advertisement, notice or the like, shall be used in the Building by Tenant (other than at its office or as permitted in the Lease). If Tenant violates the foregoing, Landlord may remove the violation without liability and may charge all costs and expenses incurred in so doing to Tenant.

E. Tenant shall not throw or permit to be thrown anything out of windows or doors or down passages or elsewhere in the Building, or bring or keep any pets therein, or commit or make any indecent or improper acts or noises. In addition, Tenant shall not do or permit anything which will obstruct, injure, annoy or interfere with other tenants or those having business with them, or affect any insurance rate on the Building or violate any provision of any insurance policy on the Building.

F. Unless expressly permitted by the Landlord in writing:

(1) No additional locks or similar devices shall be attached to any door or window and no keys other than those provided by the Landlord shall be made for any door. If more than two keys for one lock are desired by the Tenant, the Landlord may provide the same upon payment by the Tenant. Upon termination of this lease or of the Tenant's possession, the Lessee shall surrender all keys to the Premises and shall explain to the Landlord all combination locks on safes, cabinets and vaults.

(2) In order to insure proper use and care of the Premises Tenant shall not install any shades, blinds, or awnings or any interior window treatment without consent of Landlord. Blinds must be building standard.

(3) All doors to the Premises are to be kept closed at all times except when in actual use for entrance to or exit from such Premises. The Tenant shall be responsible for the locking of doors and the closing of any transoms and windows in and to the Premises. Any damage or loss resulting from violation of this rule shall be paid for by the Tenant.

(4) The Tenant shall not install or operate any steam or internal combustion engine, boiler, machinery in or about the Premises, or carry on any mechanical business therein. All equipment of any electrical or mechanical nature shall be placed in settings which absorb and prevent any vibration, noise or annoyance.

G. Landlord shall designate the time when and the method whereby freight, small office equipment, furniture, safes and other like articles may be brought into, moved or removed from the Building or Premises, and to designate the location for temporary disposition of such items.

H. In order to insure proper use and care of the Premises Tenant shall not allow anyone other than Landlord's employees or contractors to clean the Premises without Landlord's permission.

I. The Premises shall not be defaced in any way. No changes in the HVAC, electrical fixtures or other appurtenances of said Premises shall be made without the prior approval of Landlord and in accordance with Landlord's construction rules and regulations.

J. For the general welfare of all tenants and the security of the Building, Landlord may require all persons entering and/or leaving the Building on weekends and holidays and between the hours of 6:00 p.m. and 8:00 a.m. to register with the Building attendant or custodian by signing his name and writing his destination in the Building, and the time of entry and actual or anticipated departure, or other procedures deemed necessary by Lessor. Landlord may deny entry during such hours to any person who fails to provide satisfactory identification.

K. No animals, birds, pets, and no bicycles or vehicles of any kind shall be brought into or kept in or about said Premises or the lobby or halls of the Building. Tenant shall not cause or permit any unusual or objectionable odors, noises or vibrations to be produced upon or emanate from said Premises.

L. Unless specifically authorized by Landlord, employees or agents of Landlord shall not perform for nor be asked by Tenant to perform work other than their regularly assigned duties.

M. Landlord shall have the right to prohibit any advertising by Tenant which, in Landlord's reasonable opinion tends to impair the reputation of the Building or its desirability as

an office building and, upon written notice from Landlord, Tenant shall promptly discontinue such advertising.

N. Canvassing, soliciting and peddling in the Building is prohibited and Tenant shall cooperate to prevent the same from occurring.

O. All parking, Building operation, or construction rules and regulations which may be established from time to time by Landlord on a uniform basis shall be obeyed.

P Tenant shall not place a load on any floor of said Premises exceeding the floor load limits for the Building. Landlord reserves the right to prescribe the weight and position of all safes and heavy equipment.

Q. Tenant shall not install or use any air conditioning or heating device or system other than those approved by Landlord.

R. Landlord shall have the right to make such other and further reasonable rules and regulations as in the judgment of Landlord, may from time to time be needful for the safety, appearance, care and cleanliness of the Building and for the preservation of good order therein, and Tenant shall be given reasonable notice of same.

S. The access road and loading areas, parking areas, sidewalks, entrances, lobbies, halls, walkways, elevators, stairways and other common area provided by Landlord shall not be obstructed by Tenant, or used for other purpose than for ingress and egress.

T. In order to insure proper use and care of the Premises Tenant shall not install any call boxes or communications systems or wiring of any kind without Landlord’s permission and direction.

U. In order to insure proper use and care of the Premises Tenant shall not manufacture any commodity, or prepare or dispense for sale, except through vending machines for the benefit of employees and invitees of Tenant, any foods or beverages, tobacco, flowers, or other commodities or articles without the written consent of Landlord.

V. In order to insure use and care of the Premises Tenant shall not enter any janitors’ closets, mechanical or electrical areas, telephone closets, loading areas, roof or Building storage areas without the written consent of Landlord.

W. In order to insure proper use and care of the Premises Tenant shall not place doormats in public corridors without consent of Landlord.

EXHIBIT F

Roof Equipment

EXHIBIT G

Removable Items

Property of Landlord: All built-in surfaces, lab benches, built-in wooden cubicles, elevators, dumbwaiters, lifts piping and instrumentation for utilities, autoclaves, HVAC equipment, biological safety cabinets, fume hoods, cold rooms, utility generation equipment including RO/DI water, plant steam boiler, hot water boilers, vacuum pump skid, compressed air skid, and hot water circulation pumps.

Property of Tenant: All movable shelving and racks, all carts, all medical gas tanks, all movable office furniture, all modular cubicles, all freezers, refrigerators, cryostorage equipment, snorkels, incubators, centrifuges, microscopes, balances, glasswashers, analytical equipment, computers, telephone and computer racks and hubs.

