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, 2012

OR

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

For the transition period from_____ to _____

Commission file number 1-12830

BioTime, Inc.

(Exact name of registrant as specified in its charter)

California	**94-3127919**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

1301 Harbor Bay Parkway, Suite 100
Alameda, California 94502
(Address of principal executive offices) (Zip Code)

Registrant's telephone number, including area code **(510) 521-3390**

Securities registered pursuant to Section 12(b) of the Act
Title of class **Common Shares, no par value**

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 if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) 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 **o**

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

Large accelerated filer **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 approximate aggregate market value of voting common shares held by non-affiliates computed by reference to the price at which common shares were last sold as of June 30, 2012 was $121,654,342. Shares held by each executive officer and director and by each person who beneficially owns more than 5% of the outstanding common shares have been excluded in that such persons may under certain circumstances be deemed to be affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

The number of common shares outstanding as of March 14, 2013 was 54,906,793.

Documents Incorporated by Reference
Portions of Proxy Statement for 2012 Annual Meeting of Shareholders are incorporated by reference in Part III

BioTime, Inc.

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PART I

Statements made in this Form 10-K that are not historical facts may constitute forward-looking statements that are subject to risks and uncertainties that could cause actual results to differ materially from those discussed. Words such as "expects," "may," "will," "anticipates," "intends," "plans," "believes," "seeks," "estimates," and similar expressions identify forward-looking statements. See Note 1 to Financial Statements.

References to "we" means BioTime, Inc. and its subsidiaries unless the context otherwise indicates.

The description or discussion, in this Form 10-K, of any contract or agreement is a summary only and is qualified in all respects by reference to the full text of the applicable contract or agreement.

Item 1. Business

Overview

We are a biotechnology company focused on the emerging field of regenerative medicine. Our core technologies center on stem cells capable of becoming all of the cell types in the human body, a property called *pluripotency*. Products made from these "pluripotent" stem cells are being developed by us and our subsidiaries, each of which concentrates on different medical specialties, including: neuroscience, oncology, orthopedics, and blood and vascular diseases. Our commercial strategy is heavily focused on near-term commercial opportunities including our current line of research products such as *PureStem*™ cell lines (which we previously called *ACTCellerate*™ cell line) and associated *ESpan*™ culture media, *HyStem*® hydrogels, human embryonic stem cell lines, and royalties from *Hextend*®. Potential near term therapeutic and diagnostic product opportunities include *Renevia*™ (formerly known as *HyStem*®*-Rx*) as a cell delivery device expected to enter clinical trials in Europe in 2013, and the launch of *PanC-Dx*™ as a novel blood-based cancer screen, expected by 2014 in Europe. Our long-term strategic focus is to provide regenerative therapies for age-related degenerative diseases.

"Regenerative medicine" refers to an emerging field of therapeutic product development that may allow all human cell and tissue types to be manufactured on an industrial scale. This new technology is made possible by the isolation of human embryonic stem ("hES") cells, and by the development of "induced pluripotent stem ("iPS") cells" which are created from regular cells of the human body using technology that allows adult cells to be "reprogrammed" into cells with pluripotency like young hES-like cells. These pluripotent hES and iPS cells have the unique property of being able to branch out into each and every kind of cell in the human body, including the cell types that make up the brain, the blood, the heart, the lungs, the liver, and other tissues. Unlike adult-derived stem cells that have limited potential to become different cell types, pluripotent stem cells may have vast potential to supply an array of new regenerative therapeutic products, especially those targeting the large and growing markets associated with age-related degenerative disease. Unlike pharmaceuticals that require a molecular target, therapeutic strategies in regenerative medicine are generally aimed at regenerating affected cells and tissues, and therefore may have broader applicability. Regenerative medicine represents a revolution in the field of biotechnology with the promise of providing therapies for diseases previously considered incurable.

Our commercial efforts in regenerative medicine include the development and sale of products designed for research applications in the near term as well as products designed for diagnostic and therapeutic applications in the medium and long term. We offer advanced human stem cell products and technology that can be used by researchers at universities and at companies in the bioscience and biopharmaceutical industries. We have developed research and clinical grade hES cell lines that we market for both basic research and therapeutic product development. Our subsidiary, ES Cell International Pte. Ltd ("ESI"), has developed six hES cell lines that are among the best characterized and documented cell lines available today. Developed using current Good Manufacturing Practices ("cGMP") that facilitate transition into the clinic, these hES cell lines are extensively characterized and five of the six cell lines currently have documented and publicly-available genomic sequences. The ESI hES cell lines are now included in the Stem Cell Registry of the National Institutes of Health ("NIH"), making them eligible for use in federally funded research, and all are available for purchase through *http://bioreagents.lifemapsc.com*. We also market human embryonic progenitor cell ("hEPCs"), which are called *PureStem*™ cell lines and were developed using *ACTCellerate*™ technology. These hEPCs are purified lineages of cells that are intermediate in the developmental process between embryonic stem cells and fully differentiated cells. We expect that hEPCs will simplify the scalable manufacture of highly purified and identified cell types and will possess the ability to become a wide array of cell types with potential applications in research, drug discovery, and human regenerative stem cell therapies. The *PureStem*™ cell lines are also available for purchase through *http://bioreagents.lifemapsc.com*.

Research products can be marketed without regulatory or other governmental approval, and thus offer relatively near-term business opportunities, especially when compared to therapeutic products. The medical devices and diagnostics that we and our subsidiaries are developing will require regulatory approval for marketing, but the clinical trial and approval process for medical devices is often faster and less expensive than the process for the approval of new drugs and biological therapeutics. Our current and near-term product opportunities, combined with expected long-term revenues from the potentially very large revenue that could be derived from cell-based therapeutic products under development at our subsidiaries, provide us with a balanced commercial strategy. The value of this balance is apparent in the commercial field of regenerative medicine as competitors whose sole focus is on long-term therapeutic products have found it challenging to raise the requisite capital to fund clinical development.

Our *HyStem*® hydrogel product line is one of the components in our near-term revenue strategy. *HyStem*® is a patented biomaterial that mimics the human extracellular matrix, which is the network of molecules surrounding cells in organs and tissues that is essential to cellular function. Many tissue engineering and regenerative cell-based therapies will require the delivery of therapeutic cells in a matrix or scaffold to sustain cell survival after transplantation and to maintain proper cellular function. *HyStem*® is a unique hydrogel that has been shown to support cellular attachment and proliferation *in vivo.*

Renevia™ (formerly known as *HyStem*®*-Rx*) is a clinical grade formulation of *HyStem-C*®, a biocompatible, implantable hyaluronan and collagen-based matrix for cell delivery in human clinical applications. As an injectable product, *Renevia*™ may address an immediate need in cosmetic and reconstructive surgeries and other procedures by improving the process of transplanting adipose derived cells, mesenchymal stem cells, or other adult stem cells. We will need to obtain approval by the U.S. Food and Drug Administration ("FDA") and comparable regulatory agencies in foreign countries in order to market *Renevia*™ as a medical device. We expect to initiate clinical trials in the European Union during the first half of 2013 for CE marking.

Other *HyStem*® products are currently being used by researchers at a number of leading medical schools in pre-clinical studies of stem cell therapies to facilitate wound healing, for the treatment of ischemic stroke, brain cancer, vocal fold scarring, and for myocardial infarct repair. Our *HyStem*® hydrogels may have other applications when combined with the diverse and scalable cell types our scientists have isolated from hES cells.

Our subsidiary, OncoCyte Corporation, is developing *PanC-Dx*™, a novel non-invasive blood-based cancer screening test designed to detect the presence of various human cancers, including cancers of the breast, lung, bladder, uterus, stomach, and colon, during routine check -ups. We intend to initially seek regulatory approval to market *PanC-Dx*™ in Europe as a screen for breast cancer before seeking regulatory approvals required to market the product in the U.S. and other countries.

Our subsidiary, LifeMap Sciences markets *GeneCards*®, the leading human gene database, as part of an integrated database suite that includes *LifeMap Discovery*™, the database of embryonic development, stem cell research and regenerative medicine; and *MalaCards*, the human disease database. LifeMap Sciences also markets *PanDaTox*, a database that can be used to identify genes and intergenic regions that are unclonable in E. coli, to aid in the discovery of new antibiotics and biotechnologically beneficial functional genes. LifeMap Sciences will utilize its databases as part of its online marketing strategy for our research products to reach life sciences researchers at biotech and pharmaceutical companies and at academic institutions and research hospitals worldwide.

LifeMap Sciences is also the internet sales and marketing arm of our research products for sale through the website *http://bioreagents.lifemapsc.com*. We now offer 12 *PureStem*™ hEPC and five hES cell lines developed under cGMP by our subsidiary ESI for sale, and hES cell lines carrying inherited genetic diseases. The hES cell lines developed by ESI are included in the NIH Stem Cell Registry, making them eligible for use in federally funded research, and five of the six cell lines currently have documented and publicly-available genomic sequences. We anticipate adding additional cell lines and related *ESpan*™ growth media and differentiation kits over time.

During January 2013, we entered into an Asset Contribution Agreement with our subsidiary BioTime Acquisition Corporation ("BAC") and Geron Corporation pursuant to which BAC will acquire a significant portfolio of patents and patent applications, cell lines, and hES technology and know-how related to potential therapeutic products in various stages of development. Two of the products under development have already been used in early stage clinical trials. The acquisition of the Geron stem cell assets is expected to occur no later than September 30, 2013. The completion of the transaction is subject to the satisfaction of certain conditions. See "BioTime Acquisition Corporation and the Asset Contribution Agreement."

Plasma Volume Expander Products

We have developed and licensed manufacturing and marketing rights to *Hextend*®, a physiologically balanced blood plasma volume expander used for the treatment of hypovolemia in surgery, emergency trauma treatment, and other applications. Hypovolemia is a condition caused by low blood volume, often from blood loss during surgery or from injury. *Hextend*® maintains circulatory system fluid volume and blood pressure and helps sustain vital organs during surgery or when a patient has sustained substantial blood loss due to an injury. *Hextend*® is the only blood plasma volume expander that contains lactate, multiple electrolytes, glucose, and a medically approved form of starch called hetastarch. *Hextend*® is sterile, so its use avoids the risk of infection. Health insurance reimbursements and HMO coverage now include the cost of Hextend used in surgical procedures.

Hextend® is manufactured and distributed in the United States by Hospira, Inc., and in South Korea by CJ CheilJedang Corp. ("CJ"), under license from us.

Key Accomplishments in 2012

In January 2012, we licensed key technology obtained in an exclusive license from The Wistar Institute in Philadelphia, PA for technology related to a gene designated as *SP100*. Wistar Institute researchers have demonstrated pivotal roles for this gene in both cancer and stem cell biology. Scientists at BioTime's subsidiaries OncoCyte Corporation and ReCyte Therapeutics, Inc. plan to apply this technology in the development of innovative medical products for cancer and vascular diseases. In conjunction with the license agreement, BioTime has agreed to fund research at The Wistar Institute to advance the technology, and BioTime will receive certain rights to negotiate additional licenses for any technologies invented as a result of the research.

In May 2012, through our subsidiary, LifeMap Sciences, we acquired XenneX Corporation. The acquisition integrated *GeneCards*® and associated databases in a centralized resource. LifeMap now holds the exclusive, worldwide licenses to market *GeneCards*® and *PanDaTox*. *GeneCards*® is a searchable, integrated, database of human genes that provides concise genomic, transcriptomic, genetic, proteomic, functional and disease related information, on all known and predicted human genes. *PanDaTox* is a recently developed, searchable, database that can be used to identify genes and intergenic regions that are unclonable in E. coli, to aid in the discovery of new antibiotics and biotechnologically beneficial functional genes, and to improve the efficiency of metabolic engineering. Through this acquisition we began recognizing license revenue based upon subscription and advertising fees from customers worldwide including biotechnology, pharmaceutical and other life sciences companies, as well as organizations dealing with biotechnology intellectual property.

Through the acquisition, XenneX stockholders received 1,362,589 shares of LifeMap Sciences common stock, which represents approximately 13% of the LifeMap Sciences common stock now outstanding. XenneX shareholders also received 448,429 BioTime common shares as part of the transaction.

In August, 2012 our subsidiary OncoCyte announced the publication of a scientific report on the gene *COL10A1* and its potential as a marker for numerous types of human cancers. The paper described the microarray-based approach used to identify *COL10A1* as a pan-cancer biomarker with significantly elevated expression in diverse malignant tumor types including cancers of the breast, stomach, colon, lung, bladder, pancreas, and ovaries. In addition, the protein was shown to be specifically localized within tumor vasculature. Combined, these findings will be an important basis for the development and application of new diagnostic and therapeutic strategies, including the measurement of Collagen Type X in the blood as a screen for the presence of cancer, the use of antibodies that recognize and bind to the protein to visualize and locate tumors in the body, and the targeted delivery of tumor-destroying agents.

In November, 2012, we made an additional investment in our subsidiary Cell Cure Neurosciences Ltd. ("Cell Cure Neurosciences") through which we agreed to purchase 87,456 Cell Cure Neurosciences ordinary shares in exchange for 906,735 BioTime common shares. The transaction closed in January 2013. As a result of the share purchase, BioTime owns, directly and through its wholly owned subsidiary ESI, approximately 62.6% of the outstanding ordinary shares of Cell Cure Neurosciences.

In September, 2012 we formed a new subsidiary, BAC, to acquire assets in the stem cell field for use in developing and commercializing products for regenerative medicine. In November 2012 we and BAC signed a letter of intent with Geron which contained terms of a potential transaction through which Geron would contribute to BAC its intellectual property and other assets related to Geron's discontinued human embryonic stem cell programs and BioTime would contribute to BAC cash, BioTime common shares, warrants to purchase common shares of BioTime at a pre-specified price, rights to use certain human embryonic stem cell lines, and minority stakes in two of BioTime's subsidiaries. In January 2013, we entered into a definitive agreement through an Asset Contribution Agreement with BAC and Geron pursuant to which Geron has agreed to contribute certain assets, including intellectual property and proprietary technology, including certain patents and know-how related to human embryonic stem cells; certain biological materials and reagents; certain laboratory equipment; certain contracts; Geron's Phase I clinical trial of oligodendrocyte progenitor cells in patients with acute spinal cord injury, and Geron's autologous cellular immunotherapy program, including the Phase I/II clinical trial of autologous immunotherapy in patients with acute myelogenous leukemia; and certain regulatory filings, in exchange for shares of BAC common stock, and we have agreed to contribute 8,902,077 common shares; warrants to subscribe for and purchase 8,000,000 additional common shares; $5,000,000 in cash; 10% of the issued and outstanding shares of common stock of our subsidiary OrthoCyte Corporation; 6% of the issued and outstanding ordinary shares of our subsidiary Cell Cure Neurosciences; and a quantity of certain human hES cell lines produced under cGMP, and a non-exclusive, world-wide, royalty-free license to use those hES cell lines and certain patents pertaining to stem cell differentiation technology, in exchange for BAC common stock and warrants to purchase BAC common stock. We expect the transaction to close in the third quarter of 2013.

Related to the proposed acquisition of Geron's stem cell assets by BAC, we and BAC entered into agreements for a $10 million investment from a private investor to provide financing for the proposed acquisition of the Geron stem cell assets. Under the agreed terms, the investor will invest $5 million in BioTime in two tranches by purchasing a total of 1.35 million BioTime common shares at a purchase price of approximately $3.70 per share, and warrants to purchase approximately 650,000 additional BioTime common shares with an exercise price of $5 per share and a three year term. The initial investment tranche of $2 million was made in January, 2013. The second tranche of $3 million was originally intended to close later this year concurrent with the closing of the Asset Contribution Agreement. However, on March 7, 2013 we executed an amendment with the investor to accelerate the closing date to April 10, 2013. In addition, the investor will contribute $5 million in cash to BAC in exchange for shares of BAC common stock that, upon issuance, will represent approximately 7% of the BAC common stock then issued and outstanding, plus warrants to purchase approximately 350,000 additional shares of BAC common stock at an exercise price of $5 per share, with a three year term.

Additional Information

HyStem®, *Hextend*® and *PentaLyte*® are registered trademarks of BioTime, Inc., and *Renevia*™, *PureStem*™, *ESpan*™, and *ESpy*® are trademarks of BioTime, Inc. *ACTCellerate*™ *is a trademark licensed to us by Advanced Cell Technology, Inc.* *ReCyte*™ is a trademark of ReCyte Therapeutics, Inc. *PanC-Dx*™ is a trademark of OncoCyte Corporation. *GeneCards*® is a registered trademark of Yeda Research and Development Co. Ltd.

We were incorporated in 1990 in the state of California. Our principal executive offices are located at 1301 Harbor Bay Parkway, Alameda, California 94502. Our telephone number is (510) 521-3390.

Business Strategy

One of our goals is to develop cell-based regenerative therapies for age-related degenerative disease. The degenerative diseases of aging meet several criteria that make them an attractive business opportunity. First, the elderly comprise a large and growing segment of both the U.S. and the world population. Second, chronic diseases account for nearly 75% of health care costs. Third, because many age-related diseases appear to be caused by the inherent limited capacity of aged human cells to regenerate damaged tissues in the body, our cell replacement technologies may eliminate the high costs associated with years of palliative care addressing these large markets.

Our effort in regenerative medicine also includes research on more than 200 purified, scalable, and novel human embryonic progenitor cell types produced from hES and iPS cells. This research has included extensive gene expression studies of the unique properties of the cells, as well as conditions that cause the cells to differentiate into many of the cell types in the body. We have filed patent applications on the compositions of these cells, the media in which they can be expanded, and a variety of uses of the cells, including drug discovery and cell replacement therapies. This novel manufacturing technology may provide us with a competitive advantage in producing highly purified, identified, and scalable cell types for potential use in therapy.

We have organized several subsidiaries to undertake our cell replacement therapeutic programs, diagnostic product programs, and our research product programs. We will partly or wholly fund these subsidiaries, recruit their management teams, assist them in acquiring technology, and provide general guidance for building the subsidiary companies. We may license patents and technology to the subsidiaries that we do not wholly own under agreements that will entitle us to receive royalty payments from the commercialization of products or technology developed by the subsidiaries.

In September 2012 we formed a new subsidiary, BAC, to acquire assets in the stem cell field for use in developing and commercializing products for regenerative medicine. During January 2013, BAC entered into the Asset Contribution Agreement to acquire the assets that Geron had used in its stem cell research and development programs. By acquiring Geron's stem cell assets, BAC will have the use of cell lines and other biological materials, patents, and technology developed by Geron over 12 years of work focused in the following complementary lines of research:

- the establishment of cell banks of undifferentiated hES cells produced under current good manufacturing procedures "cGMP" and suitable for human therapeutic use;
- the development of scalable differentiation methods which convert, at low cost, undifferentiated hES cells into functional cells suitable for human therapeutic cells that can be stored and distributed in the frozen state for "off-the-shelf" use;
- the development of regulatory paradigms to satisfy both U.S. and European regulatory authority requirements to begin human clinical testing of products made from hES cells; and
- the continuous filing and prosecution of patents covering inventions to protect commercialization rights, as well as consummating in-licenses to enable freedom to operate in a variety of fields.

The following table shows our subsidiaries, their respective principal fields of business, our percentage ownership as at December 31, 2012, and the country where their principal business is located:

Subsidiary	Field of Business	BioTime Ownership	Country
ES Cell International Pte. Ltd.	Stem cell products for research, including clinical grade cell lines produced under cGMP	100%	Singapore
OncoCyte Corporation	Diagnosis and treatment of cancer	75.3%	USA
OrthoCyte Corporation	Orthopedic diseases, including osteoarthritis	100%	USA
Cell Cure Neurosciences, Ltd.	Age-related macular degeneration Multiple sclerosis Parkinson's disease	53.6%(1)	Israel
ReCyte Therapeutics, Inc. (formerly Embryome Sciences, Inc.)	Vascular disorders, including cardiovascular-related diseases, vascular injuries, and acquired lymphedema Endothelial progenitor cells for research and drug testing; iPS cell banking	95.15%	USA
BioTime Asia, Limited	Ophthalmologic, skin, musculo-skeletal system, and hematologic diseases for Asian markets. Stem cell products for research	81%	Hong Kong
LifeMap Sciences, Inc.	Genetic, disease, and stem cell databases; sale of stem cell products for research	73.2%	USA
LifeMap Sciences, Ltd.	Stem cell database	(2)	Israel
BioTime Acquisition Corporation	Research, development and commercialization of human therapeutic products from stem cells	96.7%(3)	USA

(1) In January 2013 Cell Cure Neurosciences issued additional ordinary shares to BioTime in exchange for BioTime common shares which increased BioTime's ownership, directly and through ESI, to approximately 62.6%. See Note 23 to the Consolidated Financial Statements.
(2) LifeMap Sciences, Ltd. is a wholly-owned subsidiary of LifeMap Sciences, Inc.
(3) We expect our percentage ownership will be reduced to approximately 71.6% after BAC issues common stock to us and Geron pursuant to the Asset Contribution Agreement and sells common stock and warrants to a private investor for cash in a related transaction

The joint ownership of subsidiaries with other investors will allow us to fund the expensive development costs of therapeutics in a manner that spreads the costs and risk and reduces our need to obtain more equity financing of our own that could be dilutive to our shareholders. In some cases, the co-investors in our subsidiaries may include other participants in the pharmaceutical or biotechnology industry and their affiliates. An example of this would be our investment in Cell Cure Neurosciences, which was made in concert with investments from Teva Pharmaceutical Industries, Ltd. and HBL-Hadasit Bio-Holdings, Ltd.

Another tenet of our business strategy is the development and sale of advanced human stem cell products and technologies that can be used by researchers at universities and other institutions, at companies in the bioscience and biopharmaceutical industries, and at other companies that provide research products to companies in those industries. By providing products and technologies that will be used by researchers and drug developers at larger institutions and corporations, we believe that we will be able to commercialize products more quickly and inexpensively, and realize greater revenues than would be possible with the development of therapeutic products alone.

We have made the filing and prosecution of patent applications an integral part of our business strategy in order to protect our investment in our products and that we and our subsidiaries have developed or licensed from others. See the “Licensed Stem Cell Technology and Stem Cell Product Development Agreements” and “Patents and Trade Secrets” sections of this report.

Stem Cells and Related Products for Regenerative Medicine Research

Human Embryonic Stem Cell Lines for Research Use

Because hES and iPS cells have the ability to transform into any cell type in the human body, they may provide a means of producing a host of new products of interest to medical researchers. It is likely that hES and iPS cells could be used to develop new cell lines designed to rebuild cell and tissue function otherwise lost due to degenerative disease or injury.

In 2007, ESI announced the world's first hES cell lines derived according to cGMP principles, i.e. the detailed procedures for all aspects of production that could potentially exert an impact on the safety and quality of a product. The FDA enforces cGMP regulations with respect to the manufacturing of human therapeutics for use in the U.S., and virtually every country across the globe maintains some analogous standards for quality control in the manufacture of therapeutic products for humans.

ESI and scientists from Sydney IVF, Australia's leading center for infertility and *in vitro* fertilization ("IVF") treatment, also published a scientific report, “The Generation of Six Clinical-Grade Human Embryonic Stem Cell Lines” (Cell Stem Cell 1: 490-494). The paper outlined the procedures used to document the production of clinical-grade hES cell lines derived on human feeder cells obtained from an FDA approved source, produced in a licensed cGMP facility, with donor consent and medical screening of donors. Combined with our *ACTCellerate*™ technology that allows for the derivation of a wide array of hEPCs with high levels of purity and scalability, and site-specific homeobox gene expression, we believe that ESI's clinical-grade master cell banks may be used to generate clonal clinical-grade embryonic progenitor cells - of great interest to the biopharmaceutical industry. We expect that the acquisition of ESI's clinical-grade hES cell bank will save years of development time and thereby accelerate the development of clinical-grade progenitor cells for potential use as research and therapeutic products.

ESI’s six cGMP hES cell lines have been approved by the NIH for inclusion in the Human Embryonic Stem Cell Registry, which renders those cell lines eligible for use in federally funded research.

The ESI hES cell lines are available for purchase through *http://bioreagents.lifemapsc.com*. We also market human Embryonic Progenitor Cells (hEPCs), under the *PureStem*™ brand, which were developed using *ACTCellerate*™ technology. These hEPCs are expected to possess the ability to become a wide array of cell types with potential applications in research, drug discovery, and human regenerative stem cell therapies. Our hEPCs are also available for sale through *http://bioreagents.lifemapsc.com.*

During November and December 2010, we signed agreements with the CIRM and the University of California system to distribute five research-grade and GMP compliant ESI hES cell lines to California-based researchers. We believe that making the GMP-grade cell lines available to researchers may streamline the translation of basic science into therapies. We provided research-grade cell lines free of charge to CIRM-funded and California-based researchers until April 30, 2011. The research-grade cells are now available to researchers through LifeMap Sciences, Inc. at *http://bioreagents.lifemapsc.com*.

We have derived the complete genome sequence of five of the ESI hES cell lines to facilitate the development of products derived from these cell lines. We have made these GMP-grade cell lines, along with certain documentation and complete genomic DNA sequence information, available for sale. We will charge a price for the GMP-grade cell lines that covers our production and delivery costs. Although no royalties will be payable to us by researchers who acquire the cell lines for research use, researchers who desire to use the GMP cell lines for therapeutic or diagnostic products, or for any other commercial purposes, may do so only after signing commercialization agreements acceptable to us. Commercialization agreements under this program will entitle us to receive royalties on net sales not to exceed 2% of net sales, reducible to 1.5% if the researcher must pay any other royalties in connection with the commercialization of their product.

Human Embryonic Progenitor Cells

Through our subsidiary ReCyte Therapeutics we acquired a license from Advanced Cell Technology, Inc. ("ACT") to use *ACTCellerate*™ technology, and the rights to market more than 200 novel human cell types made using that process. This technology allows the rapid isolation of novel, highly purified hEPCs, which are cells that are intermediate in the developmental process between embryonic stem cells and fully differentiated cells. These cell lines are produced by the exogenous expression of specific transcription factors that regulate the differentiation of diverse cell types from hES or iPS cells. Not only are hEPCs expected to possess the ability to become a wide array of cell types with potential applications in research, drug discovery, and human regenerative stem cell therapies, they are relatively easy to manufacture on a large scale and in a purified state, which may make it more advantageous to work with them than directly with hES or iPS cells.

- *Commercial Distribution of PureStem™ hEPC*

We now offer 12 *PureStem*™ hEPC for purchase through our subsidiary LifeMap Sciences at *http://bioreagents.lifemapsc.com*, and we anticipate adding additional PureStem™ hEPC and related *ESpan*™ growth media and differentiation kits over time. LifeMap Sciences is also undertaking new efforts to provide online biomedical database services through its *LifeMap Discovery*™ database to increase awareness of molecular markers and diverse cell types comprising our *PureStem*™ hEPC. Through BioTime's current inventory of over 200 hEPC, we plan to continually add additional *PureStem*™ cells to our product offering.