UNIVERSITY PARK AT MIT
TENANT ACTIVITY NOTICE

DATE: May 25, 2010

REASON FOR NOTICE:

NEW TENANT	CORRECTION	ADDRESS CHANGE
VACATING	SUITE CHANGE	ONE-TIME CREDIT
EXPANSION	RENT CHANGE	ONE-TIME DEBIT
DEDUCTION	NAME CHANGE	SPECIAL CHARGES

OTHER: **LEASE EXTENSION - 1st Amendment to Lease (for lease dated 1/23/08)**

EFFECTIVE DATE:	5/21/2010	LEASE EXPIRATION DATE:	2/8/2014
COMMENCEMENT DATE:	3/1/2008	MONTHS FREE:	
OCCUPANCY DATE:		VACATING DATE:	

	PRESENT INFORMATION	NEW INFORMATION
TENANT NAME	Genzyme Corporation	
SUITE NUMBER	380	
MONTHLY RENTAL	Year 1 - $21,457.92 Year 2-$22,071.00 Year 3 - $22,684.08	Year 4-$30,654.17 Year 5-$31,267.25 Year 6-$31,880.34
SQ. FT. OCCUPIED	7,357	
RATE PER SQUARE FOOT	Year 1 - $35.00 Year 2 - $36.00 Year 3 - $37.00	Year 4 - $50.00 Year 5-$51.00 Year 6 - $52.00
ELECTRIC CHARGES	Separately metered	
PARKING CHARGES	11 spaces	
TERMINATION OPTION		Tenant to give notice before 7/8/2010. If exercised, the lease termination is 2/8/2011
BILLING ADDRESS	Richards Building 64 Sidney Street Cambridge, MA 02139	

FIRST AMENDMENT TO LEASE

THIS FIRST AMENDMENT TO LEASE (hereinafter referred to as the "**Amendment**") is dated as of this 21st day of May, 2010 by and between FC 64 SIDNEY, INC., a Massachusetts corporation ("**Landlord**") and GENZYME CORPORATION, a Massachusetts corporation ("**Tenant**"). Capitalized terms used herein and not otherwise defined shall have the meaning ascribed to such term in the Lease.

WITNESSETH

WHEREAS, Landlord and Tenant entered into that certain Lease dated as of January 23, 2008 (the "**Lease**"), with respect to certain premises located at 64 Sidney Street, Cambridge, Massachusetts; and

WHEREAS, Landlord and Tenant desire to amend the Lease to, among other changes, extend the term of the Lease, all as set forth in this Amendment.

NOW, THEREFORE, in consideration of the premises and mutual covenants hereinafter contained and other valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Landlord and Tenant hereby agree to amend the Lease effective as of the date hereof as follows:

1. The term "**Initial Term**" on Exhibit A to the Lease shall be deleted in its entirety and replaced as follows:

"Initial Term: Approximately six (6) years, commencing on March 1, 2008 and terminating on February 8, 2014."

2. The term "**Annual Fixed Rent for the Term**" on Exhibit A to the Lease shall be deleted in its entirety and replaced as follows:

‘‘Annual Fixed Rent for the Term:	March 1, 2008 - February 8, 2009:	$35.00 per rentable square foot, NNN
	February 9, 2009 - February 8, 2010:	$36.00 per rentable square foot, NNN
	February 9, 2010 - February 8, 2011:	$37.00 per rentable square foot, NNN
	February 9, 2011 - February 8, 2012:	$50.00 per rentable square foot, NNN”
	February 9, 2012 - February 8, 2013:	$51.00 per rentable square foot, NNN”
	February 9, 2013 - February 8, 2014:	$52.00 per rentable square foot, NNN”

3. Section 2.6 of the Lease shall be amended by deleting the first paragraph thereof and replacing it with the following paragraph:

   “Provided that there has been no Event of Default which is uncured and continuing on the part of the Tenant and the Tenant is, as of the date of such exercise and as of the commencement date of the Extension Term (as such term is defined below), actually occupying sixty percent (60%) or more of the Premises for its own business purposes, the Tenant shall have the right to extend the Term hereof for one (1) period of three (3) years (such period referred to herein as the “**Extension Term**”).”

4. Section 2.6(a) of the Lease shall be amended by deleting the words and numbers “six (6)” in the last sentence of said section and replacing it with “three (3)”.

5. The following shall be added as Section 2.8 of the Lease:

   “Section 2.8 - Termination Option. Tenant shall have a one-time option to terminate this Lease (“**Termination Option**”) by giving Landlord written notice of Tenant’s exercise of the Termination Option on or before July 8, 2010. If the Termination Option is properly exercised the Tenant, the Lease shall be terminated effective as of February 8, 2011.”

6. Section 4.1 of the Lease shall be amended by adding the following sentences to the end of this Section:

   “Notwithstanding the foregoing, Tenant shall have the right to provide, install, replace, maintain and remove its own security system within the Premises during the Initial Term of the Lease and any and all of the extensions. This shall include the right to provide its own security officer coverage and install, in a workmanlike fashion, system components of Tenant’s choosing

that include but are not limited to security cameras, televisions, monitors and other electronic monitoring devises, electronic door strikes, door contacts, exit sensors, car readers (which may be mounted immediately outside the Premises in common areas), motion detectors, glass break detectors and other similar security systems and/or methods which will protect the Premises to meet Tenant's corporate security standards."

7. Section 11.9 of the Lease shall be amended by adding the following sentences to the end of the first paragraph thereof:

"Notwithstanding anything to the contrary contained in this Lease, Tenant shall not be obligated to restore the Premises or remove any alterations or additions to the Premises at the end of the Term, except for any new items installed after the expiration of the Initial Term which Landlord identified in written notice delivered prior to Landlord approving Tenant's plans for any alterations or improvements as items which Tenant must remove prior to the expiration of the Lease. Tenant shall not be required to remove its computer and telecommunications wiring, cable and other equipment; provided, however, that to the extent that Tenant replaces any such wiring and cable during the Initial Term or any other extension thereof then it shall, as part of that installation pull and remove from the Premises any wiring and cable that it no longer uses from the specific portion of the Premises in which Tenant is replacing such wiring or cabling. Tenant will yield-up the Premises to Landlord in broom swept condition, reasonable wear and tear and damage resulting from casualty excepted."

8. Each of Tenant and Landlord warrant and represent to the other that it has had no dealings with any broker or agent in connection with this Lease other than FHO Partners and Colliers Meredith & Grew (the "**Brokers**"). Tenant and Landlord agree to defend with counsel reasonably approved by the other, hold harmless and indemnify the other from and against any and all cost, expense or liability for any compensation, commissions and charges which may be asserted against the other as a result of the other's breach of this warranty. Landlord shall pay commissions due and owing to FHO Partners at the rate of $1.00 per square foot of the Premises per year during the Extension Term, which shall be paid as follows: fifty percent (50%) upon the execution of this Amendment and fifty percent (50%) on or prior to February 8, 2011, as discussed in more particular detail in a separate agreement with Broker.