- *CIRM Grant TR-1276*

On April 29, 2009, CIRM awarded us a $4,721,706 grant for a stem cell research project related to our *ACTCellerate*™ technology. Our grant is titled "Addressing the Cell Purity and Identity Bottleneck through Generation and Expansion of Clonal Human Embryonic Progenitor Cells." Research under this grant was completed on August 31, 2012.

Our CIRM-funded research addresses the need for industrial scale production of purified therapeutic cells. Unlike a drug that may persist in the body for a matter of hours or days, a cell can persist in the body for an entire lifetime, and therefore purity and precise identification of desired therapeutic cells are essential for developing cell-based therapies. Current methodologies for preparing cell therapeutics from hES or iPS cells typically involve complex and difficult derivation processes that result in heterogeneous populations of cells, only a portion of which is the intended therapeutic agent. The pluripotency that allows hES cells to differentiate into all types of cells also poses the problem of assuring that all hES cells in a cultured batch differentiate into the desired type of body cell. Contamination of hES or iPS derived cells with the wrong cells could lead to diseases or disorders resulting from normal but inappropriate tissue growth or tumor formation. However, because our hEPCs are clonal, meaning that they are derived from a single cell, they have the potential to grow as a highly purified and identified cell line. For this reason, this CIRM-funded research is of direct benefit to us in manufacturing cell types for the research markets and potential therapeutic product candidates.

The overall CIRM funded project provided well-characterized hEPCs that are precursors of therapeutic cells such as kidney, blood vessel, muscle, cartilage, and skin cells, among other cell types. The CIRM funding for this research project ended on August 31, 2012.

We received the quarterly payments from CIRM, totaling $790,192, during the second half of 2009, quarterly payments, totaling $1,575,523, during the year ended December 31, 2010, payments, totaling $1,570,663, during the year ended December 31, 2011, and totaling $392,665 during the year ended December 31, 2012. The final quarterly installment of $392,664 outstanding as of December 31, 2012 was collected in February 2013.

hES Cells Carrying Genetic Diseases

We plan to add to our product line novel muscle progenitor cells produced from five hES cell lines carrying genes for Duchenne muscular dystrophy, Emery-Dreifuss muscular dystrophy, spinal muscular atrophy Type I, facioscapulohumeral muscular dystrophy 1A, and Becker muscular dystrophy. We have a contract to obtain the diseased hES cell lines from Reproductive Genetics Institute ("RGI"). Our goal is to produce highly purified and characterized progenitor cell types useful to the research community for applications such as drug screening for the development of therapies for these devastating diseases.

ESpan™ Cell Growth Media

Cell lines derived from hES and iPS cells that display novel cell signaling pathways (which are cell signals that regulate cell proliferation) may be used in screening assays for the discovery of new drugs. Since embryonic stem cells can now be derived through the use of iPS technology from patients with particular degenerative diseases, stem cells are increasingly likely to be utilized in a wide array of future research programs aimed to model disease processes in the laboratory and to restore the function of organs and tissues damaged by degenerative diseases such as heart failure, stroke, Parkinson's disease, macular degeneration, and diabetes, as well as many other chronic conditions.

We are marketing a line of cell-growth media products called *ESpan*™. These growth media are optimized for the growth of hEPC types. Cells need to be propagated in liquid media, in both the laboratory setting, where basic research on stem cells is performed, and in the commercial sector where stem cells will be scaled up for the manufacture of cell-based therapies or for the discovery of new drugs. We expect that rather than propagating hES cells in large quantities, many end users will instead propagate cells using media optimized for the propagation of hEPCs created from hES cells. Some of our *ESpan*™ products are currently marketed through Millipore Corporation.

ESpy® Cell Lines

Additional new products that we have targeted for launch in 2013 are *ESpy®* cell lines, which will be derivatives of hES cells and will emit beacons of light. The ability of the *ESpy®* cells to emit light will allow researchers to track the location and distribution of the cells in both in *vitro* and in *vivo* studies.

Renevia™ for Cell Delivery Medical Devices and HyStem® Hydrogel for Research

Our *HyStem®* hydrogel product line is one the components in our near-term revenue strategy. *HyStem®* is a patented biomaterial that mimics the ECM, the network of molecules surrounding cells in organs and tissues that is essential to cellular function. Many tissue engineering and regenerative cell-based therapies will require the delivery of therapeutic cells in a matrix or scaffold for proper function. *HyStem®* is a unique hydrogel that has been shown to support cellular attachment and proliferation *in vivo.* Current research at leading medical institutions has shown that *HyStem®* is compatible with a wide variety of tissue types including brain, bone, skin, neural, cartilage, and heart tissues.

We are developing *Renevia*™, a clinical grade *HyStem®* hydrogel, as an injectable product. *Renevia*™ may address an immediate need in cosmetic and reconstructive surgeries and other procedures by improving the process of transplanting adipose derived cells or other adult stem cells. Adult stem cell types such as adipose stem cells obtained from a patient through liposuction can be transplanted back into the same patient at another location in the body, without the risk of rejection associated with the transplant of donor tissues. However, the transplantation of cells without the molecular matrix in which cells normally reside often leads to widespread cell death or the failure of the transplanted cells to remain at the transplant site. The transfer of cells in *Renevia*™ may resolve these issues by localizing the transplanted cells at the intended site and by providing a three-dimensional scaffold upon which cells can rebuild normal tissue. *Renevia*™ may support other emerging cell and tissue transplant therapies such as those derived from hES and iPS cells, in addition to its potential application in the treatment of a number of conditions such as osteoarthritis, brain tumors, stroke, bone fracture, and wounds.

We have successfully completed ISO 10993 biocompatibility studies for *Renevia*™. These tests, as prescribed by the International Organization for Standardization for permanent implantable medical devices, are required by the FDA and European Union regulatory authorities prior to beginning clinical studies in humans. The results of these preclinical studies successfully demonstrated the safety and biocompatibility of *Renevia*™.

Our next milestone will be the completion of manufacture of clinical lots under cGMP by the second quarter of 2013 which will enable the initiation of clinical trials in the European Union by mid 2013. In its first clinical application, *Renevia*™ will be used with autologous adipose cells to restore subcutaneous tissue lost as a result of injury, oncologic resection, or congenital defects. Restoration of the normal skin contour is an important quality-of-life issue, not only in elective cosmetic procedures, but also in reconstructive surgeries needed to repair deformities and traumatic injuries to the face and upper extremities. Our plan is to bring *Renevia*™ to the medical market first in the EU, where the anticipated cost of the clinical trials would be relatively low. Once the use of *Renevia*™ in surgery is established in the EU, we plan to seek FDA approval to market *Renevia*™ in the larger American market where there are approximately 4 million surgical reconstructive procedures performed per year.

Other *HyStem*® hydrogels are currently being used by researchers at a number of medical schools in pre-clinical studies of stem cell therapies to facilitate wound healing; the treatment of ischemic stroke, brain cancer, and vocal fold scarring; and myocardial infarct repair. *HyStem*® hydrogels may have other applications when combined with the diverse and scalable cell types our scientists have isolated from hES cells. Our *HyStem*® technology forms the foundation for unique stem cell delivery products in both the adult and embryonic stem cell marketplace, including products manufactured using our *ACTCellerate*™ technology.

Subsidiaries Focused on Stem Cell-Based Therapies for Specific Diseases

OncoCyte: Novel Cancer Diagnostics and Therapeutics.

Formed in 2009, OncoCyte is developing novel products for the diagnosis and treatment of cancer based on genetic and embryonic stem cell-derived technology in order to improve both the quality and length of life of cancer patients. OncoCyte is developing products that should provide for earlier detection and more effective treatment of numerous cancers as well as developing cellular therapeutics for cancer treatment that will take advantage of the unique biology of vascular endothelial precursor cells.

PanC-DX™ for diagnosis of cancer

OncoCyte's lead diagnostic product is *PanC-Dx*™, a kit designed to detect the presence of various human cancers, including cancers of the breast, lung, bladder, uterus, stomach, and colon in blood during routine check-ups. *PanC-Dx*™ would require only a simple antibody-based blood test. Initial studies performed by OncoCyte have indicated that *PanC-Dx*™ may be useful for detecting a much wider range of cancer types than that detected by blood tests currently available to clinicians. By facilitating early non-invasive detection, *PanC-Dx*™ could lead to more successful therapeutic outcomes through earlier diagnosis and treatment while reducing the costs of cancer monitoring and increasing the availability of affordable cancer screening worldwide

Based on large unmet need, market size, and data generated thus far from patient sera screening, OncoCyte is initially focusing its *PanC-Dx*™ efforts on biomarkers associated with breast cancer. The apparent high correlation of certain combinations of biomarkers in breast cancer has made this indication an attractive initial target. OncoCyte's goal is to launch *PanC-Dx*™ in Europe in 2014 if clinical trials are successful, and later to seek FDA approval to market *PanC-Dx*™ in the U.S. A blood screening test for cancer markers meets the definition of an *in vitro* diagnostic product as defined in the European Directive on *in vitro* diagnostic medical devices (IVD). Under this directive, IVD products placed into the European market must bear the CE mark, which indicates the product is in conformity with all applicable requirements of safety, performance, instructions, markings, and quality sufficient for the safe and effective use of the product.

Our research has demonstrated that many of the same genes associated with the normal growth of embryonic stem cells are abnormally reactivated by cancer cells. Under this premise, we have established a proprietary dataset using RNA microarray technology; this dataset contains expression levels of over 47,000 genes in over 500 unique samples, representing both normal and cancerous tissues and cell lines, including multiple human embryonic stem cell lines. This broad, bioinformatics-based approach has allowed us to identify numerous genes abnormally activated in cancer or tumor cells; many of these genes have not been previously associated with cancer. Moreover, expression of a large subset of these genes is common across numerous cancer types (e.g. cancers of the breast, colon, ovaries, etc.), suggesting these genes may control fundamental processes during cancer growth and progression. This gene expression data set presents numerous diagnostic product opportunities, such as tests designed to do the following: screen patient samples for the presence of cancer, determine which treatment courses have the best chances for producing a favorable response in individual patients, or monitor for the recurrence of a patient's cancer.

OncoCyte has achieved several key advances during 2012, including:

- Completion of the development and characterization of over 50 proprietary, patent pending, monoclonal antibodies targeting 7 novel cancer antigens. OncoCyte's findings show a significant elevation of these antigens in the blood of cancer patients when compared to healthy control patients;
- Initiation of validation studies of ELISA assays in order to demonstrate high-sensitivity detection of target antigens using proprietary monoclonal antibodies;
- Completion of large-scale manufacturing of 11 proprietary monoclonal antibodies;
- Initiation of prototype development for a second detection format (solid phase ELISA point of care testing) through a collaborative development agreement; and
- Initiation of clinical trial protocol design analysis in consultation with key opinion leaders and outside diagnostic experts.

OncoCyte's key goals for 2013 will be:

- Completion of validation of proprietary ELISAs in a patient sample dataset;
- Formalization of additional relationships with key opinion leaders at major medical institutions;
- Institutional review board (IRB) approval and initiation of a large, prospective multicenter patient study at leading breast cancer institutions;
- Presentation of key findings at major oncology-related scientific conferences; and
- Submission of manuscripts to peer-reviewed scientific journals for publication.

Cancer Therapy

The goal of OncoCyte's therapeutic research and development efforts is to derive vascular endothelial cells that can be engineered to deliver a toxic payload to the developing blood vessels of a tumor, with the aim of removing malignant tumors while not affecting nearby normal tissues in the body. The progression of human solid tumors almost always requires the development of a support network of blood vessels to provide nutrients to the expanding tumor mass. The developing tumor vasculature affords an attractive target for anti-cancer therapeutics. Drugs targeting the growth of blood vessels have shown some efficacy in specific cancer applications. However, there is clear need for additional therapeutic approaches that can be used to treat advanced, metastatic cancers. OncoCyte intends to develop a new class of cellular therapeutics that would specifically target the development of tumor vasculature in advanced cancers as an entry point for the delivery of regulated tumoricidal activities.

On January 28, 2011, we acquired the assets of Cell Targeting, Inc. ("CTI"), including technology that uses peptides selected for their ability to adhere to diseased tissues. By coating or "painting" these peptides onto the surface of therapeutic cells using techniques that do not modify the cell physiology, CTI has produced tissue-specific and disease-specific cell modification agents with the potential to elevate cell therapy products to a new level of performance. OncoCyte is using this technology in the development of genetically modified hES-derived vascular progenitors designed to target and destroy malignant tumors.

On August 23, 2011, OncoCyte received $10.0 million in equity financing from us and a private investor. We believe that OncoCyte has sufficient capital to carry out its research and development plan during 2013. We may provide additional financing for OncoCyte, or obtain financing from third parties, based on our evaluation of progress made in its research and development program, any changes to or the expansion of the scope and focus of its research, and our projection of future costs.

We presently own 75.3% of the OncoCyte common stock outstanding. The other shares of OncoCyte common stock are owned by two private investors. OncoCyte has adopted a stock option plan under which it may issue up to 4,000,000 shares of its common stock to officers, directors, employees, and consultants of OncoCyte and BioTime. As of December 31, 2012, options to purchase 2,730,000 shares of OncoCyte common stock had been granted.

OrthoCyte: Osteochondral Progenitor Cells for Orthopedic indications

OrthoCyte is our wholly owned subsidiary developing cellular therapeutics for orthopedic disorders. OrthoCyte's lead project is the development of hEPC to repair cartilage damaged by injury or disease, including osteoarthritis. OrthoCyte has identified several *PureStem*™ cells that display potential to differentiate into diverse types of cartilage, and these lines are showing promising results in animal preclinical testing for effectiveness of cartilage repair. Our current goal is to demonstrate the safety and efficacy of the cells using *in vivo* models of articular disease. OrthoCyte has compiled proprietary animal preclinical data on two therapeutic product candidates designated as OTX-CP03 and OTX-CP07, which are formulated in our *HyStem*® hydrogel, and which showed initial evidence of safety and efficacy in animal models of joint disease. If our studies in animal models prove successful, we would plan to initiate an Investigational New Drug ("IND") filing with the FDA for this application.

Cartilage defects and disease affect our aging population. In particular osteoarthritis and spinal disc degeneration have a significant impact on the mobility and health of an aging population. Current non-surgical treatments tend to target the reduction of pain and inflammation, as opposed to the repair of tissue damage and reversal of deterioration. To date, the development of cell-based therapeutics to treat damaged cartilage has met with mixed success. Autologous chondrocytes have been tested as a means of providing cartilage-producing cells, but this approach is hampered by a multi-step process that first requires the harvesting of chondrocytes from donor tissues, followed by *in vitro* culture expansion of the harvested cells. Primary chondrocytes have very limited capacity for *in vitro* expansion and typically lose their biological characteristics within a short period of *in vitro* culture. Mesenchymal stem cells have also been tested extensively as a source of cellular therapeutics for cartilage treatment, but success has remained limited, partly as a result of the hypertrophy of these cells inducing bone and fibrous tissue instead of permanent cartilage.

Additional in vitro testing suggests a wide range of possible applications for osteochondral *PureStem*™ cells. OrthoCyte is preparing to test the utility of various osteochondral *PureStem*™ cells that display potential to differentiate into bone and other types of cartilage-like tissues such as intervertebral disc tissue. In collaboration with world-renown academic institutes in the field of degenerative disc disease and back pain, *PureStem*™ cells formulated in our *HyStem*® hydrogel will be tested in spine disease animal models broadly recognized for their translation potential to clinical trial development. This screening phase should allow OrthoCyte to assess and potentially select a *PureStem*™ cell candidate for intervertebral disc repair and bone induction. We anticipate that successful selection of candidates would move our spine program to an optimization phase followed with a pre-IND meeting with FDA to discuss regulatory paths and additional expected pre-clinical requirements.

Chronic back pain is one of the largest unmet health economic burdens in modern society. With more than 85% lifetime prevalence, nearly everyone is affected in their lifetime. In most cases, chronic back pain stems from the progressive degeneration of the avascular intervertebral disc tissue which cushions the vertebrae in the spinal column. This tissue is structurally and functionally similar to other cartilage tissues. Currently there are no treatment options for people suffering from degenerative disc disease other than risky invasive surgery to fuse the affected discs. A therapy that would slow down or reverse disc degeneration to delay or avoid surgery would have a great impact in the largest musculoskeletal unmet need. Various biologic approaches using growth factors or cells from different adult tissues are in various phases of preclinical and early clinical development, but so far none have proven to work effectively. The opportunity for OrthoCyte to screen, and select a candidate with the appropriate attributes to effectively impact the disease process is an important differentiating factor from other competing technologies.

We presently own a 100% equity interest in OrthoCyte. We plan to provide additional equity capital to OrthoCyte or seek outside investors. OrthoCyte has adopted a stock option plan under which it may issue up to 4,000,000 shares of its common stock to officers, directors, employees, and consultants of OrthoCyte and BioTime. As of December 31, 2012, options to purchase 2,605,000 shares of OrthoCyte common stock had been granted.

Cell Cure Neurosciences

Cell Cure Neurosciences is developing cell therapies for retinal and neural degenerative diseases. Cell Cure Neurosciences is the neurological arm for BioTime's program for the development of human embryonic stem cell-based therapies.

Cell Cure Neurosciences' pipeline includes two major development programs at present:

- Retinal cell therapies *OpRegen*™ and *OpRegen-Plus*™ are Cell Cure Neurosciences' proprietary formulations of embryonic stem cell-derived retinal pigmented epithelial ("RPE") cells developed to address the high, unmet medical needs of people suffering from age-related macular degeneration ("dry AMD"). *OpRegen-Plus*™ is a formulation of RPE cells bound to a membrane.

- Cell therapy products for neurodegenerative diseases. Cell Cure Neurosciences is developing neural progenitor cells designed to replace the dopamine producing cells destroyed in Parkinson's disease, and *NeurArrest*™, neural cells that target and modulate the immune system's self-destruction of the myelin coating of nerve cells in multiple sclerosis.

The U.S. Centers for Disease Control and Prevention estimate that about 1.8 million people in the U.S. have advanced-stage AMD, while another 7.3 million have an earlier stage of AMD and are at risk of vision impairment from the disease. Most people are afflicted with the dry form of the disease, for which there is currently no effective treatment. One of the most promising future therapies for age-related AMD is the replacement of the layer of damaged RPE cells that support and nourish the retina. In the past, RPE cells have been obtained from other regions of the diseased eye, or from fetal and adult donor tissue and various cell lines. However, the lack of a reliable and ample supply of healthy RPE cells has hindered the development of RPE transplantation as a therapeutic approach to AMD. RPE cells derived from hES cells may prove to be the best source of RPE cells for transplantation, provided the technology can be developed for producing RPE cells from hES cells in homogeneous, large quantities.

Cell Cure Neurosciences' research and development is conducted at Hadassah University Hospital, through research and consulting agreements with HBL-Hadasit Bio-Holding's ("HBL") affiliate Hadasit Medical Research Services and Development, Ltd. ("Hadasit"), under the direction of Professor Benjamin E. Reubinoff, Cell Cure Neurosciences' Chief Scientific Officer; Professor Eyal Banin, Cell Cure Neurosciences' Director of Clinical Affairs; and Professor Tamir Ben Hur.

Until now, researchers have had to rely on the spontaneous differentiation of hES cells into RPE cells, but that differentiation occurs in only a few hES cell lines. To achieve the full potential of hES cells for the production of RPE cells, a reliable, driven differentiation method is required. Cell Cure Neurosciences is using a new method developed by scientists at Hadassah University Hospital that drives the differentiation of hES cells into RPE cells. These researchers have shown in a small animal model of AMD that RPE cells produced using this method can preserve vision when the cells are transplanted in the subretinal space.

In October 2010, we, along with Teva Pharmaceutical Industries, Ltd. ("Teva") and HBL, invested $7.1 million in Cell Cure Neurosciences, primarily to fund the develop of *OpRegen*™. At the same time, Cell Cure Neurosciences and Teva entered into a Research and Exclusive License Option Agreement (the "Teva License Option Agreement") under which Teva obtained an option to acquire an exclusive worldwide license to complete the clinical development of, and to manufacture, distribute and sell *OpRegen*™ as well as *OpRegen-Plus*™. *OpRegen-Plus*™ is another proprietary product that Cell Cure Neurosciences is developing for the treatment of age-related macular degeneration, but in which the RPE cells are supported on or within a membrane instead of in suspension. *OpRegen-Plus*™ is at an earlier stage of laboratory development than *OpRegen*™.

If Teva exercises the option, it will pay Cell Cure Neurosciences $1,000,000. Thereafter, Teva will bear all costs and expense of clinical trials and of obtaining regulatory approvals required to market the product. Teva will make the milestone payments to Cell Cure Neurosciences as the clinical development and commercialization of the product progress. Milestone payments will be made upon the first use of the product in a Phase II clinical trial; the first use of the product in a Phase III clinical trial; the first commercial sale of the product in the U.S., and the first commercial sale of the product in a European Union country. If all of the milestones are met, Cell Cure Neurosciences will receive a total of $28.5 million in milestone payments, in addition to the $1,000,000 option payment, for the first approved medical indication of *OpRegen*™. Cell Cure Neurosciences would be entitled to receive certain additional milestone payments upon the first commercial sale of *OpRegen*™ for each additional medical indication in the U.S. or a European Union nation. In addition to milestone payments, Teva will pay Cell Cure Neurosciences royalties on the sale of the product, at rates ranging from 6% to 10% of the net sale price of *OpRegen*™ depending upon the total amount of annual sales. The royalty payments will be reduced by 50% with respect to sales in any country in which a generic equivalent product is being sold by a third party unrelated to Teva.

If Teva exercises its option to license *OpRegen-Plus*™, Teva and Cell Cure Neurosciences would enter into an additional license agreement on substantially the same terms as the *OpRegen*™ license, including the milestone payments for the first medical indication of *OpRegen-Plus*™, and additional milestone payments for the first sale of the product for additional indications, royalties on net sales, and a share of any *OpRegen-Plus*™ sublicense payments the Teva might receive.

If Teva sublicenses its rights to a third party, Teva will pay Cell Cure Neurosciences a share of any payments of cash or other consideration that Teva receives for the sublicense, excluding (i) gross receipts for commercial sales that are subject to royalty payments to Cell Cure Neurosciences, (ii) amounts received from a sublicensee solely to finance research and development activities to be performed by or on behalf of Teva, or (iii) payments received in reimbursement for patent expenses incurred after the grant of the sublicense.

A portion of milestone payments, royalties, and sublicensing payments received by Cell Cure Neurosciences would be shared with our subsidiary ESI and with Hadasit, which have licensed to Cell Cure Neurosciences certain patents and technology used in the development of *OpRegen*™ and *OpRegen-Plus*™. Those patents will be sublicensed to Teva under the Teva Option Agreement.

If Teva exercises its option and commercializes *OpRegen*™ or *OpRegen-Plus*™, its obligation to pay royalties on sales of those products will expire on a country by country and indication by indication basis with respect to a product on the later of (i) fifteen (15) years after the first commercial sale of the product for the applicable indication for use in that country, or (ii) the expiration in that country of all valid patent claims covering the applicable indication for use of the product. The patent expiration dates cannot be presently determined with certainty, but certain patents licensed to Cell Cure Neurosciences by ESI and Hadasit for use in the development of *OpRegen*™ and *OpRegen-Plus*™ will expire in 2023 and 2022, respectively.

The Teva License Option Agreement will terminate if (a) Teva does not exercise its option within 60 days after an IND application filed by Cell Cure Neurosciences becomes effective for a Phase I clinical trial of a product covered by the Teva License Option Agreement, or (b) Teva determines not to continue funding of the research and development of a product after Cell Cure Neurosciences has expended its designated budget plus certain cost over-runs. Teva may also terminate the Teva License Option Agreement at any time by giving Cell Cure Neurosciences 30-day notice. Either party may terminate the license if the other party commits a material breach of its obligations and fails to cure the breach within 45 days after notice from the other party, or if the other party becomes subject to bankruptcy, insolvency, liquidation, or receivership proceedings.

Cell Cure Neurosciences' cell therapy products under development for the treatment of neurodegenerative diseases include (a) neural progenitor cells designed to replace the dopamine producing cells destroyed in Parkinson's disease, and (b) Cell Cure Neurosciences' *NeurArrest*™ neural cells that target and modulate the immune system's self-destruction of the myelin coating of nerve cells in multiple sclerosis.

Parkinson's is an age-related disease caused by the loss of a certain type of cell in the brain. According to the Parkinson's Disease Foundation, Parkinson's disease affects approximately 1 million people in the U.S. and more than 4 million people worldwide. The median age for the onset of all forms of Parkinson's disease is 62, and the number of new cases is rising rapidly with the aging of the baby-boomer population. There is currently no cure for the disease.

While not a classic age-related disease, multiple sclerosis is also on the rise and the National Multiple Sclerosis Society estimates that there are about 400,000 persons with multiple sclerosis in the U.S. Most people are diagnosed with the disease between the ages of 20 and 50.

To advance its programs for the development of treatments for neurodegenerative diseases such as Parkinson's disease and multiple sclerosis, Cell Cure Neurosciences has entered into an Additional Research Agreement with Hadasit pursuant to which Hadasit will perform research services for Cell Cure Neurosciences over a period of five years. Cell Cure Neurosciences will pay Hadasit $300,000 per year for the research services over the course of the five-year term of the Additional Research Agreement. Hadasit will be entitled to receive a royalty on the sale of any products developed under the agreement and commercialized by Cell Cure Neurosciences. The amount of the royalty will be determined by future agreement between Hadasit and Cell Cure Neurosciences, taking into consideration their respective contributions to the development of the product, or if they fail to agree, the royalty terms will be determined by a third-party expert.

We have entered into a Third Amended and Restated Shareholders Agreement with Cell Cure Neurosciences, Teva, HBL, and ESI pertaining to certain corporate governance matters and rights of first refusal among the shareholders to purchase on a pro rata basis any additional shares that Cell Cure Neurosciences may issue. Under the agreement, the shareholders also granted each other a right of first refusal to purchase any Cell Cure Neurosciences shares that they may determine to sell or otherwise transfer in the future. The number of members on the Cell Cure Neurosciences board of directors will be set at seven, whereby we will be entitled to elect four directors, HBL will be entitled to elect two directors, and Teva will be entitled to elect one director. These provisions were also included in an amendment to Cell Cure Neurosciences' Articles of Association.

In November 2012, we entered into a share purchase agreement with Cell Cure Neurosciences through which we agreed to purchase 87,456 Cell Cure Neurosciences ordinary shares in exchange for 906,735 BioTime common shares. As a result of the share purchase, which closed in January, 2013, BioTime owns, directly and through its wholly owned subsidiary ESI approximately 62.6% of the outstanding ordinary shares of Cell Cure Neurosciences.

ReCyte Therapeutics— Treatment of Vascular Disorders

ReCyte Therapeutics focuses on developing treatments for vascular disorders, including both age-related diseases and injuries. The company was founded in January 2011 as a subsidiary of BioTime, Inc. with significant investment by private shareholders and by us.

The main therapeutic indications for ReCyte Therapeutics products include cardiovascular-related diseases (including cerebrovascular disease or stroke), peripheral artery disease resulting in critical limb ischemia (due to embolism or thrombosis), and acquired or secondary lymphedema. Therapeutics for cardiovascular-related diseases and complications of cancer treatment combined represent some of the largest, fastest-growing actual and potential markets due to the aging of the baby-boomer population. ReCyte Therapeutics is working to produce better, more potent therapeutics for these major unmet needs.

Cardiovascular-related diseases are among the leading causes of death and disability in the U.S., and they consume a major and ever-increasing proportion of health care costs. The National Academy of Sciences has estimated that a potential 58 million Americans are afflicted with cardiovascular disease.

Acquired lymphedema is caused by trauma to the lymphatic vasculature, and in women is an especially common complication of surgical or radiation treatment for breast and gynecologic malignancies. This affliction presents as chronic swelling and inflammation of an extremity caused by the accumulation of excess lymphatic fluid. It can begin weeks, months or years after treatment, and does not self-resolve in moderate to severe cases. Various published estimates place the proportion of female breast cancer survivors in the U.S. that will develop lymphedema over their lifetime at from 10% to 40% (200,000 to 400,000 women). Currently, there is no advanced pharmacologically-based treatment for this condition.

ReCyte Therapeutics' products are derived from hES and iPS pluripotent stem cells sources. They are being designed as either cellular or totally acellular (cell-free) compositions for specific uses. Acellular products (essentially, protein biologics) would represent an entirely new class of stem cell-derived therapeutics. Our approaches exploit the widely-held view that products derived from these most primitive sources have unparalleled potential to produce tissue regenerative responses, as compared to the varying amounts of fibrosis and scarring that typically result in marginal or incomplete therapeutic responses achieved with other, especially adult-derived cell products. Our "eternally youthful" cells also provide unequalled advantages for engineering and tailoring for specific applications during manufacturing stages without incurring a loss of growth potential.

ReCyte Therapeutics has established three core platform technologies with broad applications in developing to therapies for vascular disorders: (1) cell reprogramming to reverse developmental aging; (2) highly efficient derivation of endothelial progenitor cells; and (3) secreted trophic factors of embryonic progenitor cells (a cell-free or acellular product) that can guide tissue and organ regeneration.

These platform technologies are further described below:

Cell Reprogramming

We acquired licenses to intellectual property on reprogramming of cells to pluripotency using key transcription factors in the form of very early patent filings by our Chief Executive Officer, Dr. Michael West and co-inventors at Advanced Cell Technology, Inc. ("ACT"). ReCyte Therapeutics has filed patent applications on work at BioTime related to this technology. The advantages of cells that can be reprogrammed to a pluripotent state and then re-differentiated to a specific cell type needed by a patient, is that the process can be done using only the patient's own body cells, which should make the newly generated cells transplantable back into the patient without the need to administer immunosuppressive drugs to prevent the patient's body from rejecting the transplant. ReCyte Therapeutics plans to develop a manufacturing process for the large scale reprogramming of human skin and blood cells by resetting telomere length and simultaneously resetting the cell's stage of development to the embryonic state. One application of the research and development effort under consideration is the establishment of a cost-effective manufacturing platform that would be the basis of a cell banking service. Another useful application would be the establishment of a so-called "reduced complexity library" of pluripotent stem cell lines representing the most common HLA types, so that cells and tissues derived from these may be suitable for transplantation to other recipients using reduced immunosuppressive regimens.

Endothelial Progenitor Cells

Scientists at ReCyte Therapeutics and BioTime have invented and established a medium industrial-scale, highly consistent and GMP-compatible process for the directed differentiation of pure endothelial progenitor cells that may be used to repair or regenerate blood and lymphatic vasculature. Endothelial cells are the cells that form the linings of these vessels. These cells have been successfully cryopreserved as cell banks, and then have been recovered efficiently and demonstrated to retain their properties in tissue culture. Our derivation processes have been established under chemically-defined, serum-free, xeno-free (no exposure to any non-human component) conditions from multiple embryonic stem cell lines, including from our GMP-compatible, NIH-registered, ESI lines. These cells have been extensively characterized by gene expression profiling, surface antigen marker phenotyping, and functional assays in vitro. In addition, extensive characterization of our *PureStem*™ (*ACTCellerate)* library of hEPC (which were clonally derived from hES cell lines and selected for scalability in cell culture) has resulted in the identification of several lines with endothelial cell characteristics. Initial preclinical functional studies *in vivo* on both types of these cell products using well-established small animal models of vascular disorders are in progress. An example of the cross-functional interactions between us and other BioTime subsidiary companies is OncoCyte's investigation of these cells for homing to tumor targets in model systems. The ultimate goal of ReCyte's applications for this platform technology is to configure these cells as therapeutics that can be engrafted into patients with vascular disorders in order to quickly restore blood or lymphatic vessel integrity.

Trophic Factors

It is increasingly recognized in the cellular therapy field that therapeutic effects attributed to grafts of adult stem cells and other cell types obtained from bone marrow and blood are often the result of factors secreted by the cells (so-called "paracrine effects"), rather than the stable and functional integration of the cells themselves into the patient's damaged tissue. ReCyte Therapeutics' extensive characterization of our *PureStem*™ (*ACTCellerate*™) library of hEPC has resulted in the identification of certain lines that are abundant natural sources of extracellular secreted products such as cytokines, growth factors, and extracellular matrix (ECM) components. These substances are widely classified as "trophic factors," and some have been shown to have angiogenic (blood vessel-forming), cytoprotective, neurogenic and/or cardiogenic properties. We believe that natural counterparts to a number of these hEPC exist in developing embryos, where the trophic factors may provide instructions for the generation of specific organ systems and tissues. ReCyte Therapeutics is working to more fully characterize these trophic factors and to evaluate the cell lines as a source of novel therapeutic drugs for regenerative applications in patients with vascular disorders. This strategy could represent a significant breakthrough for improving drug biopotency. Additionally, acellular products may provide a more straightforward drug development pathway toward regulatory approval and broader off-the-shelf patient delivery capabilities than some cellular products.

With the capital obtained from a recent $2.5 million private equity financing, ReCyte Therapeutics will also begin preclinical studies to support future clinical trials of this new class of human therapeutics for vascular and blood disorders. These latter therapeutic uses of the cells will require testing and approval by regulatory agencies such as the FDA.

During August 2011, BioTime entered into a License Agreement with Cornell University for the worldwide development and commercialization of technology developed invented by Dr. Shahin Rafii and co-workers at Weill Cornell Medical College for the differentiation of hES cells into vascular endothelial cells. This technology may help to provide an improved means of generating vascular endothelial cells on an industrial scale and with stronger intellectual property protection. This technology could be utilized by us in diverse products, including those under development at ReCyte Therapeutics to treat age-related vascular diseases and injuries, and in products being developed at OncoCyte targeting the delivery of toxic payloads to cancerous tumors.

ReCyte Therapeutics plans to use the Cornell technology with the *ACTCellerate*™ technology to produce highly purified monoclonal embryonic vascular endothelium.

In conjunction with the Cornell License Agreement, during August 2011, we also entered into a three year Sponsored Research Agreement under which scientists at Weill Cornell Medical College, led by Dr. Sina Rabbany, will engage in research with the goals of (1) verifying the ability of progenitor cells, derived by ReCyte Therapeutics, to generate stable populations of vascular endothelial cells, (2) testing the functionality and transplantability of the vascular endothelial cells in animal models to see if the transplanted cells generate new vascular tissue, and (3) using *HyStem*® hydrogels, produced by our subsidiary OrthoCyte, and other materials as "scaffolds" for the three-dimensional propagation of vascular endothelial cells into vascular tissues suitable for transplantation.

We presently own 95.15% of the ReCyte Therapeutics common stock outstanding. The other shares of ReCyte Therapeutics common stock outstanding are owned by two private investors. ReCyte Therapeutics has adopted a stock option plan under which it may issue up to 4,000,000 shares of its common stock to officers, directors, employees, and consultants of ReCyte Therapeutics and BioTime. As of December 31, 2012, options to purchase 1,550,000 shares of ReCyte Therapeutics common stock had been granted.

LifeMap Sciences

LifeMap Sciences markets *GeneCards*®, the leading human gene database, as part of an integrated database suite that includes *LifeMap Discovery*™, the database of embryonic development, stem cell research and regenerative medicine; and *MalaCards*, the human disease database. LifeMap Sciences also markets *PanDaTox*, a database that can be used to identify genes and intergenic regions that are unclonable in E. coli, to aid in the discovery of new antibiotics and biotechnologically beneficial functional genes. LifeMap Sciences makes its databases available for use by stem cell researchers at pharmaceutical and biotechnology companies and other institutions through paid subscriptions or on a fee per use basis. Academic institutions have free access to use the databases.

LifeMap Sciences is also offering our research products for sale, utilizing its databases as part of its strategy for marketing our research products online to reach life sciences researchers at biotech and pharmaceutical companies and at academic institutions and research hospitals worldwide. The *LifeMap Discovery*™ data base provides access to available cell-related information and resources necessary to improve stem cell research and development of therapeutics based on regenerative medicine and may promote the sale of our *PureStem*™ hEPC by permitting data base users to follow the development of hES cell lines to the purified hEPC state. This platform will also be utilized by us and our subsidiaries for internal and collaborative efforts.

We presently own 73.2% of the LifeMap Sciences common stock outstanding. The other shares of LifeMap Sciences common stock outstanding are owned by certain officers and directors of LifeMap Sciences and by other investors. LifeMap Sciences has adopted a stock option plan under which it may issue up to 1,842,269 shares of its common stock to officers, directors, employees, and consultants of LifeMap Sciences and BioTime. As of December 31, 2012, options to purchase 918,773 shares of LifeMap Sciences common stock had been granted.

BioTime Asia—Therapeutic and Research Products for Certain Asian Markets

BioTime Asia was organized to develop therapeutic products for the treatment of ophthalmologic, skin, musculoskeletal system, and hematologic diseases, including the targeting of genetically modified stem cells to tumors as a novel means of treating currently incurable forms of cancer. BioTime Asia will focus on markets in the People's Republic of China, including Hong Kong and Macau, but it may also offer research products in other Asian countries.

We may license to BioTime Asia the rights to use certain stem cell technology, and we may sell to BioTime Asia stem cell products for therapeutic use and for resale as research products. To the extent permitted by law, BioTime Asia will license back to us for use outside of the People's Republic of China any new technology that BioTime Asia might develop or acquire.

We presently own 81% of the BioTime Asia common stock outstanding. The other shares of BioTime Asia common stock outstanding are owned by Nanshan Memorial Medical Institute Limited ("NMMI"), a private Hong Kong company. Either we or NMMI may terminate the agreement under which NMMI acquired its shares in BioTime Asia if (a) certain clinical trial milestones are not met, including the commencement of the first clinical trial of a therapeutic stem cell product within two years; or (b) BioTime Asia's gross sales of products are less than $100,000,000 during any fiscal year after the sixth anniversary of the agreement; or (c) the other party breaches the agreement. We also have the right to purchase NMMI's shares of BioTime Asia.

BioTime Asia has adopted a stock option plan under which it may issue up to 1,600 ordinary shares to officers, directors, employees, and consultants of BioTime Asia and BioTime. As of December 31, 2012, options to purchase 400 BioTime Asia ordinary shares had been granted.

BioTime Acquisition Corporation and the Asset Contribution Agreement

In September 2012 we formed a new subsidiary, BAC, to acquire assets in the stem cell field for use in developing and commercializing products for regenerative medicine. On January 4, 2013, we and BAC entered into an Asset Contribution Agreement with Geron Corporation pursuant to which we and Geron will concurrently contribute certain assets to BAC in exchange for shares of BAC common stock and we will also acquire BAC stock purchase warrants. Closing of the asset contribution transaction is expected to occur in 2013 and specifically no later than September 30, 2013.

Assets to Be Contributed

Pursuant to the Asset Contribution Agreement, we will contribute to BAC 8,902,077 BioTime common shares; warrants to purchase 8,000,000 additional BioTime common shares (the "Contribution Warrants") exercisable for a period of five years at an exercise price of $5.00 per share, subject to pro rata adjustment for certain stock splits, reverse stock splits, stock dividends, recapitalizations and other transactions; $5 million in cash (the "BioTime Cash Contribution"); 10% of the shares of common stock of OrthoCyte that were issued and outstanding on the date of the Asset Contribution Agreement; 6% of the ordinary shares of our subsidiary Cell Cure Neurosciences that were issued and outstanding on the date of the Asset Contribution Agreement; a quantity of certain human embryonic stem cell lines produced under "good manufacturing practices" and a non-exclusive, world-wide, royalty-free license to use those stem cell lines; and a non-exclusive, world-wide, royalty-free license to use certain patents pertaining to stem cell differentiation technology for any and all purposes.

Pursuant to the Asset Contribution Agreement, Geron will contribute to BAC Geron's human embryonic stem cell assets, including certain patents and know-how related to human embryonic stem cells; certain biological materials and reagents; certain laboratory equipment; certain contracts; Geron's Phase 1 clinical trial of oligodendrocyte progenitor (OPC-1) cells in patients with acute spinal cord injury, and Geron's autologous cellular immunotherapy program, including the Phase 2 clinical trial of autologous immunotherapy in patients with acute myelogenous leukemia; and certain regulatory filings, including the investigational new drug applications filed with the FDA for the two clinical trials.

The patent portfolio that BAC will acquire from Geron through the Asset Contribution Agreement includes over 400 patents and patent applications owned or licensed to Geron relating to human embryonic stem ("hES") cell-based product opportunities. This portfolio consists primarily of patents and patent applications owned by Geron, but also includes patent families licensed to Geron by third parties.

The patent portfolio includes patents and patent applications covering a number of cell types that can be made from hES cells, including hepatocytes (liver cells), cardiomyocytes (heart muscle cells), neural cells (nerve cells, including dopaminergic neurons and oligodendrocytes), chondrocytes (cartilage cells), pancreatic islet ß cells, osteoblasts (bone cells), hematopoietic cells (blood-forming cells) and dendritic cells. The patent portfolio also includes technologies for growing hES cells without the need for cell feeder layers, and novel synthetic growth surfaces.

The products that Geron had under development from various cell types that BAC will acquire from Geron are summarized in the following table:

Product Description	Target Market	Estimated Number of Potential Patients	Status
OPC1 – Glial Cells	Spinal Cord Injury Multiple Sclerosis, Canavan's Disease, and Stroke	25,000 patients	SCI Phase 1 Trial initiated in U.S. 5 Patients treated – no adverse events to-date. Proof of principle achieved in animals models of spinal cord injury, MS spine and Canavan's Disease.
CM-1 Cardiomyocytes	Heart Failure, Myocardial Infarction		Cells derived and fully characterized. Proof of concept in three animal models of disease. Scalable manufacturing established. First in man clinical trial designed.
IC-1 – Islet Cells	Type 1 and some Type 2 Diabetes	12.5 million patients	Cells derived and partly characterized. Proof of concept in rodent diabetes model. Scalable manufacturing methods under development.
CHND-1 – Chondrocytes	Osteoarthritis	30 million patients	Cells derived and partly characterized. Early proof of concept in two animal models of disease.
VAC-2 – Dendritic Cells	Cancer Infectious and Autoimmune Diseases	Large patient population	Cells derived and fully characterized. Scalable manufacturing methods under development. Proof of concept established in multiple human in vitro systems.
VAC-1 Autologous Monocyte – Derived Dendritic Cells	Cancer	Prostate: 240,000 cases/year U.S. AML: > 12,000 cases/year U.S.	Phase I study in metastatic prostate cancer completed. (J. of Immunology 2005, 174: 3798-3807) Phase I/II study in AML completed. Manuscript in preparation.

BAC has not yet determined which products it will seek to develop or the order of priority in which it will commence its product development efforts after the closing of the Asset Contribution under the Asset Contribution Agreement. The choice and prioritization of products for development from the acquired assets, and the cost and developmental time required to develop any of them, is not presently determinable due to many factors including the following:

- the functional state of the transferred cells, cell lines and other biological reagents cannot be determined until they are transferred to BAC upon completion of the Asset Contribution and are then tested in an appropriate laboratory setting by qualified scientific personnel using validated equipment, which may not be completed for three to six months after the Asset Contribution;

- BAC will need to complete an analysis of third party competitive and alternative technology that, for example, may provide superior methods of manufacturing the cell types listed above. Alternative technology, if it exists, may or may not be available for in-licensing, and could potentially affect the choice of products to develop;

- BAC and BioTime will need to complete an analysis of products and technologies being developed by BioTime and our other subsidiaries to determine whether any of those products or technologies may enhance or be substituted for any of the acquired Geron cell lines or technologies;

- the inherent uncertainty of laboratory research and any clinical trials that BAC may conduct;

- the amount of capital that BAC will have for its development programs, including potential sources of additional capital through research grants or collaborations with third parties;

- the availability and recruitment of qualified personnel to carry out the analyses and evaluations described above;

- the views of the United States Food and Drug Administration (FDA) and comparable foreign regulatory agencies on the pre-clinical product characterization studies required to file an Investigational New Drug Application (IND) in order to initiate human clinical testing of potential therapeutic products.

BAC may also use the acquired assets, along with technology that it may develop itself or that it may acquire from third parties, to pursue the development of other products. BAC's product development efforts may be conducted by BAC alone or in collaboration with others if suitable co-development arrangements can be made.

Cash Contribution in BAC by Private Investor

A private investor has agreed to contribute $5 million in cash to BAC for 2,136,000 shares of BAC Series B common stock, and warrants to purchase 350,000 additional shares of BAC Series B common stock ("BAC Warrants"). That investment will be made in conjunction with the closing under the Asset Contribution Agreement. Closing of the cash contribution by the private investor is subject to certain other negotiated closing conditions. If for any reason the private investor fails to make the $5 million contribution, we will contribute cash, BioTime common shares (valued only for this purpose at $3.37 per share), or a combination of cash and BioTime common shares to BAC in an amount equal to the cash not contributed by the private investor and we will receive the BAC Series B common stock and BAC Warrants that otherwise would have been sold to the investor.

The same private investor also entered into a Stock and Warrant Purchase Agreement with us pursuant to which the investor agreed to invest $5 million in us by purchasing, in two tranches, an aggregate of 1,350,000 BioTime common shares and warrants to purchase approximately 650,000 additional BioTime common shares. This investment is intended to fund the BioTime Cash Contribution. The first tranche, of $2 million, was funded during January 2013, and we issued 540,000 common shares and warrants to purchase 259,999 common shares to the investor. The second tranche of $3 million was originally intended to close later this year concurrent with the closing of the Asset Contribution Agreement. However, on March 7, 2013 we executed an amendment with the investor to accelerate the closing date to April 10, 2013. Upon closing of the second tranche, we will issue to the investor 810,000 common shares, and warrants to purchase an additional 389,998 common shares at an exercise price of $5.00 per share.

Assumption of Liabilities

BAC will assume all obligations and liabilities in connection with the assets contributed by Geron, to the extent such obligations and liabilities arise after the closing date of the Asset Contribution Agreement, including certain obligations to provide follow-up procedures with patients who participated in Geron's clinical trial of its OPC-1 stem cell product to treat spinal cord injury, and a clinical trial of an immunological therapy to treat acute myelogenous leukemia and other liabilities that could arise with respect to those clinical trials. Upon the closing under the Asset Contribution Agreement, BAC will be substituted for Geron as a party in an appeal by Geron of two rulings in favor of Viacyte, Inc. by the United States Patent and Trademark Office's Board of Patent Appeals and Interferences, filed by Geron in the United States District Court for the Northern District of California on September 13, 2012. BAC will assume all liabilities arising after the closing under the Asset Contribution Agreement with respect to that appeal the related patent interference proceedings and certain other pending patent interference proceedings.

Ownership of BAC Common Stock; Distribution of BAC Series A Common Shares and Contribution Warrants; Listing

Upon the closing under the Asset Contribution Agreement, we will own 21,773,340 shares of BAC Series B common stock and Geron will own 6,537,779 shares of BAC Series A common stock. Upon the sale of BAC shares to the private investor, the private investor will own 2,136,000 shares of BAC Series B common stock.

Geron has agreed to distribute to its stockholders on a pro rata basis the shares of BAC Series A common stock that Geron receives in the asset contribution transaction following the closing under the Asset Contribution Agreement. Following that distribution by Geron, BAC will distribute to the holders of its Series A common stock on a pro rata basis the 8,000,000 Contribution Warrants.

Following the distributions of the BAC Series A common stock by Geron to its stockholders, we will own, including the shares of BAC Series B common stock that we presently own, approximately 71.6% of the outstanding BAC common stock, the Geron stockholders will own approximately 21.4% of the outstanding BAC common stock and the private investor will own approximately 7.0%, of the outstanding BAC common stock.

We will also receive warrants to purchase 3,150,000 shares of BAC Series B common stock and the private investor will receive warrants to purchase 350,000 shares of BAC Series B common stock (together, the "BAC Warrants"). The BAC Warrants will enable us, together with the private investor, to increase our collective ownership in BAC by approximately 2.2%, which would reduce the Geron stockholders' ownership in BAC to approximately 19.2%. The BAC Warrants will have an exercise price of $5.00 per share and a term of three years. The exercise price per share and number of shares that may be purchased upon the exercise of the BAC Warrants will be subject to adjustment in the event of any BAC stock split, reverse stock split, stock dividend, reclassification of shares and certain other transactions.

The BAC Series A and Series B common stock will be identical in most respects, however, BAC will be entitled to make certain distributions or pay dividends, other than stock dividends, on its Series A common stock, without making a distribution or paying a dividend on its Series B common stock. The BAC Series B common stock may be converted into BAC Series A common stock, on a share for share basis, at BAC's election, only after Geron distributes to its stockholders the BAC Series A common stock issued under the Asset Contribution Agreement and BAC subsequently distributes to the BAC Series A common stock holders the Contribution Warrants.

BAC plans to seek to list its Series A common stock, and BioTime intends to seek to list the Contribution Warrants, on a national securities exchange.

Representations, Warranties and Covenants

The Asset Contribution Agreement contains representations, warranties and covenants of the parties customary for a transaction of this type. Until the earlier of the closing of the asset contribution transaction and the termination of the Asset Contribution Agreement, (i) Geron is not permitted to solicit inquiries or engage in discussions with third parties regarding any proposal to acquire more than an immaterial portion of the assets to be contributed by Geron to BAC, subject to Geron's ability to solicit and engage in certain change of control transactions other than a change of control transaction that would reasonably be expected to adversely affect, materially delay or prevent the consummation of the asset contribution transaction, and (ii) we and BAC are not permitted to solicit inquiries or engage in discussions with third parties regarding any proposal for a transaction that could reasonably be expected to materially delay or prevent the asset contribution transaction, subject to the fiduciary duties of our board of directors. In addition, certain covenants under the Asset Contribution Agreement require each party to use reasonable best efforts to cause the asset contribution transaction to be consummated.

Additionally, we are required to promptly seek the approval of our shareholders of an amendment of our Articles of Incorporation increasing the number of authorized common shares and preferred shares that we may issue, and approving the issuance of the BioTime common shares and warrants to be issued in the asset contribution transaction and the related BioTime share and warrant sale to the private investor (the "Shareholder Proposals"). In addition, we are required under the Asset Contribution Agreement to file a registration statement (the "BioTime Registration Statement") to register under the Securities Act of 1933, as amended (the "Securities Act") the Contribution Warrants and the underlying BioTime common shares, and to use our reasonable best efforts to cause the BioTime Registration Statement to be declared effective by the SEC. BAC is required to file a registration statement (the "BAC Registration Statement" and, together with the BioTime Registration Statement, the "Registration Statements") with the SEC to register the BAC Series A common stock to be issued to Geron, and to use its reasonable best efforts to cause the BAC Registration Statement to be declared effective.

Closing Conditions

Closing of the asset contribution transaction is subject to certain negotiated conditions, including: the effectiveness of both Registration Statements under the Securities Act; the effectiveness of the insurance policy described, and the approval by our shareholders of the issuance of the BioTime shares and warrants in the transaction and the amendment of BioTime's Articles of Incorporation to increase our authorized capital stock from 75,000,000 common shares and 1,000,000 preferred shares to 125,000,000 common shares and 2,000,000 preferred shares (the "Shareholder Proposals").

Indemnification

We and BAC have agreed to indemnify Geron from and against certain liabilities relating to (a) Geron's distribution of the BAC Series A common stock to Geron's stockholders, (b) BAC's distribution of the Contribution Warrants to the holders of BAC Series A common stock and (c) any distribution of securities by BAC to the holders of the BAC Series A common stock within one year following the closing under the Asset Contribution Agreement, from the date of the first effective date of either of the Registration Statements through the fifth anniversary of the earliest to occur of the date on which all of the Contribution Warrants have either expired, or been exercised, cancelled or sold. We have also agreed to use our reasonable best efforts to obtain at our cost and expense prior to the closing under the Asset Contribution Agreement a policy of insurance to provide $10 million in coverage for our indemnification obligations for a period of five years after the earliest effective date of either of the Registration Statements.

BioTime and BAC have also agreed to indemnify Geron, and Geron has agreed to indemnify BioTime and BAC, from and against certain expenses, losses, and liabilities arising from, among other things, breaches of the indemnifying party's representations, warranties and covenants under the Asset Contribution Agreement. The maximum damages that may be recovered by either party for a loss under this indemnification related to representations, warranties and covenants, with limited exceptions, is limited to $2 million.

Termination of the Asset Contribution Agreement

Each of the parties has certain rights to terminate the Asset Contribution Agreement in certain circumstances. Among other things, each of Geron and BioTime is permitted to terminate the Asset Contribution Agreement in the event our shareholders fail to approve the Shareholder Proposals and Geron is permitted to terminate the Asset Contribution Agreement if our board of directors withdraws its recommendation to our shareholders to approve the Shareholder Proposals or if any of our directors who has signed a Support Agreement (described below) materially breaches his Support Agreement, in each case subject to certain exceptions set forth in the Asset Contribution Agreement.

Termination Fee

We will be required to pay Geron a termination fee of $1.8 million in certain circumstances if the Asset Contribution Agreement is terminated and (a) our board of directors has withdrawn its recommendation to our shareholders to approve the Shareholder Proposals, (b) any of the directors who signed a Support Agreement has materially breached his Support Agreement, or (c) our shareholders failed to approve the Shareholder Proposals.