9. Any brokerage commission due in connection with this Amendment shall be paid by Landlord pursuant to the terms of a separate agreement.

10. Landlord and Tenant agree to execute a Notice of Lease within thirty (30) days of the date of this Amendment. Landlord hereby authorizes Tenant to record the Notice of Lease upon execution by both parties.

11. This Amendment may be executed in any number of counterparts, each of which shall be deemed an original and all of which together shall constitute one and the same instrument.

12. The Lease, as amended hereby, is in full force and effect, and is ratified and confirmed, and there are no other amendments or modifications thereto.

13. This Amendment will be governed by and construed in accordance with the laws of the Commonwealth of Massachusetts.

[Remainder of page intentionally left blank]

IN WITNESS WHEREOF, the parties hereto have executed this Amendment under seal, as of the day, month and year first above written.

FC 64 SIDNEY, INC.,
a Massachusetts corporation

By: /s/ Michael Farley
Name: Michael Farley
Title: Vice President

GENZYME CORPORATION,
a Massachusetts corporation

By: /s/ Michael Wyzga
Name: Michael Wyzga
Title: CFO/EVP

SECOND AMENDMENT TO LEASE

THIS SECOND AMENDMENT TO LEASE (hereinafter referred to as the "**Amendment**") is dated as of this 24th day of April, 2012 by and between UP 64 SIDNEY, LLC, a Delaware limited liability company ("**Landlord**") and GENZYME CORPORATION, a Massachusetts corporation ("**Tenant**"). Capitalized terms used herein and not otherwise defined shall have the meaning ascribed to such term in the Lease.

W I T N E S S E T H

WHEREAS, Landlord's predecessor in interest and Tenant entered into that certain Lease dated as of January 23, 2008, as amended by that certain First Amendment to Lease dated as of May 21, 2010 (collectively, the "**Lease**"), with respect to certain premises located at 64 Sidney Street, Cambridge, Massachusetts;

WHEREAS, Landlord and Tenant desire to amend the Lease to, among other changes, ex the term of the Lease, all as set forth in this Amendment.

NOW, THEREFORE, in consideration of the premises and mutual covenants hereinafter contained and other valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Landlord and Tenant hereby agree to amend the Lease effective as of the date hereof as follows:

1. The term "**Premises**" on Exhibit A to the Lease shall be deleted in its entirety and replaced with the following:

"**Original Premises**	7,357 total rentable square feet (rsf) comprising that portion of the 3rd floor of the Building commonly referred to as Suite 380 depicted on Exhibit B-2 to the Lease.
Second Amendment Premises	4,335 rsf comprising that portion of the 3rd floor of the Building commonly referred to as Suite 300 depicted on Exhibit B-2 to the Lease.

The term Original Premises and Second Amendment Premises shall be referred to herein collectively as the "**Premises**"."

2. Section 2.5 of the Lease shall be deleted in its entirety and replaced with the following:

"Section 2.5 - Commencement Date.

"**Commencement Date**" with respect to the Original Premises means March 1, 2008. "**Commencement Date**" with respect to the Second Amendment Premises means May 1, 2012."

3. Annual Fixed Rent with respect to the Second Amendment Premises shall commence on June 1, 2012, and shall adjust per the terms of the Lease on February 9, 2013.

4. The Second Amendment Premises shall be delivered clean and in its "as is" condition.

5. The term "**Parking Privileges**" on Exhibit A shall be amended by deleting the word and number "eleven (11)" and replacing it with "eighteen (18)".

6. Landlord and Tenant represent and warrant that they have had no dealings with any broker or agent in connection with this Amendment other than Colliers International (the "**Broker**") and each party shall indemnify and hold harmless the other party from claims for any brokerage commission. Broker shall be paid a brokerage fee by Landlord pursuant to the terms of a separate agreement.

7. This Amendment may be executed in any number of counterparts, each of which shall be deemed an original and all of which together shall constitute one and the same instrument.

8. The Lease, as amended hereby, is in full force and effect, and is ratified and confirmed, and there are no other amendments or modifications thereto.

9. This Amendment will be governed by and construed in accordance with the laws of the Commonwealth of Massachusetts.

IN WITNESS WHEREOF, the parties hereto have executed this Amendment under seal, as of the day, month and year first above written.

GENZYME CORPORATION,
a Massachusetts corporation

By: /s/ Marc Esteva

Name: Marc Esteva

Title: Chief Financial Officer

64 SIDNEY STREET
UP 64 SIDNEY STREET, LLC
a Delaware limited liability company

By: FC HCN University Park, LLC,
a Delaware limited liability company
Its Sole Member

By: Forest City University Park, LLC,
a Delaware limited liability company
Its Managing Member

By: /s/ Michael Farley

Name: Michael Farley

Title: V.P.

THIRD AMENDMENT TO LEASE

THIS THIRD AMENDMENT TO LEASE (hereinafter referred to as the "**Amendment**") is dated as of this 30th day of September, 2013 by and between UP 64 SIDNEY, LLC, a Delaware limited liability company ("**Landlord**") and GENZYME CORPORATION, a Massachusetts corporation ("**Tenant**"). Capitalized terms used herein and not otherwise defined shall have the meaning ascribed to such term in the Lease.

W I T N E S S E T H

WHEREAS, Landlord's predecessor in interest and Tenant entered into that certain Lease dated as of January 23, 2008, as amended by that certain First Amendment to Lease dated as of May 21, 2010, and that certain Second Amendment to Lease dated as of April 24, 2012 (collectively, the "**Lease**"), with respect to certain premises located at 64 Sidney Street, Cambridge, Massachusetts;

WHEREAS, Landlord and Tenant desire to amend the Lease to, among other changes, extend the term of the Lease, all as set forth in this Amendment.

NOW, THEREFORE, in consideration of the premises and mutual covenants hereinafter contained and other valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Landlord and Tenant hereby agree to amend the Lease effective as of the date hereof as follows:

1. The term "**Initial Term**" on Exhibit A to the Lease shall be deleted in its entirety and replaced as follows:

"**Initial Term**:	Approximately nine (9) years, commencing on March 1, 2008 and terminating on February 28, 2017."

2. The term "**Annual Fixed Rent for the Term**" on Exhibit A to the Lease shall be amended by adding the following thereto:

"**Annual Fixed Rent for the Term**:	February 9, 2014 – February 8, 2015:	$53.00 per rentable square foot, NNN
	February 9, 2015 – February 8, 2016:	$54.00 per rentable square foot, NNN
	February 9, 2016 – February 28, 2017:	$55.00 per rentable square foot, NNN"

3. Section 2.6 of the Lease shall be amended by deleting the first paragraph thereof and replacing it with the following paragraph:

"Provided that there has been no Event of Default which is uncured and continuing on the part of the Tenant and the Tenant (by itself or in combination with any transferee of a Permitted Transfers and/or Collaborative Users, as defined below) is, as of the date of such exercise and as of the commencement date of the Extension Term (as such term is defined below), actually occupying sixty percent (60%) or more of the Premises for its own business purposes, the Tenant shall have the right to extend the Term hereof for two (2) periods of three (3) years each (each such period referred to herein as the "**Extension Term**")."

4. Section 2.6(a) of the Lease shall be amended by:

   (a) deleting the words and numbers "seven (7)" in the second line of said section and replacing them with the words and numbers "nine (9)"; and

   (b) deleting the words and numbers "three (3)" in the last sentence of said section and replacing them with the words and numbers "six (6)".

5. Section 2.6(c) of the Lease shall be amended by deleting the following proviso starting on the eighth (8^{th}) line of said section:

   "provided, however, in no event shall the Extension Fair Rental Value be an amount that is less than the Annual Fixed Rent due during the period immediately preceding such extension."

6. Section 2.8 of the Lease shall be deleted in its entirety and replaced with the following:

   "Section 2.8 - Termination Option.

   Tenant shall have the right to terminate the Lease effective February 8, 2015, by giving Landlord four (4) months prior written notice (the "**First Termination Notice**") and by paying a termination fee at the time of delivery of the First Termination Notice equal to eight-two and one half percent (82.5%) of the Annual Fixed Rent and Additional Rent that then remains outstanding through the end of the Initial Term. The Additional Rent component of the termination fee shall be calculated using utility rates for vacant space, shall exclude any cleaning charges for the Premises, and shall otherwise be based on the actual charges of Additional Rent being billed to Tenant by Landlord at the time of the First Termination Notice.

   Additionally, Tenant shall have the right to terminate the Lease effective February 8, 2016, by giving Landlord six (6) months prior written notice (the "**Second Termination Notice**") and by paying a termination fee at the time of delivery of the Second Termination Notice equal to eight-two and one half percent (82.5%) of the Annual Fixed Rent and Additional Rent that then remains outstanding through the end of the Initial Term. The Additional Rent component of the termination fee

shall be calculated using utility rates for vacant space, shall exclude any cleaning charges for the Premises, and shall otherwise be based on the actual charges of Additional Rent being billed to Tenant by Landlord at the time of the Second Termination Notice."

7. Section 4.1 of the Lease shall be amended by adding the following sentence at the end thereof:

"Notwithstanding anything in the Lease to the contrary, Tenant shall remove any security systems installed by Tenant in the Premises at the end of the Term and repair any damage caused by such removal."

8. Tenant is extending the Initial Term of this Lease with the understanding that Tenant is accepting the Premises in their current as-is condition. In the event Tenant makes improvements to the Premises, Tenant shall hire its own contractors, subcontractors, engineers, and architects, subject to Landlord's reasonable approval, at its expense, to perform Tenant's alterations work. All work to be performed in the Premises shall be subject to Landlord approval which shall not be unreasonably withheld, conditioned or delayed, and performed in accordance with established tenant construction rules and regulations and in accordance with the requirements in the Lease. There shall be no construction oversight fee paid to Landlord. However, Landlord shall be reimbursed for any reasonable and actual third-party, out-of-pocket expenses incurred by Landlord in the review and approval of Tenant's plans, specifications, improvements and construction, but in no event shall the reimbursement be greater than $5,000 in the aggregate. Landlord shall cooperate with Tenant and make commercially reasonable efforts to assist Tenant with obtaining the necessary governmental permits for the construction of Tenant's alterations.

9. The Tenant shall not assign, mortgage, pledge, hypothecate or otherwise transfer this Lease, or sublet (which term, without limitation, shall include granting of concessions, licenses and the like) the whole or any part of the Premises without, in each instance, having first received the consent of the Landlord which consent shall not be unreasonably withheld or delayed. Except as specifically permitted herein, any assignment or sublease made without such consent shall be void. Notwithstanding anything to the contrary contained in this Section, Tenant shall have the right to assign or otherwise transfer this Lease or the Premises, or part of the Premises, without obtaining the prior consent of Landlord, (a) to the purchaser of all or substantially all of Tenant's assets, or to any entity into which the Tenant may be merged or consolidated (along with all or substantially all of its assets), (b) to a successor to Tenant's business or the business unit of Tenant if such succession takes place by a merger, consolidation, reorganization, stock sale, asset purchase, act of legislature or otherwise, and (c) any Affiliate (as defined below) so long as such Affiliate remains in such relationship to Tenant (the transferee in each subsections (a) through (c) hereinafter referred to as the "**Acquiring Company**"); provided that (i) the Acquiring Company continues to operate the business conducted in the Premises consistent with the Permitted Uses described in Exhibit A hereto, (ii) the Acquiring Company shall assume in writing, in form acceptable to Landlord, all of Tenant's obligations under this Lease, (iii) Tenant shall provide to Landlord such additional information regarding the Acquiring

Company as Landlord shall reasonably request; and (iv) Tenant shall pay Landlord's reasonable expenses actually incurred in connection therewith. An "**Affiliate**" shall mean any entity which is directly or indirectly through one or more intermediaries controls, is under common control with or is controlled by Tenant. For purposes of the preceding sentence, the term "control" (including the terms "controlled by" and "under common control with") means the possession, directly or indirectly, of the power to direct or cause the direction of the management and policies of such Person, whether through ownership of voting securities, by contract or otherwise. Unless Landlord shall have objected to an assignment or transfer by Tenant within ten (10) business days following Landlord's receipt of the information or items described in subsections (ii) and (iii) above, Landlord shall be deemed to have waived its right to object thereto. The transfers described in this paragraph are referred to hereinafter as "**Permitted Transfers**."