Expense Reimbursement

If the closing under the Asset Contribution Agreement occurs, we are required to pay to Geron, as partial reimbursement of fees and expenses incurred by Geron's advisors, $750,000, either in cash or, at our election, by issuing to Geron additional BioTime common shares, or a combination of cash and common shares. Any common shares that we decide to issue for that purpose would be valued based on the volume-weighted average per share closing price of our common shares for the twenty consecutive trading days immediately prior to the closing under the Asset Contribution Agreement. If we choose to issue BioTime common shares, we anticipate that we would issue no more than 187,500 common shares for this purpose.

Royalty and Sublicense Agreements

Concurrently with the closing under the Asset Contribution Agreement, BAC and Geron will enter into a Royalty Agreement pursuant to which BAC will pay to Geron royalties on the sale of products that are developed and commercialized, if any, in reliance upon Geron patents contributed to BAC.

Geron will sublicense to BAC, on an exclusive, world-wide, basis, certain patents for the purpose of using telomerase as an antigen in the development of certain immunological therapy products. BAC will pay Geron licensing fees for the use of the sublicensed patents and a royalty on sales of products developed and commercialized in reliance upon the sublicensed patents, and BAC will agree to indemnify Geron, Geron's licensor, and certain other parties from certain liabilities.

Support Agreements and Indemnification Agreements

Three of our directors, Neal C. Bradsher, Alfred D. Kingsley, and Michael D. West, an investment partnership managed by Mr. Bradsher as general partner, and an investment partnership and corporation managed and controlled by Mr. Kingsley, have entered into Support Agreements for the benefit of Geron under which they have agreed to vote all of the BioTime common shares that they own on the record date of the BioTime shareholders meeting and continue to own on the date of that meeting in favor of the Shareholder Proposals. They have also agreed to vote their BioTime common shares against (a) any extraordinary corporate transaction, such as a merger, consolidation or other business combination, involving us or any of our affiliates, which is intended, or could reasonably be expected, to materially delay or prevent the consummation of the asset contribution transaction; (b) any dissolution or liquidation of BioTime; and (c) any other action which is intended, or could reasonably be expected, to materially delay or prevent the consummation of the asset contribution transaction. The Support Agreements will terminate on the earlier of the closing under the Asset Contribution Agreement and termination of the Asset Contribution Agreement. As of January 31, 2013, the BioTime common shares subject to the Support Agreements represented in the aggregate approximately 33.4% of the outstanding BioTime common shares, but the number of shares subject to the Support Agreements may fluctuate as the BioTime shareholders that entered into Support Agreements have certain rights to transfer shares covered by those Support Agreements.

We have entered into Indemnification Agreements with Mr. Bradsher and an investment partnership managed by Mr. Bradsher, and with Mr. Kingsley and an investment partnership and corporation managed and controlled by Mr. Kingsley, under which we will indemnify them from any liabilities and related expenses arising from the performance of their agreements under their respective Support Agreements. Our indemnification obligation does not apply to any liabilities or expenses arising from a breach of their Support Agreements. The Indemnification Agreements were approved by our board of directors, and by our Audit Committee pursuant to our Related Persons Transaction Policy

Licensed Stem Cell Technology and Stem Cell Product Development Agreements

We have obtained the right to use stem cell technology that we believe has great potential in our product development efforts, and that may be useful to other companies that are engaged in the research and development of stem cell products for human therapeutic and diagnostic use.

Wisconsin Alumni Research Foundation

We have entered into a Commercial License and Option Agreement with Wisconsin Alumni Research Foundation ("WARF"). The WARF license permits us and our subsidiaries to use certain patented and patent pending technology belonging to WARF, as well as certain stem cell materials, for research and development purposes, and for the production and marketing of "research products" and "related products." "Research products" are products used as research tools, including in drug discovery and development. "Related products" are products other than research products, diagnostic products, or therapeutic products. "Diagnostic products" are products or services used in the diagnosis, prognosis, screening or detection of disease in humans. "Therapeutic products" are products or services used in the treatment of disease in humans.

Under the WARF license agreement, we paid WARF a license fee of $225,000 in cash and $70,000 worth of our common shares. A maintenance fee of $25,000 will be due annually on March 2 of each year during the term of the WARF license beginning March 2, 2010. We also paid WARF $25,000 toward reimbursement of the costs associated with preparing, filing, and maintaining the licensed WARF patents.

We will pay WARF royalties on the sale of products and services under the WARF license. The royalty will be 4% on the sale of research products and 2% on the sale of related products. The royalty is payable on sales by us or by any sublicensee. The royalty rate is subject to certain reductions if we also become obligated to pay royalties to a third party in order to sell a product.

We have an option to negotiate with WARF to obtain a license to manufacture and market therapeutic products, excluding products in certain fields of use. The issuance of a license for therapeutic products would depend upon our submission and WARF's acceptance of a product development plan, and our reaching agreement with WARF on the commercial terms of the license such as a license fee, royalties, patent reimbursement fees, and other contractual matters.

The WARF license shall remain in effect until the expiration of the latest expiration date of the licensed patents. However, we may terminate the WARF license prior to the expiration date by giving WARF at least 90 days written notice, and WARF may terminate the WARF license if we fail to make any payment to WARF, fail to submit any required report to WARF, or commit any breach of any other covenant in the WARF license, and we fail to remedy the breach or default within 90 days after written notice from WARF. The WARF license may also be terminated by WARF if we commit any act of bankruptcy, become insolvent, are unable to pay our debts as they become due, file a petition under any bankruptcy or insolvency act, or have any such petition filed against us which is not dismissed within 60 days, or if we offer our creditors any component of the patents or materials covered by the WARF license.

ACTCellerate™ Technology

ReCyte Therapeutics has entered into a license agreement with ACT that was subsequently assigned to us under which we acquired exclusive world-wide rights to use ACT's *ACTCellerate™* technology for methods to accelerate the isolation of novel cell strains from pluripotent stem cells. The licensed rights include pending patent applications, know-how, and existing cells and cell lines developed using the technology. We market *PureStem™* cells which were developed using *ACTCellerate™* technology.

The licensed technology is designed to provide a large-scale and reproducible method of isolating clonally purified hEPC , many of which may be capable of extended propagation *in vitro*. Initial testing suggests that the technology may be used to isolate at least 200 distinct clones that contain many previously uncharacterized cell types derived from all germ layers that display diverse embryo- and site-specific homeobox gene expression. Despite the expression of many oncofetal genes, none of the hEPC tested led to tumor formation when transplanted into immunocompromised mice. The cells studied appear to have a finite replicative lifespan but have longer telomeres than most fetal- or adult-derived cells, which may facilitate their use in the manufacture of purified lineages for research and human therapy. Information concerning the technology was published in the May 2008 edition of the journal *Regenerative Medicine*.

BioTime has the right to use the licensed technology and cell lines for research purpose and for the development of therapeutic and diagnostic products for human and veterinary use, and also has the right to grant sublicenses.

We paid ACT a $250,000 license fee and will pay an 8% royalty on sales of products, services, and processes that utilize the licensed technology. Once a total of $1,000,000 of royalties has been paid, no further royalties will be due.

ACT may reacquire royalty-free, worldwide licenses to use the technology for RPE cells, hemangioblasts, and myocardial cells, on an exclusive basis, and for hepatocytes, on a non-exclusive basis, for human therapeutic use. ACT will pay us $5,000 for each license that it elects to reacquire.

The term of the licenses from ACT expire on the later of July 9, 2028 or the expiration of the last to expire of the licensed patents. The patent expiration dates cannot be presently determined with certainty because the patents are pending. ACT may terminate the license agreement if we commit a breach or default in the performance of our obligations under the agreement and fail to cure the breach or default within the permitted cure periods. BioTime has the right to terminate the license agreement at any time by giving ACT three months prior notice and paying all amounts due ACT through the effective date of the termination.

iPS Cell Technology

ReCyte Therapeutics has entered into a license agreement and a sublicense agreement with ACT under which it acquired worldwide rights to use an array of ACT technology and technology licensed by ACT from affiliates of Kirin Pharma Company, Ltd. ("Kirin"). The ACT license and Kirin sublicense permit the commercialization of products in human therapeutic and diagnostic product markets.

The licensed technology covers iPS methods to transform cells of the human body, such as skin cells, into an embryonic state in which the cells will be pluripotent. Because iPS technology does not involve human embryos or egg cells, and classical cloning techniques are not employed, the use of iPS technology may eliminate some ethical concerns that have been raised in connection with the procurement and use of hES cells in scientific research and product development.

The portfolio of licensed patents and patent applications covers methods to produce iPS cells that do not carry viral vectors or added genes. Other iPS cell technology currently being practiced by other researchers utilizes viruses and genes that are likely incompatible with human therapeutic uses. We believe that technologies that facilitate the reprogramming of human cells to iPS cells without using viruses could be advantageous in the development of human stem cell products for use in medicine.

The Kirin sublicense covers patent application for methods for cloning mammals using reprogrammed donor chromatin or donor cells and methods for altering cell fate. These patent applications are related to technology to alter the state of a cell by exposing the cell's DNA to the cytoplasm of another reprogramming cell with different properties. ReCyte Therapeutics may use this licensed technology for all human therapeutic and diagnostic applications.

A second series of patent applications licensed non-exclusively from ACT includes technologies for:

- the use of reprogramming cells that over-express RNAs for the genes *OCT4* , *SOX2* , *NANOG* , and *MYC* , and other factors known to be useful in iPS technology;
- methods of resetting cell lifespan by extending the length of telomeres;
- the use of the cytoplasm of undifferentiated cells to reprogram human cells;
- the use of a cell bank of hemizygous O-cells;
- methods of screening for differentiation agents; and
- the use of modified stem cell-derived endothelial cells to disrupt tumor angiogenesis.

ReCyte Therapeutics may use this technology in commercializing the patents licensed under the Kirin sublicense.

The ACT license also includes patent applications for other uses. One licensed patent application covers a method of differentiation of morula or inner cell mass cells and a method of making lineage-defective embryonic stem cells. That technology can be used in producing hEPCs without the utilization of hES cell lines. Another licensed patent application covers novel culture systems for *ex vivo* development that contains technology for utilizing avian cells in the production of stem cell products free of viruses and bacteria.

ACT iPS Cell License Provisions

Under the ACT license for iPS cell technology, we paid ACT a $200,000 license fee and ReCyte Therapeutics will pay a 5% royalty on sales of products, services, and processes that utilize the licensed technology, and a 20% royalty on any fees or other payments, other than equity investments, research and development costs, and loans and royalties, received by us from sublicensing the ACT technology to third parties. Once a total of $600,000 of royalties has been paid, no further royalties will be due.

We may use the licensed technology and cell lines for research purposes and for the development of therapeutic and diagnostic products for human and veterinary use, excluding (a) human and non-human animal cells for commercial research use, including small-molecule and other drug testing and basic research; and (b) human cells for therapeutic and diagnostic use in the treatment of human diabetes, liver diseases, retinal diseases and retinal degenerative diseases, other than applications involving the use of cells in the treatment of tumors where the primary use of the cells is the destruction or reduction of tumors and does not involve regeneration of tissue or organ function. The exclusions from the scope of permitted uses under the ACT license will lapse if ACT's license with a third party terminates or if the third party no longer has an exclusive license from ACT for those uses. Therefore, our cell lines marketed for research use are produced from hES cell lines (and not from iPS cells). In the therapeutic arena, ReCyte Therapeutics' use of the licensed iPS cell technology will be for applications such as its blood and vascular products.

The license to use some of the ACT iPS technology is non-exclusive, and is limited to use in conjunction with the technology sublicensed from ACT under the Kirin sublicense, and may not be sublicensed to third parties other than subsidiaries and other affiliated entities. ReCyte Therapeutics has the right to grant sublicenses to the other licensed ACT technology.

ReCyte Therapeutics will have the right to prosecute the patent applications and to enforce all patents, at our own expense, except that ACT is responsible for prosecuting patent applications for the non-exclusively licensed technology at its own expense. We will have the right to patent any new inventions arising from the use of the licensed patents and technology.

ReCyte Therapeutics will indemnify ACT for any products liability claims arising from products made by us and our sublicensees.

The term of the licenses from ACT expire on the later of August 14, 2028 or the expiration of the last to expire of the licensed patents. The patent expiration dates cannot be presently determined with certainty because certain patents are pending, but the latest expiration date of the licensed patents that have issued is 2025. ACT may terminate the license agreement if ReCyte Therapeutics commits a breach or default in the performance of its obligations under the agreement and fail to cure the breach or default within the permitted cure periods. ReCyte Therapeutics has the right to terminate the license agreement at any time by giving ACT three months prior notice and paying all amounts due ACT through the effective date of the termination.

Kirin Sublicense Provisions

The technology licensed from Kirin relates to methods of reprogramming human and animal cells. Under the Kirin sublicense, we paid ACT a $50,000 license fee and ReCyte Therapeutics will pay a 3.5% royalty on sales of products, services, and processes that utilize the licensed ACT technology, and 20% of any fees or other payments, other than equity investments, research and development costs, and loans and royalties that it may receive from sublicensing the Kirin technology to third parties. ReCyte Therapeutics will also pay to ACT or to an affiliate of Kirin, annually, the amount, if any, by which royalties payable by ACT under its license agreement with Kirin are less than the $50,000 annual minimum royalty due. Those payments will be credited against other royalties payable to ACT under the Kirin sublicense.

ReCyte Therapeutics may use the sublicensed technology for the development of therapeutic and diagnostic human cell products, including both products made, in whole or in part, of human cells, and products made from human cells. ReCyte Therapeutics has the right to grant further sublicenses.

ReCyte Therapeutics will indemnify ACT for any products liability claims arising from products made by it and its sublicensees. The licenses will expire upon the expiration of the last to expire of the licensed patents, or May 9, 2016 if no patents are issued. The patent expiration dates cannot be presently determined with certainty because certain patents are pending, but the latest expiration date of the licensed patents that have issued is 2025. ACT may terminate the license agreement if ReCyte Therapeutics commits a breach or default in the performance of its obligations under the agreement and fail to cure the breach or default within the permitted cure periods. ReCyte Therapeutics has the right to terminate the license agreement at any time by giving ACT three months prior notice and paying all amounts due ACT through the effective date of the termination.

HyStem® Hydrogel Technology

Through our acquisition of Glycosan, we acquired a license from the University of Utah to use certain patents in the production and sale of hydrogel products. During August 2012, we entered into an amendment to our License Agreement with the University of Utah that expanded the field of use for which we are licensed to produce and market products covered by the core patents underlying our *HyStem®* technology. We now have a worldwide license for all uses, with the exception of veterinary medicine and animal health. Our licensed field of use includes, but is not limited to, all human pharmaceutical and medical device applications, all tissue engineering and regenerative medicine uses, and all research applications. Previously, our license in the United States was not exclusive and the fields of use of the technology permitted by the license were not as broad.

Under the License Agreement, we will pay a 3% royalty on sales of products and services performed that utilize the licensed patents. Commencing in 2014, we will be obligated to pay minimum royalties to the extent that actual royalties on products sales and services utilizing the patents are less than the minimum royalty amount. The minimum royalty amounts are $22,500 in 2014, and $30,000 each year thereafter during the term of the License Agreement. We will also pay the University of Utah 30% of any sublicense fees or royalties received under any sublicense of the licensed patents.

We will pay the University of Utah $5,000 upon the issuance of each of the first five licensed patents issued in the U.S., subject to reduction to $2,500 for any patent that the University has licensed to two or more other licensees for different uses. We will also pay a $225,000 milestone fee within six months after the first sale of a “tissue engineered product” that utilizes a licensed patent. A tissue engineered product is defined as living human tissues or cells on a polymer platform, created at a place other than the point-of-care facility, for transplantation into a human patient.

We agreed to pay and an additional license fee for the additional rights licensed to us during August 2012, and the costs of filing, prosecuting, enforcing and maintaining the patents exclusively licensed to us, and a portion of those costs for patents that have been licensed to a third party for a different field of use.

Commencing in five years, we may, under certain circumstances, be obligated to sublicense to one or more third parties, on commercially reasonable terms to be negotiated between us and each prospective sublicensee, or re-grant to the University, rights to use the licensed patents for products and services outside the general industry in which we or any of our affiliates or sublicensees is then developing or commercializing, or has plans to develop or commercialize, a product using the licensed technology.

Stem Cell Agreement with Reproductive Genetics Institute

In 2009, we entered into a Stem Cell Agreement with RGI pursuant to which we obtained the non-exclusive right to acquire RGI’s proprietary stem cell lines. The Stem Cell Agreement grants us rights to market new hES lines selected by us from 294 hES lines derived by RGI. We will initially select 10 RGI hES cell lines, and may add additional cell lines at our option. We will receive starting cultures of the cell lines we select, and will scale up those cell lines for resale as research products. Because our rights are non-exclusive, RGI will retain the right to market and use its stem cell lines for its own account. RGI is a leading fertility center that screens embryos for genetic disorders, such as cystic fibrosis and muscular dystrophy, prior to implantation. The RGI hES lines include both normal cells and 88 cell lines identified as carrying a host of inherited genetic disease genes, some of which we plan to sell as research products to universities and companies in the bioscience and pharmaceutical industries.

We will pay RGI a royalty in the amount of 7% of net sales of RGI-derived cells sold for research purposes such as the use of cells to test potential new drugs or diagnostic products. The Stem Cell Agreement requires us to sell the RGI cells for a minimum price of $7,500 per ampoule of cells. We also agreed to sell to RGI any cells that we derive from RGI stem cells at a price equal to 50% of the lowest price at which we sell those cells to third parties.

We will be marketing the acquired cells for research purposes only. However, the Stem Cell Agreement allows us and RGI to develop therapeutic or diagnostic uses of the cells, subject to approval by a joint steering committee composed of our officers and RGI officers. In the absence of an agreement by the steering committee for a different revenue-sharing arrangement, and provided that we are successful in developing and commercializing one or more of those products for therapeutic or diagnostic uses, we would pay RGI a royalty based on net sales of each product. The royalty rate would be 50% of net sales of the product, minus one-half of any other royalties required to be paid to third parties. None of the RGI cells have been approved by the FDA or any equivalent foreign regulatory agency for use in the treatment of disease, and we do not have any specific plans for the development of RGI stem cells for use in the treatment or diagnosis of disease in humans.

Our agreement with RGI is scheduled to terminate on December 31, 2039 but will be automatically extended for an additional ten years, unless we or RGI elect not to extend the term of the agreement. If the initial term of the agreement is extended for ten years, the extended term will be automatically extended for an additional period of ten years, unless we or RGI elect not to extend the term of the agreement for the additional period. RGI may terminate the agreement if we commit a breach or default in the performance of our obligations under the agreement and fail to cure the breach or default within the permitted cure periods. We have the right to terminate the agreement at any time by giving RGI 30-day prior notice and paying all royalties due with respect to the sale of cell products that occurred prior to the date of termination.

Sanford-Burnham Medical Research Institute

Through our acquisition of the assets of CTI, we acquired a royalty-bearing, exclusive, worldwide license from the Sanford-Burnham Medical Research Institute ("SBMRI") permitting us and OncoCyte to use certain patents pertaining to homing peptides for preclinical research investigations of cell therapy treatments, and to enhance cell therapy products for the treatment and prevention of disease and injury in conjunction with our own proprietary technology or that of a third party. We have the right to grant sublicenses with notice to SBMRI.

OncoCyte will pay SBMRI a royalty of 4% on the sale of pharmaceutical products, and 10% on the sale of any research-use products that we develop using or incorporating the licensed technology; and 20% of any payments we receive for sublicensing the patents to third parties. The royalties payable to SBMRI may be reduced by 50% if royalties or other fees must be paid to third parties in connection with the sale of any products. An annual license maintenance fee is payable each year during the term of the license, and after commercial sales of royalty bearing products commence, the annual fee will be credited towards our royalty payment obligations for the applicable year.

OncoCyte will reimburse SBMRI for its costs incurred in filing, prosecuting, and maintaining patent protection, subject to our approval of the costs. The reimbursement rate ranges from 33-100% of the prosecution and maintenance costs. OncoCyte has assumed in house primary responsibility for the prosecution of some of the SBMRI licensed patents. OncoCyte will indemnify SBMRI against liabilities that may arise from our use of the licensed patents in the development, manufacture, and sale of products, including any product liability and similar claims that may arise from the use of any therapeutic products that we develop using the SBMRI patents.

The license will terminate on a product-by-product and country-by-country basis, when the last-to-expire patent expires. The patent expiration dates cannot be presently determined with certainty because certain patents are pending, but the latest expiration date of the licensed patents that have issued is 2025. OncoCyte may terminate the license agreement by giving SBMRI 60-day notice. SBMRI may terminate the license agreement if OncoCyte fails to make license or royalty payments or to perform our reporting obligations after applicable cure periods.

Hadasit Research and License Agreement

Cell Cure Neurosciences has entered into an Amended and Restated Research and License Agreement under which it received an exclusive license to use certain of Hadasit's patented technologies for the development and commercialization for hES cell-derived cell replacement therapies for retinal degenerative diseases. Cell Cure Neurosciences paid Hadasit 249,058 New Israeli Shekels as a reimbursement for patent expenses incurred by Hadasit, and pays Hadasit quarterly fees for research and product development services under a related Product Development Agreement.

If Teva exercises its option to license *OpRegen*™ or *OpRegen-Plus*™, Cell Cure Neurosciences will pay Hadasit 30% of all payments made by Teva to Cell Cure Neurosciences under the Teva License Option Agreement, other than payments for research, reimbursements of patent expenses, loans or equity investments.

If Teva does not exercise its option and Cell Cure Neurosciences instead commercializes *OpRegen*™ or *OpRegen-Plus*™ itself or sublicenses the Hadasit patents to a third party for the completion of development or commercialization of *OpRegen*™ or *OpRegen-Plus*™, Cell Cure Neurosciences will pay Hadasit a 5% royalty on sales of products that utilize the licensed technology. Cell Cure Neurosciences will also pay sublicensing fees ranging from 10% to 30% of any payments Cell Cure Neurosciences receives from sublicensing the Hadasit patents to companies other than Teva. Commencing in January 2017, Hadasit will be entitled to receive an annual minimum royalty payment of $100,000 that will be credited toward the payment of royalties and sublicense fees otherwise payable to Hadasit during the calendar year. If Cell Cure Neurosciences or a sublicensee other than Teva paid royalties during the previous year, Cell Cure Neurosciences may defer making the minimum royalty payment until December and will be obligated to make the minimum annual payment to the extent that royalties and sublicensing fee payments made during that year are less than $100,000.

If Teva does not exercise its option under the Teva License Option Agreement and instead Cell Cure Neurosciences or a sublicensee other than Teva conducts clinical trials of *OpRegen*™ or *OpRegen-Plus*™, Hadasit will be entitled to receive certain payments from Cell Cure Neurosciences upon the first attainment of certain clinical trial milestones in the process of seeking regulatory approval to market a product developed by Cell Cure Neurosciences using the licensed patents. Hadasit will receive $250,000 upon the enrollment of patients in the first Phase I clinical trial, $250,000 upon the submission of Phase II clinical trial data to a regulatory agency as part of the approval process, and $1 million upon the enrollment of the first patient in the first Phase III clinical trial.

The Hadasit license agreement will automatically expire on a country-by-country and product-by-product basis upon the later of the expiration of all of the licensed patents or 15 years following the first sale of a product developed using a licensed patent. The patent expiration dates cannot be presently determined with certainty because the patents are pending. After expiration of the license agreement, Cell Cure Neurosciences will have the right to exploit the Hadasit licensed patents without having to pay Hadasit any royalties or sublicensing fees. Either party may terminate the license agreement if the other party commits a breach or default in the performance of its obligations under the agreement and fails to cure the breach or default within the permitted cure periods.

Cornell University

During August, 2011, we entered into a License Agreement with Cornell University for the worldwide development and commercialization of technology developed at Weill Cornell Medical College for the differentiation of hES cells into vascular endothelial cells. The technology may provide an improved means of generating vascular endothelial cells on an industrial scale, and will be utilized by us in diverse products, including those under development at our subsidiary ReCyte Therapeutics to treat age-related vascular disease, and products being developed at our subsidiary OncoCyte targeting the delivery of toxic payloads to cancerous tumors.

Our license to use the technology and patent rights is worldwide and exclusive and permits us to use the licensed technology and patents rights for the fields of cell therapy for age- and diabetes-related vascular diseases and cancer therapy. The license also covers (i) products utilizing human vascular or vascular forming cells for the purpose of enhancing the viability of the graft of other human cells, and (ii) cell-based research products. We also have a non-exclusive right to use any related technology provided by Cornell within the same fields of use, and non-exclusive rights with respect to any non-cell-based products for the research market not covered by the licensed patent rights.

We have the right to permit our subsidiaries and other affiliates to use the licensed patent rights and technology, and we have the right to grant sublicenses to others.

Cornell will be entitled to receive an initial license fee and annual license maintenance fees. The obligation to pay annual license maintenance fees will end when the first human therapeutic license product is sold by us or by any of our affiliates or sublicensees. A “licensed product” includes any service, composition or product that uses the licensed technology, or is claimed in the licensed patent rights, or that is produced or enabled by any licensed method, or the manufacture, use, sale, offer for sale, or importation of which would constitute an infringement, an inducement to infringe, or contributory infringement of any pending or issued claim within the patent rights licensed to us. A “licensed method” means any method that uses the licensed technology, or is claimed in the patent rights licensed to us, the use of which would constitute an infringement, an inducement to infringe, or contributory infringement of any pending or issued claim within the patent rights licensed to us.

We will pay Cornell a milestone payment upon the achievement of a research product sales milestone amount, and we will make milestone payments upon the attainment of certain FDA approval milestones, including (i) the first Phase II clinical trial dosing of a human therapeutic licensed product, (ii) the first Phase III clinical trial dosing of a human therapeutic licensed product, (iii) FDA approval of first human therapeutic licensed product for age-related vascular disease, and (iv) FDA approval of the first human therapeutic licensed product for cancer.

We will pay Cornell royalties on sales of licensed products by ourselves and our affiliates and sublicensees, and we will share with Cornell a portion of any cash payments, other than royalties, that we receive for the grant of sublicenses to non-affiliates. We will also reimburse Cornell for costs related to the patent applications and any patents that may issue that are covered by our license.

We will provide Cornell with periodic reports of progress made in our research and development and product commercialization programs, and in those programs conducted by our affiliates and sublicensees, using the licensed patents and technology. We and our affiliates and sublicensees will be required to keep accurate records of the use, manufacture and sale of licensed products, and of sublicense fees received. Cornell has the right to audit those records that we and our affiliates maintain.

The license will expire on the later of (i) the expiration date of the longest-lived licensed patent, or (ii) on a country-by-country basis, on the twenty-first anniversary of the first commercial sale of a licensed product. We have the right to terminate the License Agreement at any time and for any reason upon ninety (90) days written notice to Cornell. Cornell may terminate our license if we fail to perform, or if we violate, any term of the License Agreement, and we fail to cure that default within thirty (30) days after written notice from Cornell.

Cornell also may terminate the license or convert the exclusive license to a non-exclusive license if we fail to meet any of the following requirements: (i) diligently proceed with the development, manufacture and sale of licensed products; (ii) annually spend certain specified dollar amounts for the development of licensed products; (iii) submit an investigational new drug application covering at least one licensed product to the FDA within eight (8) years after the effective date of the License Agreement; (iv) initiate preclinical toxicology studies for at least one licensed product within six (6) years after the effective date of the License Agreement; (v) market at least one therapeutic licensed product in the U.S. within twelve (12) months after receiving regulatory approval to market the licensed product; or (vi) market at least one cell-based licensed product for the research market in the U.S. within twelve (12) months after the effective date of the License Agreement. We may fulfill the obligations described in (i) through (vi) through our own efforts or through the efforts of our affiliates and sublicensees.

Termination of the License Agreement by us or by Cornell or upon expiration will not relieve us of our obligations the make payments of fees owed at the time of termination, and certain provisions of the License Agreement, including the indemnification and confidentiality provisions, will survive termination. We may continue to sell all previously made or partially made licensed product for a period of one hundred and twenty (120) days after the License Agreement terminates, provided that the reporting and royalty payment provisions of the License Agreement will continue to apply to those sales.

We have agreed to indemnify Cornell; Cornell Research Foundation, Inc.; Howard Hughes Medical Institute; and their officers, trustees, employees, and agents, the sponsors of the research that led to the licensed patent rights; and the inventors and their employers, against any and all claims, suits, losses, damage, costs, fees, and expenses resulting from or arising out of exercise of the licenses and any sublicenses under the License Agreement. The indemnification will include, but not be limited to, patent infringement and product liability. We have also agreement to provide certain liability insurance coverage for Cornell and Howard Hughes Medical Institute.

Cornell and Howard Hughes Medical Institute will retain the right to use the licensed technology and patent rights for their own educational and research purposes. Cornell may also permit other nonprofit institutions to use the technology and patent rights for educational and research purposes.

In conjunction with the License Agreement, we also entered into a Sponsored Research Agreement under which scientists at Weill Cornell Medical College, led by Sina Y. Rabbany, PhD, will engage in research with the goals of (1) verifying the ability of progenitor cells, derived by ReCyte Therapeutics, to generate stable populations of vascular endothelial cells; (2) testing the functionality and transplantability of the vascular endothelial cells in animal models to see if the transplanted cells generate new vascular tissue; and (3) using *HyStem*® hydrogels and other materials as scaffolds for the three-dimensional propagation of vascular endothelial cells into vascular tissues suitable for transplantation. The Sponsored Research Agreement will have a term of three years, but we or Cornell can elect to terminate the agreement earlier by giving the other party thirty (30) days written notice.

If the researchers make any patentable discoveries or inventions in the course of the sponsored research program, we will have an option to negotiate an exclusive, royalty-bearing license to use the invention. If we do license the invention, Cornell would retain a right to use it on a non-exclusive royalty-free basis for its own internal research and teaching purposes.

USCN Life Science, Inc.

During December 2011, we entered into two agreements with USCN Life Science, Inc. (“USCN”), a Chinese company. One agreement is a License Option Agreement that grants us the right, but not the obligation, to license from USCN certain technology and any related patents that may issue, and certain hybridoma cell lines for the purpose of deriving new products and technologies for use in diagnostic procedures and in therapeutics for the treatment of disease, as well as for products intended for research use only. A hybridoma cell line is an expandable culture of cells engineered to secrete a distinct antibody known as a monoclonal antibody that is directed to a specific protein. BioTime and OncoCyte scientists tested certain antibodies distributed by USCN and found them to be effective as components of *PanC-Dx*™. The other agreement we entered into with USCN is an assay kit Supply Agreement under which we will purchase a wide array of assay kits designed for enzyme-linked immunosorbent assay (ELISA) and chemiluminescent immuno assay (CLIA) directed to the stem cell research community and for research use only.

Under the License Option Agreement we have the option of acquiring world-wide licenses to technology and certain hybridoma cell lines, and any patents related to the licensed technology and hybridoma cell lines, that may issue, for the purpose of deriving new products and technologies for use in diagnostic procedures and in therapeutics for the treatment of disease.

We paid USCN a license fee which will be credited toward the license fee payable if we exercise our option to license at least one hybridoma cell line. We may exercise our option to license additional hybridomas and related technology and patent rights by paying an additional license fee per hybridoma cell line. We will pay to USCN a royalty calculated as a percent of net sales received by us and our affiliates for all licensed products sold, performed, or leased by us or any of our affiliates. As defined in the License Option Agreement, Net Sales means revenues received from the manufacture, use or sale or other disposition of licensed products, less the total of all (a) discounts allowed in amounts customary in the trade; (b) sales tariffs, duties and/or taxes imposed on the licensed products; or (c) outbound transportation prepaid or allowed; and (d) amounts allowed or credited on returns. Net Sales does not include revenues from the sale or other disposition of licensed products to (i) any of our affiliates, (ii) to any of our sublicensees or any sublicensees of our affiliates, or (iii) to any affiliate of our or our affiliates’ sublicensees. No multiple royalties will be payable on the basis that any licensed product is covered by more than one licensed patent or patent application. “Licensed products” means any product, service and/or process that constitutes, incorporates or utilizes, wholly or in part, any of the technology, patent rights, or hybridomas licensed by USCN under the agreement. If a royalty bearing license to use a third party’s patent is required to eliminate or avoid an infringement or claim of infringement or to settle any lawsuit or other proceeding alleging patent infringement from the use of USCN’s patents or technology or the use, manufacture, production, distribution, or sale of the licensed hybridoma lines or a licensed product, then we and any of our affiliates and any sublicensees may deduct the royalties paid to the third party from the royalties payable to USCN, provided that the amount of the deduction may not reduce the royalty payable to USCN by more than 50%.

We have agreed to indemnify, defend and hold harmless USCN and USCN’s affiliates, successors, assigns, agents, officers, directors, shareholders and employees against all liabilities of any kind whatsoever, including legal expenses and reasonable attorneys’ fees, arising out of the death of or injury to any person or persons or out of any damage to property resulting from the production, manufacture, sale, use, lease, performance, consumption or advertisement of licensed products or arising from any of our obligations, acts or omissions, or from a breach of any of our representations or warranties, under the License Option Agreement, except for claims that result from (a) the willful misconduct or gross negligence of USCN or any other indemnitee, and (b) claims alleging that the use of any of the patent rights, technology or hybridomas licensed to us, when used within our permitted field of use, infringes upon any patent, trade secret, or moral right of any third party.

USCN has agreed to indemnify, defend and hold harmless us and our affiliates, and our respective successors, assigns, agents, officers, directors, shareholders and employees against all liabilities of any kind whatsoever, including legal expenses and reasonable attorneys’ fees, arising out of any claim, demand, lawsuit or other proceeding alleging that the use of any patent rights, technology, or hybridoma licensed to us or to any of our affiliates or any sublicensee within the permitted field of use infringes any patent, trade secret, or moral right of any third party.

The License Option Agreement will terminate on its fifth anniversary if the option has not been exercised on or before that date. If we exercise our option, the agreement will terminate upon written notice from us to USCN that we, our affiliates, and all sublicensees have permanently discontinued the use of the licensed technology, patent rights, hybridomas and licensed products.

We may terminate the agreement at any time on sixty (60) days prior written notice to USCN, and upon payment of all amounts due USCN through the effective date of the termination. USCN may terminate the agreement at any time if we breach or default in the performance of any of our obligations and the breach or default is not cured within thirty (30) days after a written request from USCN to remedy the breach or default, or if the breach or default cannot be cured within that thirty (30) day period, we fail within that thirty (30) day period to proceed with reasonable promptness thereafter to cure the breach. Termination of the License Option Agreement will not release a party from any obligation that matured prior to the effective date of the termination.

Under the Supply Agreement, USCN has agreed to sell us certain assay test kits. We plan to resell the kits through our subsidiary LifeMap Sciences via our new online database slated for launch in 2012. Our rights to purchase and resell the assay kits is "co-exclusive," meaning that USCN and its affiliates retain the right to offer, sell, and distribute the kits, and to sell the kits to other third-party distributors. We may sell the kits to our customers for research purposes only, and not for the treatment or diagnosis of any disease, injury, or physical disorder in humans, or in any human clinical trial or other clinical use. We and our customers will not have license or other rights to manufacture or produce any of the kits.

The initial term of the Supply Agreement is five years. The Supply Agreement will automatically renew for successive one year periods, unless either party provides written notice to the other of its desire not to continue the agreement.

We may terminate the Supply Agreement at any time, for any reason or no reason at all, upon sixty (60) days written notice to USCN. USCN may terminate the Supply Agreement if we breach or default in the performance of any of our obligations and the breach or default is not cured within thirty (30) days after a written request from USCN to remedy the breach or default, or if the breach or default cannot be cured within the thirty (30) day period, we fail within that thirty (30) day period to proceed with reasonable promptness to cure the breach. Either party may terminate the Supply Agreement if the other party becomes insolvent or enters into any arrangement or composition with creditors, or makes an assignment for the benefit of creditors; if there is a dissolution, liquidation or winding up of the other party's business; or if a trustee in bankruptcy is appointed for the assets of the other Party. The termination or expiration of the Supply Agreement will not act as a waiver of any breach of the agreement and will not release either party for any liability or obligation incurred under the agreement through the expiration or termination date.

Upon termination of the Supply Agreement, USCN shall have the right, but not the obligation, to repurchase all assay kits that we and our affiliates have remaining in inventory, at the original invoiced cost, plus all costs of shipping, insurance, duties, and taxes incurred in connection with the return shipment. If USCN does not elect to repurchase unsold inventory, we and our affiliates may continue to sell the remaining inventory.

Research and Development Strategy

A significant part of our activities is devoted to research and development, focused primarily on the development of stem cell products and technology. During 2012, 2011, and 2010, we spent $18,116,688, $13,699,691, and $8,191,314, respectively, on research and development. While we utilize our own proprietary technology in both our plasma volume expander and stem cell research and development programs, we presently rely to a significant extent upon technology licensed from others in our stem cell research and development efforts. See "Licensed Stem Cell Technology and Stem Cell Product Development Agreements."

Our research and development strategy works in tandem with our commercial strategy of focusing on near-term commercial opportunities in the research product market, mid-term opportunities in the medical device market, as well as longer term opportunities to provide therapies for the treatment of age related degenerative diseases. In addition to developing our own technologies and products, we have obtained products and technologies through the acquisition of other companies and by licensing rights to use technologies and stem cell lines developed by other companies and universities. We believe that obtaining rights to these technologies, cell lines, and other products has jump-started our assemblage of an array of products for stem cell research and the research and development efforts of our subsidiaries

A portion of our near-term product development efforts in the regenerative medicine field are focused on the development and sale of advanced human stem cell products and technology that can be used by researchers at universities and other institutions, at companies in the bioscience and biopharmaceutical industries, and at other companies that provide research products to companies in those industries. These research products include the *GeneCards*®, *LifeMap Discovery*™, *MalaCards*, and *PanDaTox* database products marketed by LifeMap Sciences, *PureStem*™ hEPC and associated *ESpan*™ culture media, *HyStem*® hydrogels, and ESI's hES cell lines. By focusing a portion of our resources on research products and technology, we believe that we will be able to develop and commercialize revenue producing new products in less time and using less capital than is required to develop and commercialize therapeutic products and medical devices, whereby generating near term product revenues that would not be possible if we focused solely on therapeutic product development.

We are using *ACTCellerate*™ embryonic stem cell technology to produce hEPCs for sale under the *PureStem*™ brand and as cell types that can be used for therapeutical applications. These hEPCs are relatively easy to manufacture on a large scale and in a purified state, which may make it more advantageous to work with them than with hES or iPS cells. In our recently completed CIRM-funded research project we identified antibodies and other cell purification reagents that may aid the production of hEPCs and that can be used to develop pure therapeutic cells such as nerve, blood vessel, heart muscle, cartilage, and skin cells.

Renevia™ and *PanC-Dx*™ are part of our strategy to develop products with a mid-term revenue horizon. Our goals are to initiate clinical trials of *Renevia*™ in the EU in 2013 and for OncoCyte to obtain approval to market *PanC-Dx*™ in the EU during 2014.

Through our subsidiaries, OncoCyte, OrthoCyte, ReCyte Therapeutics, Cell Cure Neurosciences, and BAC, we will attempt to develop human stem cell products for therapeutic uses. We and ESI will license certain technology to the subsidiaries for their research and development programs. OncoCyte is utilizing hES cell technology to create genetically modified stem cells capable of homing to specific malignant tumors while carrying genes that can cause the destruction of the cancer cells. OrthoCyte is developing cellular therapeutics for the treatment of orthopedic degenerative diseases, disorders and injuries. ReCyte Therapeutics is developing therapeutic products for cardiovascular and blood diseases and disorders. Cell Cure Neurosciences is developing therapeutic products for retinal and neurological degenerative diseases and disorders. BAC expects to acquire Geron's former hES cell programs included oligodendrocyte progenitor cells for central nervous system disorders, cardiomyocytes for heart disease, pancreatic islet cells for diabetes, dendritic cells as an immunotherapy vehicle, and chondrocytes for cartilage repair. BAC may pursue the development of therapeutic products from some or all of these cell types, depending upon a number of factors, including the expected cost of development, sufficiency of financing, the state of development of the technology acquired, regulatory considerations, anticipated market size, and competition from other companies in the applicable fields.

During November 2010, we signed an agreement with CIRM to make five research-grade and GMP-compliant hES cell lines available to CIRM-funded and California-based researchers. During December 2010, the University of California system signed an agreement under which the universities in the system may acquire hES cell lines under the same terms of our agreement with CIRM. We believe that making these GMP-grade cell lines available may streamline the translation of basic science to human therapies. If the users of our cell lines eventually sign definitive license agreements with our permission to use those cell lines in commercial products, we will receive a royalty on net sales of their products, without the need on our part to fund any of their research, development, and clinical trial costs, or the costs of producing and marketing the new products.

We may also derive new stem cell lines, and we are working on the development of new products derived from human stem cells such as *ESpy*® cell lines, which will be derivatives of hES cells that will emit beacons of light. The light-emitting property of the *ESpy*® cells will allow researchers to track the location and distribution of the cells in both *in vitro* and *in vivo* studies.

We are also working to develop new growth and differentiation factors that will permit researchers to manufacture specific cell types from embryonic stem cells, and purification tools helpful to researchers involved in the quality control of products used in the field of regenerative medicine.

Plasma Volume Expanders and Related Products

Our business was initially focused on blood plasma volume expanders and related technology for use in surgery, emergency trauma treatment, and other applications. Our first product, *Hextend*®, is a physiologically balanced blood plasma volume expander used for the treatment of hypovolemia, a condition caused by low blood volume, often due to blood loss during surgery or injury. *Hextend*® maintains circulatory system fluid volume and blood pressure and helps sustain vital organs during surgery. *Hextend*®, approved for use in major surgery, is the only blood plasma volume expander that contains lactate, multiple electrolytes, glucose, and a medically approved form of starch called hetastarch. *Hextend*® is sterile and thus its use avoids the risk of infection. Health insurance reimbursements and HMO coverage now include the cost of *Hextend*® used in surgical procedures.

We were also developing another blood volume replacement product, *PentaLyte*®. It, like *Hextend*®, has been formulated to maintain the patient's tissue and organ function by sustaining the patient's fluid volume and physiological balance. We have completed a Phase II clinical trial of *PentaLyte*®, in which it was used to treat hypovolemia in cardiac surgery. Our ability to commence and complete additional clinical studies of *PentaLyte*® depends on licensing and development arrangements with a pharmaceutical company capable of manufacturing and marketing *PentaLyte*®. We are not actively working on *PentaLyte*® and we will need to find a licensee or co-developer to further develop and advance the commercialization of *PentaLyte*®.

Hextend® is manufactured and distributed in the U.S. by Hospira, Inc., and in South Korea by CJ CheilJedang ("CJ"), under license from us. Summit Pharmaceuticals International Corporation ("Summit") has a license to develop *Hextend*® and *PentaLyte*® in Japan, the People's Republic of China, and Taiwan.

The Market for Plasma Volume Expanders

Blood transfusions are often necessary during surgical procedures and are sometimes required to treat patients suffering severe blood loss due to traumatic injury. Many surgical and trauma cases do not require blood transfusions but do involve significant bleeding that can place a patient at risk of suffering from shock caused by the loss of fluid volume (or hypovolemia) and physiological balance. Whole blood and packed red cells generally cannot be administered to a patient until the patient's blood has been typed and sufficient units of compatible blood or red cells can be located. Periodic shortages of supply of donated human blood are not uncommon, and rare blood types are often difficult to locate. The use of human blood products also poses the risk of exposing the patient to blood-borne diseases such as AIDS and hepatitis.

Due to the risks and cost of using human blood products, even when a sufficient supply of compatible blood is available, physicians treating patients suffering blood loss are generally not permitted to transfuse red blood cells until the patient's level of red blood cells has fallen to a level known as the "transfusion trigger." During the course of surgery, while blood volume is being lost, the patient is infused with plasma volume expanders to maintain adequate blood circulation. During the surgical procedure, red blood cells are not generally replaced until the patient has lost approximately 45% to 50% of his or her red blood cells, thus reaching the transfusion trigger, at which point the transfusion of red blood cells may be required. After the transfusion of red blood cells, the patient may continue to experience blood volume loss, which will be treated with plasma volume expanders. Even in those patients who do not require a transfusion, physicians routinely administer plasma volume expanders to maintain sufficient fluid volume to permit the available red blood cells to circulate throughout the body and to maintain the patient's physiological balance.

Several units of fluid replacement products are often administered during surgery. The number of units will vary depending upon the amount of blood loss and the kind of plasma volume expander administered. Crystalloid products must be used in larger volumes than those required with colloid products such as *Hextend*®.

Uses and Benefits of Hextend® and PentaLyte®

Hextend® and *PentaLyte*® have been formulated to maintain the patient's tissue and organ function by sustaining the patient's fluid volume and physiological balance. Both products are composed of a hydroxyethyl starch, electrolytes, sugar, and lactate in an aqueous base. *Hextend*® uses a high molecular weight hydroxyethyl starch (hetastarch), whereas *PentaLyte*® uses a lower molecular weight hydroxyethyl starch (pentastarch). The hetastarch is retained in the blood longer than the pentastarch, which may make *Hextend*® the product of choice when a larger volume of plasma expander or blood replacement solution for low-temperature surgery is needed, or when the patient's ability to restore his own blood proteins after surgery is compromised. *PentaLyte*®, with pentastarch, would be eliminated from the blood faster than *Hextend*® and might be used when less plasma expander is needed when the patient is more capable of quickly restoring lost blood proteins.

Certain clinical test results indicate that *Hextend*® is effective at maintaining blood calcium levels when it is used to replace lost blood volume. Calcium can be a significant factor in regulating blood clotting and cardiac function. Clinical studies have also shown that Hextend is better at maintaining the acid-base balance than are saline-based surgical fluids. If developed, we expect that *PentaLyte*® will also be able to maintain blood calcium levels and acid-base balance, as the electrolyte formulation of *PentaLyte*® is identical to that of *Hextend*®.

Albumin produced from human plasma is also used as a plasma volume expander, but it is expensive and subject to supply shortages. Additionally, an FDA warning has cautioned physicians about the risk of administering albumin to seriously ill patients.

We have not attempted to synthesize potentially toxic and costly oxygen-carrying molecules such as hemoglobin because the loss of fluid volume and physiological balance may contribute as much to shock as the loss of the oxygen-carrying component of the blood. Surgical and trauma patients are routinely given supplemental oxygen and retain a substantial portion of their own red blood cells. Whole blood or packed red blood cells are generally not transfused during surgery or in trauma care until several units of plasma volume expander have been administered and the patient's blood cell count has fallen to the transfusion trigger threshold. Therefore, the lack of oxygen-carrying molecules in our solutions should not pose a significant contraindication to use.

However, our scientists have conducted laboratory animal experiments in which they have shown that *Hextend*® can be successfully used in conjunction with a hemoglobin-based oxygen carrier solution approved for veterinary purposes to completely replace the animal's circulating blood volume without any subsequent transfusion and without the use of supplemental oxygen. By diluting these oxygen carrier solutions, *Hextend*® may reduce the potential toxicity and costs associated with the use of those products. Once such solutions have received regulatory approval and become commercially available, this sort of protocol may prove valuable in certain markets in the developing world where the blood supply is extremely unsafe. These applications may also be useful in combat situations in which logistics render blood use impracticable.

Licensing and Sale of Plasma Volume Expander Products

Hospira

Hospira has the exclusive right to manufacture and sell *Hextend*® in the U.S. and Canada under a license agreement with us. Hospira is presently marketing *Hextend*® in the U.S. Hospira's license applies to all therapeutic uses other than those involving hypothermic surgery, during which the patient's body temperature reaches temperatures lower than 12°C ("Hypothermic Use"), or those involving the replacement of substantially all of a patient's circulating blood volume ("Total Body Washout").

Hospira pays us a royalty on total annual net sales of *Hextend*®. The royalty rate is 5% plus an additional .22% for each $1,000,000 of annual net sales, up to a maximum royalty rate of 36%. The royalty rate for each year is applied on a total net sales basis. Hospira's obligation to pay royalties on sales of *Hextend*® will expire on a country-by-country basis when all patents protecting *Hextend*® in the applicable country expire and any third party obtains certain regulatory approvals to market a generic equivalent product in that country. The relevant composition patents begin to expire in 2014 and the relevant methods of use patents expire in 2019.

We have the right to convert Hospira's exclusive license to a non-exclusive license or to terminate the license outright if certain minimum sales and royalty payments are not met. In order to terminate the license outright, we would pay a termination fee in an amount ranging from the milestone payments we received to an amount equal to three times the prior year's net sales, depending upon when termination occurs. Hospira has agreed to manufacture *Hextend*® for sale by us in the event that the exclusive license is terminated.

Hospira has certain rights to acquire additional licenses to manufacture and sell our other plasma expander products in their market territory. If Hospira exercises these rights to acquire a license to sell such products for uses other than Hypothermic Use or Total Body Washout, in addition to paying royalties, Hospira will be obligated to pay a license fee based upon our direct and indirect research, development, and other costs allocable to the new product. If Hospira desires to acquire a license to sell any of our products for use in Hypothermic Surgery or Total Body Washout, the license fees and other terms of the license will be subject to negotiation between the parties. For the purpose of determining the applicable royalty rates, net sales of any such new products licensed by Hospira will be aggregated with sales of *Hextend*®. If Hospira does not exercise its right to acquire a new product license, we may manufacture and sell the product ourselves or we may license others to do so.

CJ

CJ markets *Hextend*® in South Korea under an exclusive license from us. CJ paid us a license fee to acquire their right to market *Hextend*®. CJ also pays us a royalty on sales of *Hextend*®. The royalty will range from $1.30 to $2.60 per 500 ml unit of product sold, depending upon the price approved by Korea's National Health Insurance. CJ is also responsible for obtaining the regulatory approvals required to manufacture and market *PentaLyte*®, including conducting any clinical trials that may be required, and will bear all related costs and expenses.

Summit

We have entered into agreements with Summit to develop *Hextend*® and *PentaLyte*® in Japan, the People's Republic of China, and Taiwan. Summit had sublicensed to Maruishi Pharmaceutical Co., Ltd. ("Maruishi") the right to manufacture and market *Hextend*® in Japan, and the right to manufacture and market *Hextend*® and *PentaLyte*® in China and Taiwan. However, Maruishi has withdrawn from the sublicense arrangement with Summit, and Summit has informed us that they intend to seek a replacement sublicensee.

A Phase III clinical trial using *Hextend*® in surgery, funded by Maruishi, was conducted in Japan, but work on the trial has not been completed. Due to the withdrawal of Maruishi from its sublicense agreement, Summit will need to find a replacement sublicensee or other source of funding in order to complete the Phase III clinical study. Successful completion of the clinical study is required in order to seek regulatory approval to market *Hextend*® in Japan.

The revenues from licensing fees, royalties, and net sales, and any other payments made for co-development, manufacturing, or marketing rights to *Hextend*® and *PentaLyte*® in Japan will be shared between us and Summit as follows: 40% to us and 60% to Summit. "Net sales" means the gross revenues from the sale of a product, less rebates, discounts, returns, transportation costs, sales taxes, and import/export duties. Summit paid us fees for the right to co-develop *Hextend*® and *PentaLyte*® in Japan, and Summit has also paid us a share of a sublicense fee payment from Maruishi.

We will pay to Summit 8% of all net royalties that we receive from the sale of *PentaLyte*® in the U.S., plus 8% of any license fees that we receive in consideration of granting a license to develop, manufacture, and market *PentaLyte*® in the U.S. "Net royalties" means royalty payments received during a calendar year, minus the following costs and expenses incurred during such calendar year: (a) all taxes assessed (other than taxes determined with reference to our net income) and credits given or owed by us in connection with the receipt of royalties on the sale of *PentaLyte*® in the U.S., and (b) all fees and expenses payable by us to the FDA (directly or as a reimbursement of any licensee) with respect to *PentaLyte*®.

Summit paid us a fee to acquire the China and Taiwan license. We also will be entitled to receive 50% of the royalties and milestone payments payable to Summit by any third-party sublicensee.

The foregoing description of the Summit agreement is a summary only and is qualified in all respects by reference to the full text of the Summit agreements.

Major Customers

During 2012, 2011, and 2010, all of our royalty revenues were generated through sales of *Hextend*® by Hospira in the U.S. and by CJ in the Republic of Korea. We also earned license fees from CJ, Summit and the Betalogics division of Johnson & Johnson. In 2012, license fee revenues include $752,896 in subscription and advertisement revenues. The following table shows revenues paid by customer that were recognized during the past three fiscal years, as well as license fee revenues from subscription and advertisements.