Whether or not the Landlord consents, or is required to consent, to any assignment or subletting, and except for Permitted Transfers, the Tenant named herein shall remain fully and primarily liable for the obligations of the tenant hereunder, including, without limitation, the obligation to pay Annual Fixed Rent and Additional Rent provided under this Lease. The Tenant shall give the Landlord notice of any proposed sublease or assignment, whether or not the Landlord's consent is required hereunder, specifying the provisions of the proposed subletting or assignment, including (i) the name and address of the proposed subtenant or assignee, (ii) a copy of the proposed subtenant's or assignee's most recent annual financial statement, and (iii) all of the terms and provisions upon which the proposed subletting or assignment is to be made and such other information concerning the proposed subletting or assignment is to be made and such other information concerning the proposed subtenant or assignee as the Tenant has obtained in connection with the proposed subletting or assignment. Only in the event that Landlord, in its sole and absolute discretion, has agreed in writing to release Tenant from all liability under this Lease upon the assignment of this Lease or sublease of all or any portion of the Premises, may Landlord require evidence to the reasonable satisfaction of Landlord that the net assets of the proposed assignee or subtenant are not less than the assets of Tenant at the time of the signing of the Lease.

The Tenant shall reimburse the Landlord promptly after receiving a written invoice thereof for reasonable legal and other expenses actually incurred by the Landlord in connection with any request by the Tenant for consent to any assignment or subletting. If this Lease is assigned, and Tenant is in default beyond any grace or cure period under the Lease, the Landlord may, upon prior written notice to Tenant, at any time and from time to time, collect rent and other charges from the assignee, sublessee or occupant and apply the net amount collected to the rent and other charges herein reserved, but no such assignment, subletting, occupancy or collection shall be deemed a waiver of the prohibitions contained in this Section 6.8 or the acceptance of the assignee, sublessee or occupant as a tenant, or a release of the Tenant from the further performance by the Tenant of covenants on the part of the Tenant herein contained.

The Tenant shall pay to the Landlord fifty percent (50%) of any amounts the Tenant actually receives from any subtenant or assignee as rent, additional rent or other forms of compensation or reimbursement for the sublease, assignment or occupancy of the Premises, after

deducting therefrom (i) the then due and payable proportionate monthly share of Annual Fixed Rent, Additional Rent and all other monies due to Landlord pursuant to this Lease (allocable in the case of a sublease to that portion of the Premises being subleased), and (ii) all reasonable and customary sublease expenses (including but not limited to bonafide brokerage fees, fit up expenses, free rent periods, marketing costs and attorney's fees) incurred by Tenant. The preceding sentence shall not apply to any Permitted Transfers. The consent by the Landlord to an assignment or subletting shall not be construed to relieve the Tenant from obtaining the express consent in writing of the Landlord to any further assignment or subletting.

Notwithstanding anything to the contrary contained herein, Tenant shall be permitted to allow the occupancy of the Premises or portions thereof by companies, firms or other entities who are members of a group with whom Tenant has a contractual or other relationship providing for cooperative or collaborative research or development work, who are or typically would be located by Tenant in one of its facilities (each, a "**Collaborative User**"), without the prior written consent of Landlord, provided, however, that Tenant shall provide Landlord with written notice of such situations if such occupancy involves more than ten (10) people for a period of greater than six (6) months. Tenant shall be fully responsible for ensuring that any such parties comply with the terms of the Lease and Tenant shall at all times remain primarily liable under the Lease."

10. Tenant's Address for Notices set forth on Exhibit A to the Lease shall be deleted in its entirety and replaced with the following:

"Genzyme, a Sanofi company
500 Kendall Street
Cambridge, MA 02142
ATTN: Tracey Quarles

With a copy to: Edwards Wildman Palmer LLP
111 Huntington Avenue
Boston MA 02199
ATTN: LeeAnn Baker

With a copy to: Sanofi
55 Corporate Drive
Bridgewater, NJ 08807
ATTN: General Counsel"

11. Exhibit G to the Lease shall be amended by deleting the term "biological safety cabinets" from inclusion in the Property of Landlord, and including such term in the "Property of Tenant". Notwithstanding the terms of Section 11.9 and per the terms of Section 4.2 of the Lease, Tenant shall remove the biological safety cabinets upon termination or expiration of the Lease.

12. The defined term "**Permitted Uses**" set forth in Exhibit A to the Lease shall be deleted in its entirety and replaced with the following:

"**Permitted Uses**: Research and development and general office use, together with ancillary manufacturing associated therewith."

13. To each of Tenant's and Landlord's actual knowledge, without inquiry, neither Landlord nor Tenant is in default under the Lease and there is no event or condition which, with the giving of notice or the passage of time, or both, would constitute a default under the Lease.

14. Landlord and Tenant represent and warrant that they have had no dealings with any broker or agent in connection with this Amendment other than Colliers International New England LLC and Zell Partnership, Inc. (collectively, the "**Broker**") and each party shall indemnify and hold harmless the other party from claims for any brokerage commission other than Broker. Broker shall be paid a brokerage fee by Landlord pursuant to the terms of a separate agreement.

15. This Amendment may be executed in any number of counterparts, each of which shall be deemed an original and all of which together shall constitute one and the same instrument.

16. The Lease, as amended hereby, is in full force and effect, and is ratified and confirmed, and there are no other amendments or modifications thereto.

17. This Amendment will be governed by and construed in accordance with the laws of the Commonwealth of Massachusetts.

IN WITNESS WHEREOF, the parties hereto have executed this Amendment under seal, as of the day, month and year first above written.

GENZYME CORPORATION,
a Massachusetts corporation

By: /s/ Marc Esteva
Name: Marc Esteva
Title: CFO Genzyme

UP 64 SIDNEY STREET, LLC
a Delaware limited liability company

By: FC HCN University Park, LLC,
a Delaware limited liability company
Its Sole Member

By: Forest City University Park, LLC,
a Delaware limited liability company
Its Managing Member

By: /s/ Michael Farley
Name: Michael Farley
Title: Vice President

FOURTH AMENDMENT TO LEASE

THIS FOURTH AMENDMENT TO LEASE (hereinafter referred to as the "Amendment") is dated as of this 8th day of March, 2016 by and between UP 64 SIDNEY STREET, LLC, a Delaware limited liability company ("Landlord") and VERICEL CORPORATION, a Michigan corporation ("Tenant"). Capitalized terms used herein and not otherwise defined shall have the meaning ascribed to such term in the Lease.