	% of Total Revenues for the Year Ending December 31,		
Licensee	**2012**	**2011**	**2010**
Hospira	30%	63%	68%
CJ	8%	15%	20%
Summit	10%	14%	12%
Others	-%	8%	-%
Subscriptions and advertisements customers	52%	-%	-%

Royalty Revenues and License Fees by Geographic Area

The principal source of revenues has been from royalties from the sale of our product. During the past three years, we received $541,293, $753,209, and $945,461in royalty payments from Hospira and CJ from the sale of *Hextend*®. In 2012, license fee revenues include $752,896 in subscription and advertisement revenues by LifeMap Sciences. The following table shows the source of our 2012, 2011, and 2010 royalty and license fee revenues by geographic areas, based on the country of domicile of the licensee:

	Revenues for Year Ending December 31,		
Geographic Area	**2012**	**2011**	**2010**
Domestic	$ 1,183,638	$ 719,958	$ 839,740
Asia	258,041	300,680	398,625
Total Revenues	$ 1,441,679	$ 1,020,638	$ 1,238,365

Manufacturing

Facilities Required—Stem Cell Products

We lease a 19,000 square-foot building in Alameda, California. The building is cGMP-capable and has previously been certified as Class 1,000 and Class 10,000 laboratory space, and includes cell culture and manufacturing equipment previously validated for use in the cGMP of cell-based products. Our subsidiaries, OncoCyte, OrthoCyte, and ReCyte Therapeutics are also conducting their research and development activities at our Alameda facility.

ESI leases approximately 1,290 square feet of laboratory space in the Biopolis, a research and development park in Singapore devoted to the biomedical sciences. We will use this facility as a manufacturing and shipping point for sales in parts of Asia.

Cell Cure Neurosciences leases approximately 290 square meters of office and laboratory space located at Hadasa Ein Carem, in Jerusalem, Israel. Most of Cell Cure Neurosciences' research and development work is conducted by Hadasit at Hadassah University Hospital under contractual arrangements.

On January 7, 2013, BioTime entered into a lease for an office and research facility located at 230 Constitution Drive, Menlo Park, California that BioTime plans to make available for use by BAC. The building on the leased premises contains approximately 24,080 square feet of space. The lease is for a term of three years.

Facilities Required—Plasma Volume Expanders

Any products that are used in clinical trials for regulatory approval in the U.S. or abroad, or that are approved by the FDA or foreign regulatory authorities for marketing have to be manufactured according to GMP at a facility that has passed regulatory inspection. In addition, products that are approved for sale will have to be manufactured in commercial quantities, and with sufficient stability to withstand the distribution process, and in compliance with such domestic and foreign regulatory requirements as may be applicable. The active ingredients and component parts of the products must be of medical grade or themselves be manufactured according to FDA-acceptable cGMP.

Hospira manufactures *Hextend*® for use in the North American market, and CJ manufactures *Hextend*® for use in South Korea. Hospira and CJ have the facilities to manufacture *Hextend*® and our other products in commercial quantities. If Hospira and CJ choose not to manufacture and market other BioTime products, other manufacturers will have to be identified that would be willing to manufacture products for us or any licensee of our products as we do not have facilities to manufacture our plasma volume expander products in commercial quantities, or under cGMP. Acquiring a manufacturing facility would involve significant expenditure of time and money for design and construction of the facility, purchasing equipment, hiring and training a production staff, purchasing raw material, and attaining an efficient level of production. Although we have not determined the cost of constructing production facilities that meet FDA requirements, we expect that the cost would be substantial, and that we would need to raise additional capital in the future for that purpose. To avoid the incurrence of those expenses and delays, we are relying on Hospira and CJ for the production of *Hextend*®, but there can be no assurance that satisfactory arrangements will be made for any new products that we may develop.

Raw Materials—Plasma Volume Expanders

Although most ingredients in the products we are developing are readily obtainable from multiple sources, we know of only a few manufacturers of the hydroxyethyl starches that serve as the primary drug substance in *Hextend*® and *PentaLyte*®. Hospira and CJ presently have a source of supply of the hydroxyethyl starch used in *Hextend*® and *PentaLyte*® and have agreed to maintain a supply sufficient to meet market demand for *Hextend*® in the countries in which they market the product. We believe that we will be able to obtain a sufficient supply of starch for our needs in the foreseeable future, although we do not have supply agreements in place. If for any reason a sufficient supply of hydroxyethyl starch could not be obtained, we or a licensee would have to acquire a manufacturing facility and the technology to produce the hydroxyethyl starch according to cGMP. We would have to raise additional capital to participate in the development and acquisition of the necessary production technology and facilities, which may not be feasible. The use of a different hydroxyethyl starch could require us or a licensee to conduct additional clinical trials for FDA or foreign regulatory approval to market *Hextend*® with the new starch.

If arrangements cannot be made for a source of supply of hydroxyethyl starch, we would have to reformulate our solutions to use one or more other starches that are more readily available. In order to reformulate our products, we would have to perform new laboratory and clinical testing to determine whether the alternative starches could be used in a safe and effective synthetic plasma volume expander, low-temperature blood substitute, or organ preservation solution. We or our licensees would also have to obtain new regulatory approvals from the FDA and foreign regulatory agencies to market the reformulated product. If needed, such testing and regulatory approvals would require the incurrence of substantial cost and delay, and there is no certainty that any such testing would demonstrate that an alternative ingredient, even if chemically similar to the one currently used, would be safe or effective.

Marketing

Stem Cell Research Products

Our products for use in stem cell research are being offered to researchers at universities and other institutions, at companies in the bioscience and biopharmaceutical industries, and at other companies that provide research products to companies in those industries. By initially focusing our resources on products and technologies that will be used by researchers and drug developers at larger institutions and corporations, we believe that we will be able to commercialize products more quickly, and with less capital, than would be possible were we to develop therapeutic products ourselves.

We have designated our subsidiary LifeMap Sciences as our primary internet marketing arm for our research products. In addition to offering subscriptions to its database products, LifeMap Sciences is also utilizing its databases as part of its strategy for marketing our research products online to reach life sciences researchers at biotech and pharmaceutical companies and at academic institutions and research hospitals worldwide. The *LifeMap Discovery*™ data base provides access to available cell-related information and resources necessary to improve stem cell research and development of therapeutics based on regenerative medicine and may promote the sale of our *PureStem*™ hEPC by permitting data base users to follow the development of hES cell lines to the purified hEPC state.

We have also marketed some of our research products through arrangements with third party distributors.

The market for our stem cell products may be impacted by the amount of government funding available for research in the development of stem cell therapies.

Plasma Volume Expanders

Hextend® is being distributed in the U.S. by Hospira and in South Korea by CJ under exclusive licenses from us. Hospira also has the right to obtain licenses to manufacture and sell our other plasma volume expander products. We have granted CJ the right to market *PentaLyte*® in South Korea, and we have licensed to Summit the right to market *Hextend*® and *PentaLyte*® in Japan, China, and Taiwan, but our licensees will have to first obtain the foreign regulatory approvals required to sell our product in those countries.

Because *Hextend*® is a surgical product, sales efforts must be directed to physicians and hospitals. The *Hextend*® marketing strategy is designed to reach its target customer base through sales calls, through an advertising campaign focused on the use of a plasma-like substance to replace lost blood volume, and on the ability of *Hextend*® to support vital physiological processes.

Hextend® competes with other products used to treat or prevent hypovolemia, including albumin, generic 6% hetastarch solutions, and crystalloid solutions. The competing products have been commonly used in surgery and trauma care for many years, and in order to sell *Hextend*®, physicians must be convinced to change their product loyalties. Although albumin is expensive, crystalloid solutions and generic 6% hetastarch solutions sell at low prices. In order to compete with other products, particularly those that sell at lower prices, *Hextend*® will have to be recognized as providing medically significant advantages.

The FDA has required the manufacturers of 6% hetastarch in saline solutions to change their product labeling by adding a warning stating that those products are not recommended for use as a cardiac bypass prime solution, or while the patient is on cardiopulmonary bypass, or in the immediate period after the pump has been disconnected. We have not been required to add that warning to the labeling of *Hextend*®. An article discussing this issue entitled "6% Hetastarch in Saline Linked to Excessive Bleeding in Bypass Surgery" appeared in the December 2002 edition of *Anesthesiology News*. We understand that a number of hospitals have switched from 6% hetastarch in saline to *Hextend*® due to these concerns.

As part of the marketing program, a number of studies have been conducted that show the advantages of receiving *Hextend*® and our other products during surgery. As these studies are completed, the results are presented at medical conferences and articles are written for publication in medical journals. We are also aware of independent studies using *Hextend*® that are being conducted by physicians and hospitals who may publish their findings in medical journals or report their findings at medical conferences. For example, an independent study in hemodynamically unstable trauma patients conducted at the Ryder Trauma Center at University of Miami reported that initial resuscitation with *Hextend*® was associated with reduced mortality and no obvious coagulopathy compared to fluid resuscitation without *Hextend*®. This study was published in the May 2010 issue of the *Journal of the American College of Surgeons*. The outcome of future medical studies and timing of the publication or presentation of the results could have an effect on *Hextend*® sales.

Patents and Trade Secrets

We rely primarily on patents and contractual obligations with employees and third parties to protect our proprietary rights. We have sought, and intend to continue to seek, appropriate patent protection for important and strategic components of our proprietary technologies by filing patent applications in the U.S. and certain foreign countries. There can be no assurance that any of our patents will guarantee protection or market exclusivity for our products and product candidates. We also use license agreements both to access technologies developed by other companies and universities and to convey certain intellectual property rights to others. Our financial success will be dependent in part on our ability to obtain commercially valuable patent claims and to protect our intellectual property rights and to operate without infringing upon the proprietary rights of others.

As of March 18, 2013, we owned or controlled or licensed directly or through our subsidiaries 281 issued or allowed U.S. patents and we also owned or controlled over 141 pending U.S. patent applications, including provisional patent applications, to protect our proprietary technologies. We also licensed 140 IP patents and applications from WARF.

Our patents and patent applications are directed to compositions of matter, formulations, methods of use and/or methods of manufacturing, as appropriate. In addition to patenting our own technology and that of our subsidiaries, we and our subsidiaries have licensed patents and patent applications for certain stem cell technology, hEPC, and hES cell lines from other companies. See "Licensed Stem Cell Technologies and Stem Cell Product Development Agreements."

The patent positions of pharmaceutical and biotechnology companies, including ours, are generally uncertain and involve complex legal and factual questions. Our business could be negatively impacted by any of the following:

- the claims of any patents that are issued may not provide meaningful protection, may not provide a basis for commercially viable products or may not provide us with any competitive advantages;
- our patents may be challenged by third parties;
- others may have patents that relate to our technology or business that may prevent us from marketing our product candidates unless we are able to obtain a license to those patents;
- the pending patent applications to which we have rights may not result in issued patents;
- we may not be successful in developing additional proprietary technologies that are patentable.

In addition, others may independently develop similar or alternative technologies, duplicate any of our technologies and, if patents are licensed or issued to us, design around the patented technologies licensed to or developed by us. Moreover, we could incur substantial costs in litigation if we have to defend ourselves in patent lawsuits brought by third parties or if we initiate such lawsuits

In Europe, the European Patent Convention prohibits the granting of European patents for inventions that concern "uses of human embryos for industrial or commercial purposes." The European Patent Office is presently interpreting this prohibition broadly, and is applying it to reject patent claims that pertain to hES cells. However, this broad interpretation is being challenged through the European Patent Office appeals system. As a result, we do not yet know whether or to what extent we will be able to obtain patent protection for our hES cell technologies in Europe.

The recent Supreme Court decision in Mayo Collaborative Services v. Prometheus Laboratories, Inc., will need to be considered in determining whether certain diagnostic methods can be patented, since the Court denied patent protection for the use of a mathematical correlation of the presence of a well-known naturally occurring metabolite as a means of determining proper drug dosage. Our subsidiary OncoCyte is developing *PanC-Dx*™ as a cancer diagnostic test, based on the presence of certain genetic markers for a variety of cancers. Because *PanC-Dx*™ combines an innovative methodology with newly discovered compositions of matter, we are hopeful that this Supreme Court decision will not preclude the availability of patent protection for OncoCyte's new product. However, like other developers of diagnostic products, we are evaluating this new Supreme Court decision. The USPTO has issued interim guidelines in light of the Supreme Court decision indicating that process claims having a natural principle as a limiting step will be evaluated to determine if the claim includes additional steps that practically apply the natural principle such that the claim amounts to significantly more than the natural principle itself.

Patents Used in Our Plasma Volume Expander Business

We currently hold 26 issued U. S. patents with composition and methods-of-use claims covering our proprietary solutions, including *Hextend*® and *PentaLyte*®. The most recent U.S. patents were issued during March 2009. Some of our allowed claims in the U.S., which include the composition and methods-of-use of *Hextend*® and *PentaLyte*®, are expected to remain in force until 2014 in the case of the composition patents, and 2019 in the case of the methods-of-use patents. Patents covering certain proprietary solutions have also been issued in several countries of the European Union, Australia, Israel, Russia, South Africa, South Korea, Japan, China, Hong Kong, Taiwan, and Singapore, and we have filed patent applications in other foreign countries for certain products, including *Hextend*®, *HetaCool*®, and *PentaLyte*®. There is no assurance that any additional patents will be issued. Furthermore, the enforcement of patent rights often requires litigation against third party infringers, and such litigation can be costly to pursue.

General Risks Related to Obtaining and Enforcing Patent Protection

There is a risk that any patent applications that we file and any patents that we hold or later obtain could be challenged by third parties and be declared invalid or infringing on third party claims. A patent interference proceeding may be instituted with the U.S. Patent and Trademark Office ("PTO") when more than one person files a patent application covering the same technology, or if someone wishes to challenge the validity of an issued patent on patents and applications filed before March 16, 2013. At the completion of the interference proceeding, the PTO will determine which competing applicant is entitled to the patent, or whether an issued patent is valid. Patent interference proceedings are complex, highly contested legal proceedings, and the PTO's decision is subject to appeal. This means that if an interference proceeding arises with respect to any of our patent applications, we may experience significant expenses and delay in obtaining a patent, and if the outcome of the proceeding is unfavorable to us, the patent could be issued to a competitor rather than to us. For patents and applications filed after March 16, 2013 a derivation proceeding may be initiated where the PTO may determine if one patent was derived from the work of an inventor on another patent. In addition to interference proceedings, the PTO can re-examine issued patents at the request of a third party seeking to have the patent invalidated. After March 16, 2013 an inter partes review proceeding will allow third parties to challenge the validity of an issued patent where there is a reasonable likelihood of invalidity. This means that patents owned or licensed by us may be subject to re-examination and may be lost if the outcome of the re-examination is unfavorable to us.

Oppositions to the issuance of patents may be filed under European patent law and the patent laws of certain other countries. As with the PTO interference proceedings, these foreign proceedings can be very expensive to contest and can result in significant delays in obtaining a patent or can result in a denial of a patent application. As of March 16, 2013, the PTO Post Grant Review will allow US patents to be challenged in a proceeding similar to European oppositions.

The enforcement of patent rights often requires litigation against third-party infringers, and such litigation can be costly to pursue. Even if we succeed in having new patents issued or in defending any challenge to issued patents, there is no assurance that our patents will be comprehensive enough to provide us with meaningful patent protection against our competitors.

In addition to relying on patents, we rely on trade secrets, know-how, and continuing technological advancement to maintain our competitive position. We have entered into intellectual property, invention, and non-disclosure agreements with our employees, and it is our practice to enter into confidentiality agreements with our consultants. There can be no assurance, however, that these measures will prevent the unauthorized disclosure or use of our trade secrets and know-how, or that others may not independently develop similar trade secrets and know-how or obtain access to our trade secrets, know-how, or proprietary technology.

Competition

We and our subsidiaries face substantial competition in both our blood plasma expander business and our regenerative medicine and stem cell business. That competition is likely to intensify as new products and technologies reach the market. Superior new products are likely to sell for higher prices and generate higher profit margins once acceptance by the medical community is achieved. Those companies that are successful at being the first to introduce new products and technologies to the market may gain significant economic advantages over their competitors in the establishment of a customer base and track record for the performance of their products and technologies. Such companies will also benefit from revenues from sales that could be used to strengthen their research and development, production, and marketing resources. All companies engaged in the medical products industry face the risk of obsolescence of their products and technologies as more advanced or cost-effective products and technologies are developed by their competitors. As the industry matures, companies will compete based upon the performance and cost-effectiveness of their products.

Products for Regenerative Medicine

The stem cell industry is characterized by rapidly evolving technology and intense competition. Our competitors include major multinational pharmaceutical companies, specialty biotechnology companies, and chemical and medical products companies operating in the fields of regenerative medicine, cell therapy, tissue engineering, and tissue regeneration. 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, certain smaller biotech companies have formed strategic collaborations, partnerships, and other types of joint ventures with larger, well-established industry competitors that afford the smaller companies' potential research and development as well as commercialization advantages. 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 we are developing.

We believe that some of our competitors are trying to develop hES cell-, iPS cell-, and hEPC-based technologies and products that may compete with our stem cell products based on efficacy, safety, cost, and intellectual property positions. We are aware that ACT has obtained approval from the FDA to commence clinical trials of a hES cell product designed to treat age-related macular degeneration. If the ACT product is proven to be safe and effective, it may reach the market ahead of Cell Cure Neuroscience's *OpRegen*™, which is not yet in clinical trials.

We may also face competition from companies that have filed patent applications relating to the cloning or differentiation of stem cells. Those companies include ACT, which has had claims allowed on a patent for RPE cells. We may be required to seek licenses from these competitors in order to commercialize certain products proposed by us, and such licenses may not be granted. Upon consummation of the asset acquisition transaction under the Asset Contribution Agreement, BAC will be substituted as the appellant in an appeal of certain decisions of the PTO in favor of Viacyte, Inc. in two patent interference proceedings that were brought by Geron against Viacyte. Viacyte is primarily engaged in the development of stem cell derived remedies for diabetes.

Plasma Volume Expanders

Our plasma volume expander solutions, including *Hextend*®, will compete with products currently used to treat or prevent hypovolemia, including albumin, other colloid solutions, and crystalloid solutions presently manufactured by established pharmaceutical companies, and with human blood products. Some of these products–crystalloid solutions in particular–are commonly used in surgery and trauma care, and they sell at low prices. In order to compete with other products, particularly those that sell at lower prices, our products will have to be recognized as providing medically significant advantages. The competing products are being manufactured and marketed by established pharmaceutical companies with large research facilities, technical staffs, and financial and marketing resources. B. Braun presently markets *Hespan*®, an artificial plasma volume expander containing 6% hetastarch in saline solution. Hospira and Baxter International manufacture and sell a generic equivalent of *Hespan*®. Hospira, which markets *Hextend*® in the U.S., is also the leading seller of generic 6% hetastarch in saline solution, and *Voluven*®, a plasma volume expander containing a 6% low molecular weight hydroxyethyl starch in saline solution. Sanofi-Aventis, Baxter International, and Alpha Therapeutics sell albumin, and Hospira, Baxter International, and B. Braun sell crystalloid solutions. As a result of the introduction of generic plasma expanders and new proprietary products, competition in the plasma expander market has intensified, and wholesale prices of both hetastarch products and albumin have declined which has forced Hospira and other vendors of hetastarch products to make additional price cuts in order to maintain their share of the market.

To compete with new and existing plasma expanders, we have developed products that contain constituents that may prevent or reduce the physiological imbalances, bleeding, fluid overload, edema, poor oxygenation, and organ failure that can occur when competing products are used. To compete with existing organ preservation solutions, we have developed solutions that can be used to preserve all organs simultaneously and for long periods of time.

Government Regulation

FDA and Foreign Regulation

The FDA and foreign regulatory authorities will regulate our proposed products as drugs, biologicals, or medical devices, depending upon such factors as the use to which the product will be put, the chemical composition, and the interaction of the product with the human body. In the U.S., products, such as plasma volume expanders that are intended to be introduced into the body will be regulated as drugs, while tissues and cells intended for transplant into the human body will be regulated as biologicals, and both plasma volume expanders and tissue and cell therapeutic products will be reviewed by the FDA staff responsible for evaluating biologicals.

Our domestic human drug and biological products will be subject to rigorous FDA review and approval procedures. After testing in animals, an IND must be filed with the FDA to obtain authorization for human testing. Extensive clinical testing, which is generally done in three phases, must then be undertaken at a hospital or medical center to demonstrate optimal use, safety, and efficacy of each product in humans. Each clinical study is conducted under the auspices of an independent Institutional Review Board ("IRB"). The IRB will consider, among other things, ethical factors, the safety of human subjects, and the possible liability of the institution. The time and expense required to perform this clinical testing can far exceed the time and expense of the research and development initially required to create the product. No action can be taken to market any therapeutic product in the U.S. until an appropriate New Drug Application ("NDA") has been approved by the FDA. FDA regulations also restrict the export of therapeutic products for clinical use prior to NDA approval.

Even after initial FDA approval has been obtained, further studies may be required to provide additional data on safety or to gain approval for the use of a product as a treatment for clinical indications other than those initially targeted. In addition, use of these products during testing and after marketing could reveal side effects that could delay, impede, or prevent FDA marketing approval, resulting in FDA-ordered product recall, or in FDA-imposed limitations on permissible uses.

Obtaining regulatory approval of *Renevia*™ or a similar implantable matrix for tissue transplant or stem cell therapy will require the preparation of a Device Master File containing details on the basic chemistry of the product manufacturing and production methods, analytical controls to assure that the product meets its release specification, and data from analytical assay and process validations, ISO 10993 biocompatibility testing, and if stem cell line cultures are involved, safety and toxicology investigations of those cultures. Preparation of a Device Master File and completion of ISO biocompatibility testing represents a majority of the expenses associated with the regulatory application process in Europe. Clinical trials may also be required on pre-approval or post-approval basis in Europe. The procedures for obtaining FDA approval to sell products in the U.S. are likely to be more stringent, and the cost greater, than would be the case in an application for approval in Europe.

The FDA and comparable foreign regulatory agencies regulate the manufacturing process of pharmaceutical products, medical devices, and human tissue and cell products, requiring that they be produced in compliance with cGMP (see "Manufacturing"). The regulatory agencies also regulate the content of advertisements used to market pharmaceutical products and medical devices. Generally, claims made in advertisements concerning the safety and efficacy of a drug or biological product, or any advantages of a product over another product, must be supported by clinical data filed as part of an NDA or an amendment to an NDA, and statements regarding the use of a product must be consistent with the approved labeling and dosage information for that product.

Sales of pharmaceutical products outside the U.S. are subject to foreign regulatory requirements that vary widely from country to country. Even if FDA approval has been obtained, approval of a product by comparable regulatory authorities of foreign countries must be obtained prior to the commencement of marketing the product in those countries. The time required to obtain such approval may be longer or shorter than that required for FDA approval.

The U.S. government and its agencies have until recently refused to fund research which involves the use of human embryonic tissue. President Bush issued Executive Orders on August 9, 2001 and June 20, 2007 that permitted federal funding of research on hES cells using only the limited number of hES cell lines that had already been created as of August 9, 2001. On March 9, 2009, President Obama issued an Executive Order rescinding President Bush's August 9, 2001 and June 20, 2007 Executive Orders. President Obama's Executive Order also instructed the NIH to review existing guidance on human stem cell research and to issue new guidance on the use of hES cells in federally funded research, consistent with President's new Executive Order and existing law. The NIH has adopted new guidelines that went into effect July 7, 2009. The central focus of the new guidelines is to assure that hES cells used in federally funded research were derived from human embryos that were created for reproductive purposes, were no longer needed for this purpose, and were voluntarily donated for research purposes with the informed written consent of the donors. Those hES cells that were derived from embryos created for research purposes rather than reproductive purposes, and other hES cells that were not derived in compliance with the guidelines, are not eligible for use in federally funded research.

In addition to President Obama's Executive Order, a bipartisan bill has been introduced in the U.S. Senate that would allow Federal funding of hES research. The Senate bill is identical to one that was previously approved by both Houses of Congress but vetoed by President Bush. The Senate Bill provides that hES cells will be eligible for use in research conducted or supported by federal funding if the cells meet each of the following guidelines: (1) the stem cells were derived from human embryos that have been donated from IVF clinics, were created for the purposes of fertility treatment, and were in excess of the clinical need of the individuals seeking such treatment; (2) prior to the consideration of embryo donation and through consultation with the individuals seeking fertility treatment, it was determined that the embryos would never be implanted in a woman and would otherwise be discarded, and (3) the individuals seeking fertility treatment donated the embryos with written informed consent and without receiving any financial or other inducements to make the donation. The Senate Bill authorizes the NIH to adopt further guidelines consistent with the legislation.

California State Regulations

The state of California has adopted legislation and regulations that require institutions that conduct stem cell research to notify, and in certain cases obtain approval from, a Stem Cell Research Oversight Committee ("SCRO Committee") before conducting the research. Advance notice, but not approval by the SCRO Committee, is required in the case of *in vitro* research that does not derive new stem cell lines. Research that derives new stem cell lines or that involves fertilized human oocytes or blastocysts, or that involves clinical trials or the introduction of stem cells into humans, or that involves introducing stem cells into animals, requires advanced approval by the SCRO Committee. Clinical trials may also entail approvals from IRB at the medical center at which the study is conducted, and animal studies may require approval by an Institutional Animal Care and Use Committee.

All human pluripotent stem cell lines that will be used in our research must be acceptably derived. To be acceptably derived, the pluripotent stem cell line must have been:

- listed on the National Institutes of Health Human Embryonic Stem Cell Registry; or
- deposited in the United Kingdom Stem Cell Bank; or
- derived by, or approved for use by, a licensee of the United Kingdom Human Fertilisation and Embryology Authority; or
- derived in accordance with the Canadian Institutes of Health Research Guidelines for Human Stem Cell Research under an application approved by the National Stem Cell Oversight Committee; or

- derived under the following conditions:

  (a) Donors of gametes, embryos, somatic cells, or human tissue gave voluntary and informed consent,

  (b) Donors of gametes, embryos, somatic cells, or human tissue did not receive valuable consideration. This provision does not prohibit reimbursement for permissible expenses as determined by an IRB,

  (c) A person may not knowingly, for valuable consideration, purchase or sell gametes, embryos, somatic cells, or human tissue for research purposes. This provision does not prohibit reimbursement for permissible expenditures as determined by an IRB or SCRO Committee. "Permissible expenditures" means necessary and reasonable costs directly incurred as a result of persons, not including human subjects or donors, providing gametes, embryos, somatic cells, or human tissue for research purposes. Permissible expenditures may include but are not limited to costs associated with processing, quality control, storage, or transportation of materials,

  (d) Donation of gametes, embryos, somatic cells, or human tissue was overseen by an IRB (or, in the case of foreign sources, an IRB equivalent),

  (e) Individuals who consented to donate stored gametes, embryos, somatic cells, or human tissue were not reimbursed for the cost of storage prior to the decision to donate.

California regulations also require that certain records be maintained with respect to stem cell research and the materials used, including:

- a registry of all human stem cell research conducted, and the source(s) of funding for this research; and
- a registry of human pluripotent stem cell lines derived or imported, to include, but not necessarily limited to:

  (a) the methods utilized to characterize and screen the materials for safety;

  (b) the conditions under which the materials have been maintained and stored;

  (c) a record of every gamete donation, somatic cell donation, embryo donation, or product of somatic cell nuclear transfer that has been donated, created, or used;

  (d) a record of each review and approval conducted by the SCRO Committee.