W I T N E S S E T H

WHEREAS, Landlord's predecessor in interest and Tenant's predecessor in interest entered into that certain Lease dated as of January 23, 2008, as amended by that certain First Amendment to Lease dated as of May 21, 2010, that certain Second Amendment to Lease dated as of April 24, 2012, and that certain Third Amendment to Lease dated as of September 30, 2013 (collectively, the "Lease"), with respect to certain premises located at 64 Sidney Street, Cambridge, Massachusetts;

WHEREAS, Tenant is also the tenant under a lease with Landlord dated as of November 30, 2005, as amended (collectively, the "2005 Lease"), with respect to certain other premises also located at 64 Sidney Street, Cambridge, Massachusetts; and

WHEREAS, Landlord and Tenant desire to amend the Lease to, among other changes, extend the term of the Lease, and other revisions all as set forth in this Amendment.

NOW, THEREFORE, in consideration of the premises and mutual covenants hereinafter contained and other valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Landlord and Tenant hereby agree to amend the Lease effective as of the date hereof as follows:

1. The term "Initial Term" on Exhibit A to the Lease shall be deleted in its entirety and replaced as follows:

"Initial Term: Approximately fourteen (14) years, commencing on March 1, 2008 and terminating on February 28, 2022."

2. The term "Annual Fixed Rent for the Term" on Exhibit A to the Lease shall be amended by adding the following thereto:

"Annual Fixed Rent for the Term: March 1, 2017 – February 28, 2018: $71.00 per rentable square foot, NNN

March 1, 2018– February 28, 2019: $73.13 per rentable square foot, NNN

March 1, 2019–

February 29, 2020: $75.32 per rentable square foot, NNN”

March 1, 2020 – February 28, 2021: $77.58 per rentable square foot, NNN

March 1, 2021 – February 28, 2022: $79.91 per rentable square foot, NNN

3. Section 2.2 of the Lease shall be amended to add to the end of such Section the following: “Tenant shall have the right, at no additional rental charge, to install mechanical equipment, heat exchangers, antennas, satellite dishes and the like on the roof, subject to the approval of the Landlord regarding location.”

4. Section 2.6 of the Lease shall be deleted in its entirety and replaced with the following:

“Section 2.6 – Extension Option. Provided that there has been no Event of Default which is uncured and continuing on the part of the Tenant and the Tenant is, as of the date of such exercise and as of the commencement date of the Extension Term (as such term is defined below), actually occupying sixty percent (60%) or more of the Premises for its own business purposes, the Tenant shall have the right to extend the Term hereof for one (1) period of five (5) years (the “Extension Term”).

(a) Such right to extend the Term shall be exercised by the giving of notice by Tenant to Landlord at least nine (9) months prior to the expiration of the then current Term. Upon the giving of such notice, this Lease and the Term hereof shall be extended for an additional term of five (5) years without the necessity for the execution of any additional documents except a document evidencing the Annual Fixed Rent for the Extension Term to be determined as set forth below. Time shall be of the essence with respect to the Tenant's giving notice to extend the Term. In no event shall the Term hereof be extended for more than five (5) years after the expiration of the Initial Term.

(b) The Extension Term shall be upon all the terms, conditions and provisions of this Lease except the Annual Fixed Rent during such five (5) year Extension Term shall be the then Extension Fair Rental Value of the Premises for such Extension Term to be determined under this Section 2.6.

(c) For purposes of the Extension Term described in this Section 2.6, the Extension Fair Rental Value of the Premises shall mean the then current fair market annual rent for leases of other space similarly improved, in the commercial markets that surround the MIT campus (East Cambridge/Kendall Square/Cambridgeport), taking into account the condition to which such premises have been improved (excluding Removable Alterations) and the economic terms and conditions specified in this Lease that will be applicable thereto, including the savings, if any, due to the absence or reduction of brokerage commissions. The Landlord and Tenant shall endeavor to agree upon the Extension Fair Rental Value of the Premises within thirty (30) days after the Tenant has exercised the option for the Extension Term. If the Extension Fair Rental Value of the Premises is not agreed upon by the Landlord and the Tenant within this time frame, each

of the Landlord and the Tenant shall retain a real estate professional with at least ten (10) years continuous experience in the business of appraising or marketing (including brokering) similar commercial real estate in the Cambridge, Massachusetts area who shall, within thirty (30) days of his or her selection, prepare a written report summarizing his or her conclusion as to the Extension Fair Rental Value. The Landlord and the Tenant shall simultaneously exchange such reports; provided, however, if either party has not obtained such a report within forty-five (45) days after the last day of the thirty (30) day period referred to above in this Section 2.6, then the determination set forth in the other party's report shall be final and binding upon the parties. If both parties receive reports within such time and the lower determination is within ten percent (10%) of the higher determination, then the average of these determinations shall be deemed to be the Extension Fair Rental Value for the Premises. If these determinations differ by more than ten percent (10%), then the Landlord and the Tenant shall mutually select a person with the qualifications stated above (the "Final Professional") to resolve the dispute as to the Extension Fair Rental Value for the Premises. If the Landlord and the Tenant cannot agree upon the designation of the Final Professional within ten (10) days of the exchange of the first valuation reports, either party may apply to the American Arbitration Association, the Greater Boston Real Estate Board, or any successor thereto, for the designation of a Final Professional. Within ten (10) days of the selection of the Final Professional, the Landlord and the Tenant shall each submit to the Final Professional a copy of their respective real estate professional's determination of the Extension Fair Rental Value for the Premises. The Final Professional shall then, within thirty (30) days of his or her selection, prepare a written report summarizing his or her conclusion as to the Extension Fair Rental Value (the "Final Professional's Valuation"). The Final Professional shall give notice of the Final Professional's Valuation to the Landlord and the Tenant and such decision shall be final and binding upon the Landlord and the Tenant. Each party shall pay the fees and expenses of its real estate professional and counsel, if any, in connection with any proceeding under this paragraph, and one-half of the fees and expenses of the Final Professional. In the event that the commencement of the Extension Term occurs prior to a final determination of the Extension Fair Rental Value therefor (the "Extension Rent Determination Date"), then the Tenant shall pay the Annual Fixed Rent at the then applicable Fixed Rental Rate (such amount being referred to as the "Interim Rent"). If the Annual Fixed Rent as finally determined for the Extension Term is determined to be greater than the Interim Rent, then the Tenant shall pay to the Landlord the amount of the underpayment for the period from the end of the initial term of this Lease until the Extension Rent Determination Date within thirty (30) days of the Extension Rent Determination Date. If the Annual Fixed Rent as finally determined for the Extension Term is determined to be less than the Interim Rent, then the Landlord shall credit the amount of such overpayment against the monthly installments of Annual Fixed Rent coming due after the Extension Rent Determination Date.

(d) Tenant's right to exercise the Extension Option set forth in this Section 2.6 shall be contingent on Tenant simultaneously exercising the Extension Option under Section 2.6 of the 2005 Lease.

5. Tenant is extending the Initial Term of this Lease with the understanding that Tenant is accepting the Premises in their current as-is condition. In the event Tenant makes

improvements to the Premises, Tenant shall hire its own contractors, subcontractors, engineers, and architects, subject to Landlord's reasonable approval, at its expense, to perform Tenant's alterations work. All work to be performed in the Premises shall be subject to Landlord approval which shall not be unreasonably withheld, and performed in accordance with established tenant construction rules and regulations and in accordance with the requirements in the Lease. There shall be no construction oversight fee paid to Landlord. However, Landlord shall be reimbursed for any reasonable and actual third-party, out-of-pocket expenses incurred by Landlord in the review and approval of Tenant's plans, specifications, improvements and construction, but in no event shall the reimbursement be greater than $5,000 in the aggregate. Landlord shall cooperate with Tenant and make commercially reasonable efforts to assist Tenant with obtaining the necessary governmental permits for the construction of Tenant's alterations.

6. The Work Letter attached to the Lease as Exhibit C shall be amended as follows:

(a) The first sentence of paragraph 1 shall be deleted and replaced with the following:

"Landlord shall provide to Tenant an allowance (the "Leasehold Improvements Allowance") equal to the product of (i) Thirty-Five Dollars ($35.00), times (ii) the rentable square footage of the Premises in the amount of 11,692 rsf (for a total of Four Hundred Nine Thousand Two Hundred Twenty and 00/100 Dollars ($409,220.00)), for application to the costs and expenses, more particularly set forth below, incurred by or on behalf of Tenant."

(b) The following shall be added to the end of paragraph 2:

"Notwithstanding the foregoing, the Leasehold Improvements Allowance may be used for Tenant's leasehold improvements, for construction, for architectural and engineering fees, for IT/Teldata and for project management services. The Leasehold Improvements Allowance shall be available for disbursement to the Tenant at any time following execution of the Fourth Amendment for any work that commences after execution of the Fourth Amendment."

7. Tenant's Address for Notices set forth on Exhibit A to the Lease shall be deleted in its entirety and replaced with the following:
8. "Vericel Corporation
64 Sidney Street
Cambridge, MA 02139
ATTN: Chief Operating Officer
Cc: Vice President, Legal Affairs"

9. Exhibit F to the Lease shall be deleted in its entirety and replaced with the new copy of Exhibit F attached hereto.

10. Exhibit G to the Lease shall be amended by replacing the term "autoclave" in the list of "Property of Landlord" with the term "built-in autoclave" and by adding the term "movable autoclave" in the "Property of Tenant."

11. Landlord and Tenant represent and warrant that they have had no dealings with any broker or agent in connection with this Amendment other than Colliers International New England LLC and Cushman & Wakefield (collectively, the "Broker") and each party shall indemnify and hold harmless the other party from claims for any brokerage commission. Broker shall be paid a brokerage fee by Landlord pursuant to the terms of a separate agreement.
12. This Amendment may be executed in any number of counterparts, each of which shall be deemed an original and all of which together shall constitute one and the same instrument.
13. The Lease, as amended hereby, is in full force and effect, and is ratified and confirmed, and there are no other amendments or modifications thereto.

14. This Amendment will be governed by and construed in accordance with the laws of the Commonwealth of Massachusetts.

IN WITNESS WHEREOF, the parties hereto have executed this Amendment under seal, as of the day, month and year first above written.

VERICEL CORPORATION,
a Michigan corporation

By: /s/ Dominick Colangelo
Name: Dominick Colangelo
Title: Chief Executive Officer

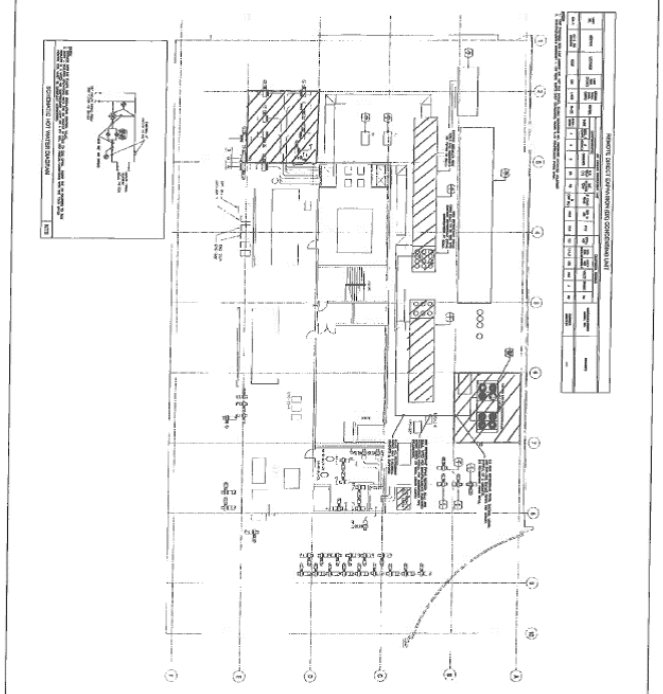
UP 64 SIDNEY STREET, LLC,
a Delaware limited liability company

By: FC HCN University Park, LLC,
a Delaware limited liability company
Its Sole Member

By: Forest City University Park, LLC,
a Delaware limited liability company
Its Managing Member

By: /s/ Michael Farley
Name: Michael Farley
Title: Vice President

EXHIBIT F



M-1

64 SIDNEY STREET

CAMBRIDGE, MASSACHUSETTS

ABM Building Solutions
1 A Gill Street
Woburn, MA. 01801
781-939-9108

THIRD AMENDMENT TO A LEASE AGREEMENT
BETWEEN DOMINO'S FARMS OFFICE PARK, L.L.C. (LANDLORD)
AND AASTROM BIOSCIENCES, INC. (TENANT)

THIS THIRD AMENDMENT TO A LEASE AGREEMENT is dated March 2, 2015 by and between DOMINO'S FARMS OFFICE PARK, L.L.C, a Michigan Limited Liability Company, (Landlord) and VERICEL CORPORATION, formerly known as AASTROM BIOSCIENCES, INC., a Michigan corporation (Tenant).