California Proposition 71

During November 2004, California State Proposition 71 ("Prop. 71"), the California Stem Cell Research and Cures Initiative, was adopted by state-wide referendum. Prop. 71 provides for a state-sponsored program designed to encourage stem cell research in the State of California, and to finance such research with State funds totaling approximately $295 million annually for 10 years beginning in 2005. This initiative created CIRM, which will provide grants, primarily but not exclusively, to academic institutions to advance both hES cell research and adult stem cell research. During April 2009, we were awarded a $4,721,706 research grant from CIRM. We believe that Prop. 71 funding for research in the use of hES cells for various diseases and conditions will contribute to the demand for stem cell research products.

Employees

As of December 31, 2012, we employed 73 persons on a full-time basis and 3 persons on a part-time basis. Thirty-one full-time employees and one part-time employee hold Ph.D. Degrees in one or more fields of science. None of our employees are covered by a collective bargaining agreement.

COMPANY INFORMATION

We are a reporting company and file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy these reports, proxy statements and other information at the SEC's Public Reference Room at 100 F Street N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 or e-mail the SEC at *publicinfo@sec.gov* for more information on the operation of the public reference room. Our SEC filings are also available at the SEC's website at *http://www.sec.gov*. Our Internet address is: *http://www.biotimeinc.com*. There we make available, free of charge, our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and any amendments to those reports, as soon as reasonably practicable after we electronically file such material with, or furnish such material to, the SEC.

Item 1A. Risk Factors

Our business is subject to various risks, including those described below. You should consider the following risk factors, together with all of the other information included in this report, which could materially adversely affect our proposed operations, our business prospects, and financial condition, and the value of an investment in our business. There may be other factors that are not mentioned here or of which we are not presently aware that could also affect our business operations and prospects.

Risks Related to Our Business Operations

We have incurred operating losses since inception and we do not know if we will attain profitability

Our comprehensive net losses for the fiscal years ended December 31, 2012, 2011, and 2010 were $21,362,524, $17,535,587, and $10,287,280, respectively, and we had an accumulated deficit of $101,895,712, $80,470,009, and $63,954,509, as of December 31, 2012, 2011, and 2010, respectively. Since inception, we have primarily financed our operations through the sale of equity securities, licensing fees, royalties on product sales by our licensees, and borrowings. More recently, we have financed a portion of our operations with research grants and subscription fees for the database products marketed by our subsidiary LifeMap Sciences. Ultimately, our ability to generate sufficient operating revenue to earn a profit depends upon our success in developing and marketing or licensing our products and technology.

We will spend a substantial amount of our capital on research and development but we might not succeed in developing products and technologies that are useful in medicine

- We are attempting to develop new medical products and technologies.
- Many of our experimental products and technologies have not been applied in human medicine and have only been used in laboratory studies *in vitro* or in animals. These new products and technologies might not prove to be safe and efficacious in the human medical applications for which they were developed.
- The experimentation we are doing is costly, time consuming, and uncertain as to its results. We incurred research and development expenses amounting to $18,116,6881, $13,699,691, and $8,191,314 during the fiscal years ended December 31, 2012, 2011, and 2010, respectively.
- If we are successful in developing a new technology or product, refinement of the new technology or product and definition of the practical applications and limitations of the technology or product may take years and require the expenditure of large sums of money.
- Future clinical trials of new therapeutic products, particularly those products that are regulated as drugs or biological, will be very expensive and will take years to complete. We may not have the financial resources to fund clinical trials on our own and we may have to enter into licensing or collaborative arrangements with larger, well-capitalized pharmaceutical companies in order to bear the cost. Any such arrangements may be dilutive to our ownership or economic interest in the products we develop, and we might have to accept a royalty payment on the sale of the product rather than receiving the gross revenues from product sales.

Completion of the proposed acquisition of stem cell related assets by our subsidiary BAC from Geron Corporation will result in an increase in our operating expenses and losses on a consolidated basis

- BAC will use the stem cell assets that it will acquire from Geron for the research and development of products for regenerative medicine. BAC’s research and development efforts will involve substantial expense, including but not limited to hiring additional research and management personnel, and the rent of a new office and research facility, that will add to our losses on a consolidated basis for the near future.
- BAC will become a public company in connection with the completion of the asset contribution transaction under the Asset Contribution Agreement and the distribution of BAC Series A Common Stock by Geron to its stockholders. As a public company, BAC will incur costs associated with audits of its financial statements, filing annual, quarterly, and other periodic reports with the SEC, holding annual shareholder meetings, listing its common shares for trading, and public relations and investor relations. These costs will be in addition to those incurred by BioTime for similar purposes.
- As a developer of pharmaceutical products derived from hES or iPS cells, BAC will face substantially the same kind of risks that affect our business, as well as the risks related to our industry generally.

Our success depends in part on the uncertain growth of the stem cell industry, which is still in its infancy

- The success of our business of selling products for use in stem cell research depends on the growth of stem cell research, without which there may be no market or only a very small market for our research products and technology. The likelihood that stem cell research will grow depends upon the successful development of stem cell products that can be used to treat disease or injuries in people or that can be used to facilitate the development of other pharmaceutical products. The growth in stem cell research also depends upon the availability of funding through private investment and government research grants.

- There can be no assurance that any safe and efficacious human medical applications will be developed using stem cells or related technology

- Government-imposed restrictions and religious, moral, and ethical concerns with respect to use of embryos or human embryonic stem (hES) cells in research and development could have a material adverse effect on the growth of the stem cell industry, even if research proves that useful medical products can be developed using human embryonic stem cells.

Sales of our products to date have not been sufficient to generate an amount of revenue sufficient to cover our operating expenses

- *Hextend*® is presently the only plasma expander product that we have on the market, and it is being sold only in the U.S. and South Korea. The royalty revenues that we have received from sales of *Hextend*® have not been sufficient to pay our operating expenses. This means that we need to successfully develop and market or license additional products and earn additional revenues in sufficient amounts to meet our operating expenses.

- We will receive additional license fees and royalties if our licensees are successful in marketing *Hextend*® and *PentaLyte*® in Japan, Taiwan, and China, but they have not yet obtained the regulatory approvals required to begin selling those products.

- We are also beginning to bring our first stem cell research products to the market, but there is no assurance that we will succeed in generating significant revenues from the sale of those products.

Sales of the products we may develop will be adversely impacted by the availability of competing products

- Sales of *Hextend*® have already been adversely impacted by the availability of other products that are commonly used in surgery and trauma care and sell at low prices.

- In order to compete with other products, particularly those that sell at lower prices, our products will have to provide medically significant advantages.

- Physicians and hospitals may be reluctant to try a new product due to the high degree of risk associated with the application of new technologies and products in the field of human medicine.

- Competing products are being manufactured and marketed by established pharmaceutical companies. For example, B. Braun/McGaw presently markets *Hespan*®, an artificial plasma volume expander, and Hospira and Baxter International, Inc. manufacture and sell a generic equivalent of *Hespan*®. Hospira also markets Voluven®, a plasma volume expander containing a 6% low molecular weight hydroxyethyl starch in saline solution.

- Competing products for the diagnosis and treatment of cancer are being manufactured and marketed by established pharmaceutical companies, and more cancer diagnostics and therapeutics are being developed by those companies and by other smaller biotechnology companies. Other companies, both large and small, are also working on the development of stem cell based therapies for the same diseases and disorders that are the focus of the research and development programs of our subsidiaries.

- There also is a risk that our competitors may succeed at developing safer or more effective products that could render our products and technologies obsolete or noncompetitive.

We might need to issue additional equity or debt securities in order to raise additional capital needed to pay our operating expenses

- We plan to continue to incur substantial research and product development expenses, largely through our subsidiaries, and we and our subsidiaries will need to raise additional capital to pay operating expenses until we are able to generate sufficient revenues from product sales, royalties, and license fees.

- It is likely that additional sales of equity or debt securities will be required to meet our short-term capital needs, unless we receive substantial revenues from the sale of our new products or we are successful at licensing or sublicensing the technology that we develop or acquire from others and we receive substantial licensing fees and royalties.

- Sales of additional equity securities by us or our subsidiaries could result in the dilution of the interests of present shareholders.

The amount and pace of research and development work that we and our subsidiaries can do or sponsor, and our ability to commence and complete clinical trials required to obtain regulatory approval to market our pharmaceutical and medical device products, depends upon the amount of money we have

- At December 31, 2012, we had $4,349,967 of cash and cash equivalents on hand. Although we have raised an additional $13,431,430 of equity capital during 2013, there can be no assurance that we or our subsidiaries will be able to raise additional funds on favorable terms or at all, or that any funds raised will be sufficient to permit us or our subsidiaries to develop and market our products and technology. Unless we and our subsidiaries are able to generate sufficient revenue or raise additional funds when needed, it is likely that we will be unable to continue our planned activities, even if we make progress in our research and development projects.

- We have already curtailed the pace and scope of our plasma volume expander development efforts due to the limited amount of funds available, and we may have to postpone other laboratory research and development work unless our cash resources increase through a growth in revenues or additional equity investment or borrowing.

Our business could be adversely affected if we lose the services of the key personnel upon whom we depend

Our stem cell research program is directed primarily by our Chief Executive Officer, Dr. Michael West. BAC's stem cell research programs will be directed primarily by its Chief Executive Officer, Dr. Thomas Okarma, and by its President of Research and Development, Dr. Jane Lebkowski. The loss of the services of Dr. West, Dr. Okarma or Dr. Lebkowski could have a material adverse effect on us.

If we make strategic acquisitions, we will incur a variety of costs and might never realize the anticipated benefits

Our experience in independently identifying acquisition candidates and integrating their operations with our company is limited to our acquisitions of ESI in 2010, Glycosan and CTI in 2011, and XenneX in 2012. During January 2013 we entered into an agreement for our subsidiary BAC to acquire stem cell related assets from Geron. If appropriate opportunities become available, we might attempt to acquire approved products, additional drug candidates, technologies or businesses that we believe are a strategic fit with our business. If we pursue any transaction of that sort, the process of negotiating the acquisition and integrating an acquired product, drug candidate, technology or business might result in operating difficulties and expenditures and might require significant management attention that would otherwise be available for ongoing development of our business, whether or not any such transaction is ever consummated. Moreover, we might never realize the anticipated benefits of any acquisition. Future acquisitions could result in potentially dilutive issuances of equity securities, the incurrence of debt, contingent liabilities, or impairment expenses related to goodwill, and impairment or amortization expenses related to other intangible assets, which could harm our financial condition.

Failure of our internal control over financial reporting could harm our business and financial results

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting is a process to provide reasonable assurance regarding the reliability of financial reporting for external purposes in accordance with accounting principles generally accepted in the U.S. Internal control over financial reporting includes maintaining records that in reasonable detail accurately and fairly reflect our transactions; providing reasonable assurance that transactions are recorded as necessary for preparation of our financial statements; providing reasonable assurance that receipts and expenditures of our assets are made in accordance with management authorization; and providing reasonable assurance that unauthorized acquisition, use or disposition of our assets that could have a material effect on the financial statements would be prevented or detected on a timely basis. Because of its inherent limitations, internal control over financial reporting is not intended to provide absolute assurance that a misstatement of our financial statements would be prevented or detected. Our growth and entry into new products, technologies and markets will place significant additional pressure on our system of internal control over financial reporting. Any failure to maintain an effective system of internal control over financial reporting could limit our ability to report our financial results accurately and timely or to detect and prevent fraud.

Operating our business through subsidiaries, some of which are located in foreign countries, also adds to the complexity of our internal control over financial reporting and adds to the risk of a system failure, an undetected improper use or expenditure of funds or other resources by a subsidiary, or a failure to properly report a transaction or financial results of a subsidiary. We allocate certain expenses among BioTime itself and one or more of our subsidiaries, which creates a risk that the allocations we make may not accurately reflect the benefit of an expenditure or use of financial or other recourses by BioTime as the parent company and the subsidiaries among which the allocations are made. An inaccurate allocation may impact our consolidated financial results, particularly in the case of subsidiaries that we do not wholly own since our financial statements include adjustments to reflect the minority ownership interests in our subsidiaries held by others.

Our business and operations could suffer in the event of system failures

Despite the implementation of security measures, our internal computer systems and those of our contractors and consultants are vulnerable to damage from computer viruses, unauthorized access, natural disasters, terrorism, war and telecommunication and electrical failures. Such events could cause interruption of our operations. For example, the loss of data for our product candidates could result in delays in our regulatory filings and development efforts and significantly increase our costs. To the extent that any disruption or security breach was to result in a loss of or damage to our data, or inappropriate disclosure of confidential or proprietary information, we could incur liability and the development of our product candidates could be delayed.

Risks Related to Our Industry

We will face certain risks arising from regulatory, legal, and economic factors that affect our business and the business of other pharmaceutical development companies. Because we are a small company with limited revenues and limited capital resources, we may be less able to bear the financial impact of these risks than is the case with larger companies possessing substantial income and available capital.

If we do not receive regulatory approvals we will not be permitted to sell our pharmaceutical and medical device products

The pharmaceutical and medical device products that we and our subsidiaries develop cannot be sold until the FDA and corresponding foreign regulatory authorities approve the products for medical use. The need to obtain regulatory approval to market a new product means that:

- We will have to conduct expensive and time-consuming clinical trials of new products. The full cost of conducting and completing clinical trials necessary to obtain FDA approval of a new product cannot be presently determined, but could exceed our current financial resources.

- Clinical trials and the regulatory approval process for a pharmaceutical product can take several years to complete. As a result, we will incur the expense and delay inherent in seeking FDA and foreign regulatory approval of new products, even if the results of clinical trials are favorable.

- Data obtained from preclinical and clinical studies is susceptible to varying interpretations that could delay, limit, or prevent regulatory agency approvals. Delays in the regulatory approval process or rejections of NDAs may be encountered as a result of changes in regulatory agency policy.

- Because the therapeutic products we are developing with hES and iPS technology involve the application of new technologies and approaches to medicine, the FDA or foreign regulatory agencies may subject those products to additional or more stringent review than drugs or biologicals derived from other technologies.

- A product that is approved may be subject to restrictions on use.
- The FDA can recall or withdraw approval of a product if problems arise.
- We will face similar regulatory issues in foreign countries.

Clinical trial failures can occur at any stage of the testing and we may experience numerous unforeseen events during, or as a result of, the clinical trial process that could delay or prevent commercialization of our current or future drug candidates

Clinical trial 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 Independent Review Board ("IRB") and other regulatory approvals to commence a clinical trial;
- slower than anticipated rates of patient recruitment and enrollment, or failing to reach the targeted number of patients due to competition for patients from other trial,
- limited or no availability of coverage, reimbursement and adequate payment from health maintenance organizations and other third party payers for the use of agents used in our clinical trials;
- negative or inconclusive results from clinical trials;
- unforeseen side effects interrupting, delaying or halting clinical trials of our drug candidates and possibly resulting in the FDA or other regulatory authorities denying approval of our drug candidates;
- unforeseen safety issues;
- uncertain dosing issues;
- approval and intro introduction of new therapies or changes in standards of practice or regulatory 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 studies 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 certain dosing issues.

Government-imposed bans or restrictions and religious, moral, and ethical concerns about the use of hES cells could prevent us from developing and successfully marketing stem cell products

- Government-imposed bans or restrictions on the use of embryos or hES cells in research and development in the U.S. and abroad could generally constrain stem cell research, thereby limiting the market and demand for our products. During March 2009, President Obama lifted certain restrictions on federal funding of research involving the use of hES cells, and in accordance with President Obama's Executive Order, the NIH has adopted new guidelines for determining the eligibility of hES cell lines for use in federally funded research. The central focus of the proposed guidelines is to assure that hES cells used in federally funded research were derived from human embryos that were created for reproductive purposes, were no longer needed for this purpose, and were voluntarily donated for research purposes with the informed written consent of the donors. The hES cells that were derived from embryos created for research purposes rather than reproductive purposes, and other hES cells that were not derived in compliance with the guidelines, are not eligible for use in federally funded research.

- California law requires that stem cell research be conducted under the oversight of a SCRO committee. Many kinds of stem cell research, including the derivation of new hES cell lines, may only be conducted in California with the prior written approval of the SCRO. A SCRO could prohibit or impose restrictions on the research that we plan to do.

- The use of hES cells gives rise to religious, moral, and ethical issues regarding the appropriate means of obtaining the cells and the appropriate use and disposal of the cells. These considerations could lead to more restrictive government regulations or could generally constrain stem cell research, thereby limiting the market and demand for our products.

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 U.S. and in other countries. If we are unsuccessful at 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.

There is no certainty that our pending or future patent applications will result in the issuance of patents

- We have filed patent applications for technology that we have developed, and we have obtained licenses for a number of patent applications covering technology developed by others, that we believe will be useful in producing new products, and which we believe may be of commercial interest to other companies that may be willing to sublicense the technology for fees or royalty payments. In the future, we may also file additional new patent applications seeking patent protection for new technology or products that we develop ourselves or jointly with others. However, there is no assurance that any of our licensed patent applications, or any patent applications that we have filed or that we may file in the future covering our own technology, either in the U.S. or abroad, will result in the issuance of patents.

- In Europe, the European Patent Convention prohibits the granting of European patents for inventions that concern “uses of human embryos for industrial or commercial purposes.” The European Patent Office is presently interpreting this prohibition broadly, and is applying it to reject patent claims that pertain to hES cells. However, this broad interpretation is being challenged through the European Patent Office appeals system. As a result, we do not yet know whether or to what extent we will be able to obtain patent protection for our hES cell technologies in Europe.

- The recent Supreme Court decision in Mayo Collaborative Services v. Prometheus Laboratories, Inc., will need to be considered in determining whether certain diagnostic methods can be patented, since the Court denied patent protection for the use of a mathematical correlation of the presence of a well-known naturally occurring metabolite as a means of determining proper drug dosage. Our subsidiary OncoCyte is developing *PanC-Dx*™ as a cancer diagnostic test, based on the presence of certain genetic markers for a variety of cancers. Because *PanC-Dx*™ combines an innovative methodology with newly discovered compositions of matter, we are hopeful that this Supreme Court decision will not preclude the availability of patent protection for OncoCyte’s new product. However, like other developers of diagnostic products, we are evaluating this new Supreme Court decision and new guidelines issued by the PTO for the patenting of products that test for biological substances.

The process of applying for and obtaining patents can be expensive and slow

- The preparation and filing of patent applications, and the maintenance of patents that are issued, may require substantial time and money.

- A patent interference proceeding may be instituted with the PTO for patents or applications filed before March 16, 2013 when more than one person files a patent application covering the same technology, or if someone wishes to challenge the validity of an issued patent. At the completion of the interference proceeding, the PTO may determine which competing applicant is entitled to the patent, or whether an issued patent is valid. Patent interference proceedings are complex, highly contested legal proceedings, and the PTO's decision is subject to appeal. This means that if an interference proceeding arises with respect to any of our patent applications, we may experience significant expenses and delay in obtaining a patent, and if the outcome of the proceeding is unfavorable to us, the patent could be issued to a competitor rather than to us.

- After March 16, 2013 a derivation proceeding may be instituted by the PTO or an inventor alleging that a patent or application was derived from the work of another inventor.

- Post Grant Review under the new America Invents Act will make available after March 16, 2013 opposition-like proceedings in the United States. As with the PTO interference proceedings, Post Grant Review proceedings will be very expensive to contest and can result in significant delays in obtaining patent protection or can result in a denial of a patent application.

- Oppositions to the issuance of patents may be filed under European patent law and the patent laws of certain other countries. As with the PTO interference proceedings, these foreign proceedings can be very expensive to contest and can result in significant delays in obtaining a patent or can result in a denial of a patent application.

Our patents may not protect our products from competition

We or our subsidiaries have patents and patent applications pending in the U.S., Canada, the European Union countries, Australia, Israel, Russia, South Africa, South Korea, Japan, Hong Kong, and Singapore, and have filed patent applications in other foreign countries for our plasma volume expander products, certain stem cell products, *HyStem*® and other hydrogels, certain genes related to the development of cancer, and other technologies.

- We might not be able to obtain any additional patents, and any patents that we do obtain might not be comprehensive enough to provide us with meaningful patent protection.

- There will always be a risk that our competitors might be able to successfully challenge the validity or enforceability of any patent issued to us.

- In addition to interference proceedings, the PTO can re-examine issued patents at the request of a third party seeking to have the patent invalidated. This means that patents owned or licensed by us may be subject to re-examination and may be lost if the outcome of the re-examination is unfavorable to us. As of September 16, 2012 our patents may be subject to inter partes review, (replacing the inter partes reexamination proceeding) a proceeding in which a third party can challenge the validity of one of our patents.

We may be subject to patent infringement claims that could be costly to defend, which could 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 depends significantly on our ability to operate without infringing patents and other proprietary rights of others. 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 our product 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.

If we fail to meet our obligations under license agreements, we may lose our rights to key technologies on which our business depends

Our business depends on several critical technologies that are based in part on technology licensed from third parties. Those third-party license agreements impose obligations on us, including payment obligations and obligations to pursue development of commercial products under the licensed patents or technology. If a licensor believes that we have failed to meet our obligations under a license agreement, the licensor could seek to limit or terminate our license rights, which could lead to costly and time-consuming litigation and, potentially, a loss of the licensed rights. During the period of any such litigation, our ability to carry out the development and commercialization of potential products, and our ability to raise any capital that we might then need, could be significantly and negatively affected. If our license rights were restricted or ultimately lost, we would not be able to continue to use the licensed technology in our business.

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

Success in selling our pharmaceutical products may depend in part on the extent to which health insurance companies, HMOs, and government health administration authorities such as Medicare and Medicaid will pay for the cost of the products and related treatment. Presently, most health insurance plans and HMOs will pay for *Hextend*® when it is used in a surgical procedure that is covered by the plan. However, until we actually introduce a new product into the medical marketplace, we will not know with certainty whether adequate health insurance, HMO, and government coverage will be available to permit the product to be sold at a price high enough for us to generate a profit. In some foreign countries, pricing or profitability of health care products is subject to government control, which may result in low prices for our products. In the U.S., there have been a number of federal and state proposals to implement similar government controls, and new proposals are likely to be made in the future.

Risks Related to our Dependence on Third Parties

We may become dependent on possible future collaborations to develop and commercialize many of our product candidates and to provide the regulatory compliance, sales, marketing and distribution capabilities required for the success of our business.

We may enter into various kinds of collaborative research and development and product marketing agreements to develop and commercialize our products. The expected future milestone payments and cost reimbursements from collaboration agreements could provide an important source of financing for our research and development programs, thereby facilitating the application of our technology to the development and commercialization of our products, but there are risks associated with entering into collaboration arrangements.

There is a risk that we could become dependent upon one or more collaborative arrangements for product development or as a source of revenues from the sale of any products that may be developed by us alone or through one of the collaborative arrangements. A collaborative arrangement upon which we might depend might be terminated by our collaboration partner or they might determine not to actively pursue the development or commercialization of our products. A collaboration partner also may not be precluded from independently pursuing competing products and drug delivery approaches or technologies.

There is a risk that a collaboration partner might fail to perform its obligations under the collaborative arrangements or may be slow in performing its obligations. In addition, a collaboration partner may experience financial difficulties at any time that could prevent it from having available funds to contribute to the collaboration. If a collaboration partner fails to conduct its product development, commercialization, regulatory compliance, sales and marketing or distribution activities successfully and in a timely manner, or if it terminates or materially modifies its agreements with us, the development and commercialization of one or more product candidates could be delayed, curtailed or terminated because we may not have sufficient financial resources or capabilities to continue such development and commercialization on our own.

We have very limited experience in marketing, selling or distributing our products, and we may need to rely on marketing partners or contract sales companies.

Even if we are able to develop our products and obtain necessary regulatory approvals, we have very limited experience or capabilities in marketing, selling or distributing our products. We rely entirely on Hospira and CJ for the sale of *Hextend*®. We currently have only limited sales, marketing and distribution resources for selling our stem cell research products, and no marketing or distribution resources for selling any of the medical devices or pharmaceutical products that we are developing. Accordingly, we will be dependent on our ability to build our own marketing and distribution capability for our new products, which would require the investment of significant financial and management resources, or we will need to find collaborative marketing partners or sales representatives, or wholesale distributors for the commercial sale of our products.

If we market products through arrangements with third parties, we may pay sales commissions to sales representatives or we may sell or consign products to distributors at wholesale prices. As a result, our gross profit from product sales may be lower than it would be if we were to sell our products directly to end users at retail prices through our own sales force. There can be no assurance we will able to negotiate distribution or sales agreements with third parties on favorable terms to justify our investment in our products or achieve sufficient revenues to support our operations.

We do not have the ability to independently conduct clinical trials required to obtain regulatory approvals for our drug candidates.

We will need to rely on third parties, such as contract research organizations, data management companies, contract clinical research associates, medical institutions, clinical investigators and contract laboratories to conduct any clinical trials that we may undertake for our products. We may also rely on third parties to assist with our preclinical development of drug candidates. If we outsource clinical trial we may be unable to directly control the timing, conduct and expense of our clinical trials. If we enlist third parties to conduct clinical trials and they fail to successfully carry out their contractual duties or regulatory obligations or fail to meet expected deadlines, if the third parties need to be replaced or if the quality or accuracy of the data they obtain is compromised due to the failure to adhere to our clinical protocols or regulatory requirements or for other reasons, our preclinical development activities or clinical trials may be extended, delayed, suspended or terminated, and we may not be able to obtain regulatory approval for or successfully commercialize our drug candidates.

Risks Related to the Asset Contribution Agreement

BAC will assume Geron's appeal of two adverse patent rulings, and if the appeal is not successful, BAC may not realize value from the Geron patent applications at issue in the appeal and might be precluded from developing therapies to treat certain diseases, such as diabetes.

At the closing of the asset contribution transaction under the Asset Contribution Agreement, BAC will be substituted for Geron as a party in interest in an appeal filed by Geron in the United States District Court for the Northern District of California, appealing two adverse rulings in favor of ViaCyte, Inc. (formerly Novocell Inc.) by the United States Patent and Trademark Office's Board of Patent Appeals and Interferences. These rulings related to interference proceedings involving patent filings relating to definitive endoderm cells. Geron had requested that the Board of Patent Appeals and Interferences declare this interference after ViaCyte was granted patent claims that conflicted with subject matter Geron filed in a patent application having an earlier priority date. Those Geron patent applications are among the patent assets that Geron will contribute to BAC. BAC will assume all liabilities arising with respect to the ViaCyte Appeal, other than expenses incurred by Geron relating to the ViaCyte Appeal prior to the closing of the asset contribution transaction. Appeals of this nature may involve costly and time-consuming legal proceedings and if BAC is not successful in the appeal, these rulings may prevent or limit development of BAC product candidates in certain fields such as diabetes treatment and BAC may be unable to realize value from the patent applications at issue in the appeal.