WHEREAS, Landlord entered into a Lease Agreement (the Lease) for a portion of the office building known as Domino's Farms Office Park located at 24 Frank Lloyd Wright Drive, Ann Arbor, Michigan 48106 with Aastrom Biosciences, Inc. (Tenant) on January 31, 2007; and

WHEREAS, Tenant desired to modify the Premises to which said Lease shall apply, and the Storage Rooms were consolidated and relocated by June 1, 2009; and

WHEREAS, Tenant desired to extend the lease term via the Second Amendment to the Lease Agreement dated May 1, 2013; and

WHEREAS, Tenant desires to relinquish a portion of the Premises back to the Landlord.

NOW, THEREFORE, Landlord and Tenant agreed to the following:

PREMISES: Tenant will relinquish a portion of the Premises located on the West side of the suite at Lobby K – Level 2. (Reference the attached drawing.) The Tenant shall continue to occupy the remainder of the existing suite located at Lobby K, Level 2 of the building (Primary Premises), as well as a storage area and an equipment room located at Lobby L, Level 1. The rentable square footage of the Level 2 suite will now be 22,511, based on a usable size of 20,099 with a 12% common area factor.

CONSTRUCTION: To comply with building codes and the provision of tenant separation, a demising wall must be constructed to achieve the requested downsizing. Tenant will assume responsibility for the cost of said wall, not to exceed $77,000. (Reference the attached budget.) The Landlord will serve as the construction manager for this work, and will obtain the all necessary permits and inspections for same.

SCHEDULE: Upon full execution of this Lease Amendment, final plans for construction will commence. Tenant shall have responsibility for removal of all furniture, equipment and personal property to facilitate the construction commencement. The actual construction work is expected to be completed in approximately six weeks.

PAYMENT: The Landlord will invoice the Tenant for the construction project once the work has been completed; a Certificate of Occupancy has been received from the Ann Arbor Townships Building Inspector, and all relevant construction invoices have been received by the Landlord. Payment from Tenant shall be due within 15 days of Tenant's receipt of final invoice after project close-out.

RENT REDUCTION: Provide the Tenant removes all furniture and personal property from space to be vacated by early March 2015, the construction will take place, and the rent reduction will commence no later than May 1, 2015. The monthly rent will be pro-rated as necessary. The rent for the Primary Premises will be reduced to $53,369.83 per month, which is a reduction of $24,175.39 per month and Tenant shall remain on the 11-month annual payment schedule and shall be subject to annual increases on May 1, 2015 and each subsequent year as prescribed in the Lease and subsequent amendments. Rent for the storage and equipment areas are not affected by this amendment, and shall adhere to the rates as prescribed in the Lease and subsequent amendments.

CONFIDENTIALITY AGREEMENT: Landlord, Tenant and Swisher Commercial shall maintain the confidentiality of, and not disclose to third persons or parties, any of the details relating to this Lease Amendment, other than to Tenants board of directors, managers, professional advisors, auditors, bankers and State regulators, as necessary.

All other terms and conditions of the Lease shall remain in full force and effect.

IN WITNESS WHEREOF, the parties have hereunto executed this THIRD AMENDMENT TO LEASE AGREEMENT effective as of the day and year first above written.

TENANT:

VERICEL CORPORATION
(a Michigan company)

By: /s/ Gerard Michel
Gerard Michel
Chief Financial Officer

LANDLORD:

DOMINO'S FARMS OFFICE PARK, L.L.C.
(a Michigan limited liability company)

By: /s/ Paul R. Roney
Paul R. Roney
Manager

Exhibit 21.1

SUBSIDIARIES OF REGISTRANT

Aastrom Biosciences GmbH, Germany

Marrow Donation, LLC

Vericel Denmark ApS

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statement on Form S-3 (Nos. 333-205339, 333-205336, 333-193861, and 333-188186) and Form S-8 (Nos. 333-205338, 333-187346, 333-174758, 333-163832, 333-140624, 333-121006, 333-115505, 333-81340, 333-51556, 333-38886 and 333-25021) of Vericel Corporation of our report dated March 14, 2016 relating to the consolidated financial statements and the effectiveness of internal control over financial reporting, which appears in this Form 10-K.

/s/ PricewaterhouseCoopers LLP

Detroit, Michigan

March 14, 2016

EXHIBIT 31.1

CERTIFICATION

I, Dominick C. Colangelo, certify that:

1. I have reviewed this Annual Report on Form 10-K of Vericel Corporation for the year ended December 31, 2015;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ DOMINICK C. COLANGELO

Dominick C. Colangelo

President and Chief Executive Officer

(Principal Executive Officer)

Date: March 14, 2016

EXHIBIT 31.2

CERTIFICATION

I, Gerard J. Michel, certify that:

1. I have reviewed this Annual Report on Form 10-K of Vericel Corporation for the year ended December 31, 2015;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ GERARD J. MICHEL

Gerard J. Michel

Chief Financial Officer and Vice President

of Corporate Development

(Principal Financial and Accounting Officer)

Date: March 14, 2016

EXHIBIT 32.1

18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Vericel Corporation (Company) on Form 10-K for the year ended December 31, 2015, as filed with the Securities and Exchange Commission on the date hereof (Report), each of the undersigned officers of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (Section 906), the following:

(1) The Report fully complies with the requirements of section 13(a) and 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ DOMINICK C. COLANGELO

Dominick C. Colangelo
President and Chief Executive Officer
(Principal Executive Officer)

/s/ GERARD J. MICHEL

Gerard J. Michel
Chief Financial Officer and Vice President
of Corporate Development
(Principal Financial and Accounting Officer)

Date: March 14, 2016

A signed original of this written statement required by Section 906 has been provided to Vericel Corporation and will be retained by Vericel Corporation and furnished to the Securities and Exchange Commission or its staff upon request.