We and BAC may be unable to complete the asset contribution transaction under the Asset Contribution Agreement, and failure to complete the transaction could adversely affect the market price of our common shares, our reputation, and our ability to obtain financing and, under certain circumstances, may result in our being required to pay a $1,800,000 termination fee to Geron.

We may be unable to complete the asset contribution transaction if the conditions to closing the transaction specified in the Asset Contribution Agreement are not satisfied, including if our shareholders do not approve the Shareholder Proposals.

The price at which our common shares trade on the NYSE MKT, and the daily trading volume, increased significantly after we announced the signing of the Asset Contribution Agreement. If the asset contribution transaction does not close, as a result of our shareholders failing to approve the Shareholder Proposals or for any other reason, the trading price of our common shares could be immediately adversely affected.

Failure to close the asset contribution transaction could also harm our reputation and we may be viewed as a less attractive investment by investors.

Failure of our shareholders to approve the Shareholder Proposals, a withdrawal of our Board of Directors' recommendation in favor of those proposals, or a material breach of a Support Agreement, will, under most circumstances, result in our being required to pay a $1,800,000 termination fee to Geron upon termination of the Asset Contribution Agreement.

We could be liable to indemnify Geron for certain liabilities and must also bear the cost of an insurance policy for the benefit of Geron.

We and BAC have agreed to indemnify Geron from and against certain liabilities relating to (a) Geron's distribution of the BAC Series A common stock to Geron's stockholders, (b) BAC's distribution of the Contribution Warrants to the holders of BAC Series A common stock and (c) any distribution of securities by BAC to the holders of the BAC Series A common stock within one year following the closing under the Asset Contribution Agreement, from the date of the first effective date of either of the Registration Statements through the fifth anniversary of the earliest to occur of the date on which all of the Contribution Warrants have either expired, or been exercised, cancelled or sold. We have also agreed to use our reasonable best efforts to obtain at our cost and expense prior to the closing under the Asset Contribution Agreement a policy of insurance to provide $10,000,000 of coverage for those indemnification obligations for a period of five years. The cost of obtaining and maintaining the insurance policy in place for five years could be significant, and the insurance would be for the benefit of Geron and its affiliates.

We and BAC have also agreed to indemnify Geron, from and against certain expenses, losses, and liabilities arising from, among other things, breaches of our or BAC's representations, warranties and covenants under the Asset Contribution Agreement. The maximum damages that may be recovered by either party for a loss under this indemnification related to representations, warranties and covenants, with limited exceptions, is limited to $2 million.

Completing the asset contribution transaction may divert our management's attention away from ongoing operations and could adversely affect ongoing operations and business relationships.

Completing the asset contribution transaction will require a significant amount of time and attention from our management. Moreover, after the closing of transaction, our management will be required to provide more management attention to BAC. The diversion of our management's attention away from our other operations could adversely affect our operations and business relationships that do not relate to BAC.

Risks Pertaining to Our Common Shares

Ownership of our common shares will entail certain risks associated with the volatility of prices for our common shares and the fact that we do not pay dividends.

Because we are engaged in the development of medical and stem cell research products, the price of our common shares may rise and fall rapidly

- The market price of our common shares, like that of the shares of many biotechnology companies, has been highly volatile.
- The price of our common shares may rise rapidly in response to certain events, such as the commencement of clinical trials of an experimental new therapy or medical device, even though the outcome of those trials and the likelihood of ultimate FDA or foreign regulatory approval remain uncertain.
- Similarly, prices of our common shares may fall rapidly in response to certain events such as unfavorable results of clinical trials or a delay or failure to obtain FDA or foreign regulatory approval.
- The failure of our earnings to meet analysts' expectations could result in a significant rapid decline in the market price of our common shares.

Current economic and stock market conditions may adversely affect the price of our common shares

The stock market has been experiencing extreme price and volume fluctuations which have affected the market price of the equity securities without regard to the operating performance of the issuing companies. Broad market fluctuations, as well as general economic and political conditions, may adversely affect the market price of the common shares.

Because we do not pay dividends, our common shares may not be a suitable investment for anyone who needs to earn dividend income

We do not pay cash dividends on our common shares. For the foreseeable future, we anticipate that any earnings generated in our business will be used to finance the growth of our business and will not be paid out as dividends to our shareholders. This means that our stock may not be a suitable investment for anyone who needs to earn income from their investments.

Securities analysts may not initiate coverage or continue to cover our common shares and this may have a negative impact on the market price of our shares

The trading market for our common shares will depend, in part, on the research and reports that securities analysts publish about our business and our common shares. We do not have any control over these analysts. There is no guarantee that securities analysts will cover our common shares. If securities analysts do not cover our common shares, the lack of research coverage may adversely affect the market price of those shares. If securities analysts do cover our shares, they could issue reports or recommendations that are unfavorable to the price of our shares, and they could downgrade a previously favorable report or recommendation, and in either case our share price could decline as a result of the report. If one or more of these analysts does not initiate coverage, ceases to cover our shares or fails to publish regular reports on our business, we could lose visibility in the financial markets, which could cause our share price or trading volume to decline.

You may experience dilution of your ownership interests because of the future issuance of additional common and preferred shares by us and our subsidiaries

In the future, we may issue our authorized but previously unissued equity securities, resulting in the dilution of the ownership interests of our present shareholders. We are currently authorized to issue an aggregate of 76,000,000 shares of capital stock consisting of 75,000,000 common shares and 1,000,000 “blank check” preferred shares. As of March 14, 2013, there were 54,906,793 common shares outstanding 4,771,301 common shares reserved for issuance upon the exercise of outstanding options under our employee stock option plans; and 816,612 shares reserved for issuance upon the exercise of common share purchase warrants. No preferred shares are presently outstanding.

We expect to issue a minimum of 8,902,077 common shares and a maximum of 11,463,464 common shares to BAC under the Asset Contribution Agreement. We also expect to issue 8,000,000 common share purchase warrants to BAC under the Asset Contribution Agreement.

We also plan to issue 810,000 additional common shares and 389,998 common share purchase warrants to an investor under a Stock and Warrant Purchase Agreement concurrently with the consummation of the asset contribution transactions under the Asset Contribution Agreement.

The operation of some of our subsidiaries has been financed in part through the sale of capital stock in those subsidiaries to private investors. Sales of additional subsidiary shares could reduce our ownership interest in the subsidiaries, and correspondingly dilute our shareholder’s ownership interests in our consolidated enterprise. Our subsidiaries also have their own stock option plans and the exercise of subsidiary stock options or the sale of restricted stock under those plans would also reduce our ownership interest in the subsidiaries, with a resulting dilutive effect on the ownership interest of our shareholders in our consolidated enterprise.

We and our subsidiaries may issue additional common shares or other securities that are convertible into or exercisable for common shares in order to raise additional capital, or in connection with hiring or retaining employees or consultants, or in connection with future acquisitions of licenses to technology or rights to acquire products in connection with future business acquisitions, or for other business purposes. The future issuance of any such additional common shares or other securities may create downward pressure on the trading price of our common shares.

We may also issue preferred shares having rights, preferences, and privileges senior to the rights of our common shares with respect to dividends, rights to share in distributions of our assets if we liquidate our company, or voting rights. Any preferred shares may also be convertible into common shares on terms that would be dilutive to holders of common shares. Our subsidiaries may also issue their own preferred shares with a similar dilutive impact on our ownership of the subsidiaries.

The market price of our common shares could be impacted by the issuance of the common shares and warrants to BAC and to an investor

Under the Asset Contribution Agreement and subject to closing, we have agreed to issue to BAC a minimum of 8,902,077 common shares, and a maximum of 11,463,464 common shares, and 8,000,000 common share purchase warrants. We have also issued 540,000 common shares and 259,999 warrants to an investor under a Stock and Warrant Purchase Agreement and we have agreed to issue to that investor an additional 810,000 common shares and 389,998 warrants. BAC and the investor may sell the common shares that they will receive from us. Those sales may take place from time to time on the NYSE MKT and may create downward pressure on the trading price of our common shares.

BAC expects to distribute the warrants it receives from us to the future holders of its Series A common stock. The warrants we issue to BAC will be exercisable for a period of five years at an exercise price of $5.00 per share, subject to adjustment for certain stock splits, reverse stock splits, stock dividends, recapitalizations and other transactions. The warrants we issue to the investor will be exercisable for a period of three years at an exercise price of $5.00 per share, subject to adjustment for certain stock splits, reverse stock splits, stock dividends, recapitalizations and other transactions. During the period that the warrants are outstanding, the actual or potential exercise of those warrants and sale of the underlying common shares may create downward pressure on the trading price of our common shares.

The market price of our common shares could be impacted by prices at which we sell shares in our subsidiaries

The operation of some our subsidiaries has been financed in part through the sale of capital stock in those subsidiaries, and our subsidiaries may sell shares of their capital stock in the future for financing purposes. The prices at which our subsidiaries may sell shares of their capital stock could impact the value of our company as a whole and could impact the price at which our common shares trade in the market. A sale of capital stock of any of our subsidiaries at a price that the market perceives as low could adversely impact the market price of our common shares. Even if our subsidiaries sell their capital stock at prices that reflect arm's length negotiation with investors, there is no assurance that those prices will reflect a true fair market value or that the ascribed value of the subsidiary based on those share prices will be fully reflected in the market value of our common shares.

Item 1B. Unresolved Staff Comments

None

Item 2. Properties

Our offices and laboratory facilities are located at 1301 Harbor Bay Parkway, in Alameda, California, where we occupy approximately 19,000 square feet of office and research laboratory space. The facility is cGMP-capable and has previously been certified as Class 1,000 and Class 10,000 laboratory space, and includes cell culture and manufacturing equipment previously validated for use in cGMP manufacture of cell-based products. We will use the laboratory facility for the production of hEPCs, and products derived from them.

Base monthly rent for this facility is $29,856 from December 2012 and will increase by three percent each year. In addition to the base rent, we pay a pro rata share of real property taxes and certain costs associated to the operation and maintenance of the building in which the leased premises are located.

We also currently pay $5,050 per month for the use of approximately 900 square feet of office space in New York City, which is made available to us by one of our directors at his cost for use in conducting meetings and other business affairs.

We have entered into a lease for an office and research facility located in, Menlo Park, California that we plan to make available for use by our subsidiary BioTime Acquisition Corporation. The building on the leased premises contains approximately 24,080 square feet of space. The lease is for a term of three years commencing January 7, 2013. We will pay base rent of $31,785.60 per month, plus real estate taxes and certain costs of maintaining the leased premises.

ESI leases approximately 1,290 square feet of laboratory space and leased approximately 590 square feet of office space in the Biopolis, a research and development park in Singapore devoted to the biomedical sciences. ESI paid on average approximately $7,100 as base monthly rent for the laboratory space and $1,800 as base monthly rent for the office space. The office space lease expired on October 31, 2012 and was not renewed. In addition to base rent, ESI pays a pro rata share of real property taxes and certain costs related to the operation and maintenance of the building in which the leased premises are located.

Cell Cure Neurosciences leases approximately 290 square meters of office and laboratory space located at Hadasa Ein Carem, in Jerusalem, Israel. Base monthly rent for this facility is approximately $8,800. In addition to base rent, Cell Cure Neurosciences pays a pro rata share of real property taxes and certain costs related to the operation and maintenance of the building in which the leased premises are located.

LifeMap Sciences leases approximately 259 square meters of office space in Tel Aviv, Israel. The lease expired on April 30, 2012. Base monthly rent under that lease was $4,000 per month. The lease was renewed with additional space effective June 1, 2012 through May 31, 2015. Base monthly rent under the renewed lease is currently $5,550 per month. The original lease was extended through May 31 as the new space was not ready on May 1. In addition to base rent, LifeMap pays a pro rata share of real property taxes and certain costs related to the operation and maintenance of the building in which the leased premises are located.

LifeMap Sciences also currently leases office space in Hong Kong. Base monthly rent under the lease is approximately $825 per month for the use of approximately 80 square feet of office space. In addition to base rent, LifeMap pays certain costs related to the operation of the building in which the leased premises are located.

LifeMap Sciences also currently leases office space in Marshfield, Massachusetts. Base monthly rent under the lease is approximately $1,100 per month for the use of approximately 750 square feet of office space. The lease was assumed in connection with the merger with XenneX which occurred in May 2012.

On January 8, 2013, we entered into a lease for an office and research facility located at 230 Constitution Drive, Menlo Park, California that are subleasing to BAC. The building on the leased premises contains approximately 24,080 square feet of space. The lease is for a term of three years commencing January 7, 2013. We will pay base rent of $31,786 per month, plus real estate taxes and certain costs of maintaining the leased premises. As additional consideration for the lease, we issued to the landlord BioTime common shares having a market value of $242,726, determined based upon the average closing price of our common shares on the NYSE MKT for a designated period of time prior to the signing of the lease. We agreed to register those shares under the Securities Act and if it fails to file a registration statement for such purpose within 120 days the landlord will have a right to return the shares to us, in which case the base rent will increase to $38,528 per month, retroactive to the commencement date of the lease.

Item 3. Legal Proceedings

We are not presently involved in any material litigation or proceedings, and to our knowledge no such litigation or proceedings are contemplated. However, upon consummation of the asset acquisition transaction under the Asset Contribution Agreement, BAC will be substituted as the appellant in an appeal of certain decisions of the PTO in two patent interference proceedings that were brought by Geron against Viacyte, Inc.

Item 4. Mine Safety Disclosures

Not applicable

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters, and Issuer Purchases of Equity Securities

Our common shares are traded on the NYSE MKT under the ticker symbol BTX. The following table sets forth the range of high and low closing prices for our common shares for the fiscal years ended December 31, 2011 and 2012 as reported by the NYSE MKT:

The following table sets forth the range of high and low closing prices for our common shares for the fiscal years ended December 31, 2011 and 2012 as reported by the NYSE MKT:

Quarter Ended	High	Low
March 31, 2011	9.50	6.53
June 30, 2011	7.73	4.15
September 30, 2011	5.70	4.34
December 31, 2011	6.02	3.74
March 31, 2012	6.12	4.41
June 30, 2012	4.79	3.47
September 30, 2012	4.98	3.81
December 31, 2012	4.40	2.91

On March 14, 2013 the closing price of our common stock reported on the NYSE MKT was $4.41 per share.

As of February 5, 2013, there were 15,138 holders of the common shares based on the share position listing.

The following table shows certain information concerning the options and warrants outstanding and available for issuance under all of our compensation plans and agreements as of December 31, 2012:

Plan Category	Number of Shares to be Issued upon Exercise of Outstanding Options, Warrants, and Rights	Weighted Average Exercise Price of the Outstanding Options, Warrants, and Rights	Number of Shares Remaining Available for Future Issuance under Equity Compensation Plans
BioTime Equity Compensation Plans Approved by Shareholders	3,381,301	$ 1.85	-
BioTime Equity Compensation Plans Not Approved by Shareholders*	255,000	$ 3.45	3,745,000

*The 2012 Equity Incentive Plan which has not yet been approved by the BioTime shareholders.

The following table shows certain information concerning the options outstanding and available for issuance under all of the compensation plans and agreements for our subsidiary companies as of December 31, 2012:

Plan Category	Number of Shares to be Issued upon Exercise of Outstanding Options, Warrants, and Rights	Weighted Average Exercise Price of the Outstanding Options, Warrants, and Rights	Number of Shares Remaining Available for Future Issuance under Equity Compensation Plans
OrthoCyte Equity Compensation Plans Approved by Shareholders**	2,605,000	$ 0.09	1,395,000
OncoCyte Equity Compensation Plans Approved by Shareholders**	2,730,000	$ 0.75	1,270,000
ReCyte Therapeutics Equity Compensation Plans Approved by Shareholders**	1,550,000	$ 2.05	2,450,000
BioTime Asia Equity Compensation Plans Approved by Shareholders**	400	$ .01	1,200
Cell Cure Neurosciences Compensation Plans Approved by Shareholders**	12,240	$ 23.93	1,860
LifeMap Sciences Equity Compensation Plans Approved by Shareholders**	918,773	$ 1.20	923,496

**BioTime is the majority shareholder.

Additional information concerning our stock option plan and the stock options of our subsidiaries may be found in Note 10 to the Consolidated Financial Statements.

Dividend Policy

We have never paid cash dividends on our capital stock and do not anticipate paying cash dividends in the foreseeable future, but intend to retain our capital resources for reinvestment in our business. Any future determination to pay cash dividends will be at the discretion of our Board of Directors and will be dependent upon our financial condition, results of operations, capital requirements and other factors as the Board of Directors deems relevant.

Performance Measurement Comparison (1)

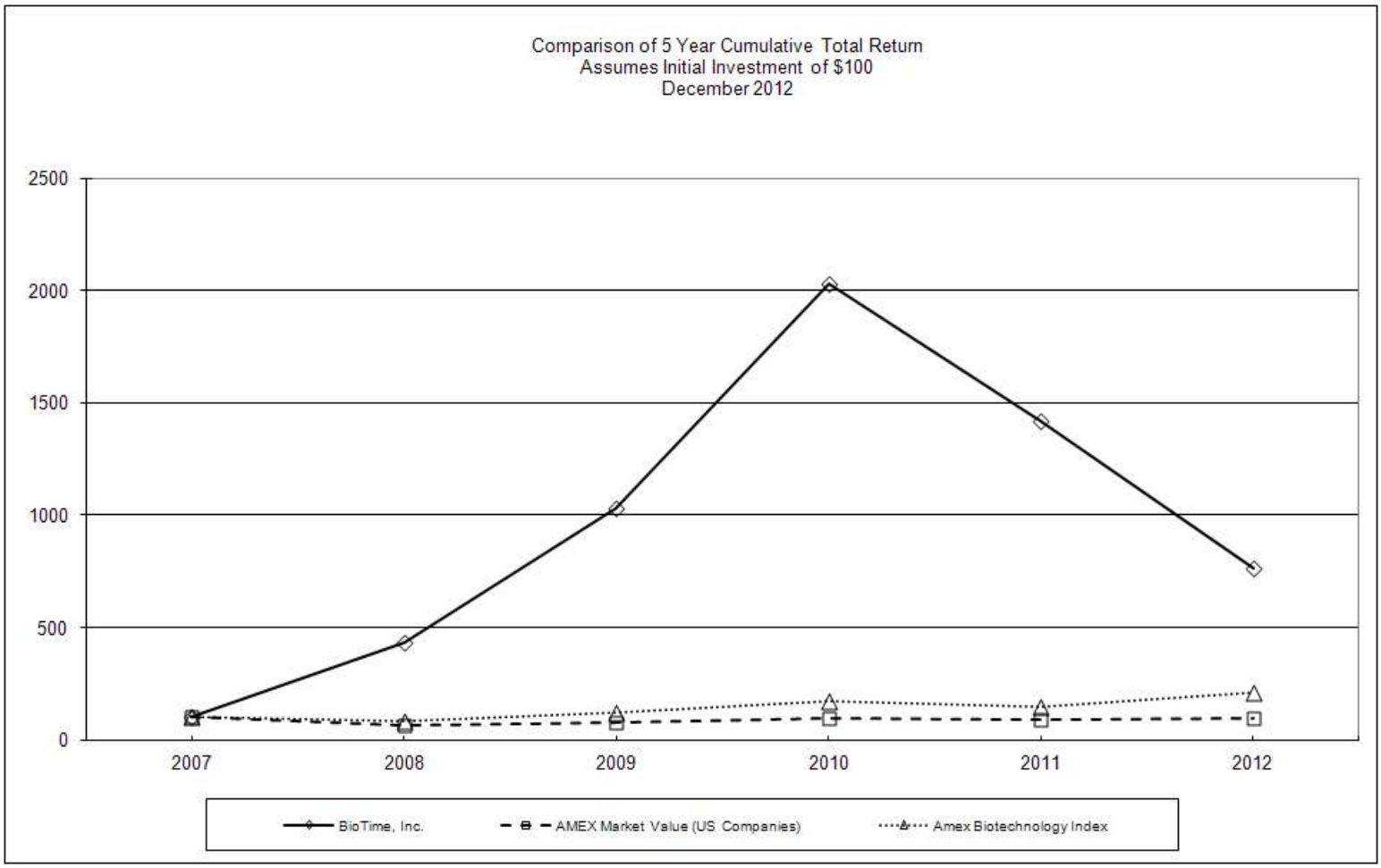
The following graph compares total stockholder returns of BioTime, Inc. for the last five fiscal years beginning December 31, 2007 to two indices: the NYSE Amex Market Value – U.S. Companies (Amex Market Value) and the NYSE Amex Biotechnology Index (Amex Biotechnology Index). The total return for our stock and for each index assumes the reinvestment of dividends, although we have never declared dividends on BioTime stock, and is based on the returns of the component companies weighted according to their capitalizations as of the end of each quarterly period. The NYSE Amex Market Value tracks the aggregate price performance of equity securities of U.S. companies listed therein. The NYSE Amex Biotechnology Index represents biotechnology companies, trading on NYSE MKT (formerly NYSE Amex) under the Standard Industrial Classification (SIC) Code Nos. 283 (Drugs) and 382 (Laboratory Apparatus and Analytical, Optical) main categories (2834:Pharmaceutical Preparations; 2835: Diagnostic Substances; 2836: Biological Products; 3826: Laboratory Analytical Instruments; and 3829: Measuring & Controlling Devices). BioTime common stock trades on the NYSE MKT (formerly NYSE Amex) and is a component of the NYSE Amex Market Value – US Companies.

Comparison of Five-Year Cumulative Total Return on Investment

		2007	2008	2009	2010	2011	2012
BioTime, Inc.	Return %		331.63	138.98	96.93	-30.24	-45.96
	Cum $	100.00	667.89	1,596.13	3,143.22	2,192.56	765.76
AMEX Market Value (US Companies)	Return %		-36.26	22.30	27.22	-8.89	9.61
	Cum $	100.00	66.04	80.76	102.75	93.61	99.04
Amex Biotechnology Index	Return %		-17.71	45.56	45.23	-15.85	41.88
	Cum $	100.00	85.79	124.88	181.37	152.63	207.71

BioTime, Inc., the Amex Market Value and Amex Biotechnology Index (2)

(1) This Section is not "soliciting material," is not deemed "filed" with the SEC and is not to be incorporated by reference in any filing of BioTime under the Securities Act of 1933, or the Securities Exchange Act of 1934, whether made before or after the date hereof and irrespective of any general incorporation language in any such filing.



(2) Shows the cumulative total return on investment assuming an investment of $100 in each of BioTime, Inc., the Amex Market Value and Amex Biotechnology Index on December 31, 2007. The cumulative total return on BioTime stock has been computed based on a price of $0.41 per share, the price at which BioTime's shares closed on December 31, 2007.

Item 6. Selected Financial Data

	Year Ended December 31,				
	2012	2011	2010	2009	2008
Consolidated Statements of Operations Data:					
REVENUES:					
License fees	$ 899,998	$ 263,757	$ 292,904	$ 292,904	$ 277,999
Royalties from product sales	541,681	756,950	945,521	1,079,951	1,203,453
Grant income	2,222,458	2,767,181	2,336,325	546,795	-
Sales of research products	251,190	646,271	133,268	5,590	22,340
Total revenues	3,915,327	4,434,159	3,708,018	1,925,240	1,503,792
Cost of sales	(434,271)	(79,397)	(27,718)	(72)	-
Total revenues, net	3,481,056	4,354,762	3,680,300	1,925,168	1,503,792
EXPENSES:					
Research and development	(18, 116,688)	(13,699,691)	(8,191,314)	(3,181,729)	(1,895,241)
General and administrative	(10,365,045)	(9,341,502)	(5,341,119)	(2,263,705)	(2,431,183)
Total expenses	(28,481,733)	(23,041,193)	(13,532,433)	(5,445,434)	(4,326,424)
Loss from operations	(25,000,677)	(18,686,431)	(9,852,133)	(3,520,266)	(2,822,632)
OTHER INCOME (EXPENSES):					
Interest income/(expense)	19,383	29,727	(124,300)	(1,653,755)	(965,781)
Gain/(loss) on sale of fixed assets	(6,856)	(6,246)	-	-	-
Modification cost of warrants	-	-	(2,142,201)	-	-
Other income/(expense), net	(317,710)	219,067	(68,573)	30,112	7,518
Total other income/(expenses), net	(305,183)	242,548	(2,335,074)	(1,623,643)	(958,263)
NET LOSS	(25,305,860)	(18,443,883)	(12,187,207)	(5,143,909)	$ (3,780,895)
Net loss/(income) attributable to the noncontrolling interest	3,880,157	1,928,383	1,002,589	(590)	-
Net loss attributable to BioTime, Inc.	(21,425,703)	(16,515,500)	(11,184,618)	(5,144,499)	(3,780,895)
Foreign currency translation (loss)/gain	63,179	(1,020,087)	897,338	-	-
COMPREHENSIVE NET LOSS	$ (21,362,524)	$ (17,535,587)	$ (10,287,280)	$ (5,144,499)	$ (3,780,895)
BASIC AND DILUTED LOSS PER COMMON SHARE	$ (0.44)	$ (0.35)	$ (0.28)	$ (0.18)	$ (0.16)
WEIGHTED AVERAGE NUMBER OF COMMON SHARES OUTSTANDING:BASIC AND DILUTED	49,213,687	47,035,518	40,266,311	29,295,608	23,749,933

	December 31,				
	2012	2011	2010	2009	2008
Consolidated Balance Sheet Data:					
Cash and cash equivalents	$ 4,349,967	$ 22,211,897	$ 33,324,924	$ 12,189,081	$ 12,279
Total assets	29, 748,593	45,829,695	53,272,659	13,433,071	1,035,457
Long-term liabilities	1,063,388	1,224,859	1,367,045	1,223,823	2,003,754
Accumulated deficit	(101,895,712)	(80,470,009)	(63,954,509)	(52,769,891)	(47,625,392)
Total equity/(deficit)	$ 24,294,373	$ 41,458,181	$ 49,425,657	$ 11,046,989	$ (4,346,814)

We entered the regenerative medicine and stem cell research fields during the fourth quarter of 2007. Prior to that time, our research and product development efforts focused exclusively on our blood plasma volume expander products, particularly *Hextend*® and *PentaLyte*®.

Our consolidated statement of operations data and balance sheet data for the year ended December 31, 2012 reflect our merger with XenneX during the year. See Notes 15 and 22 to Consolidated Financial Statements.

Our consolidated statement of operations data and balance sheet data for the year ended December 31, 2011 reflect asset acquired from CTI and merger with Glycosan during the year. See Notes 13, 14 and 22 to Consolidated Financial Statements.

Our consolidated statement of operations data and balance sheet data for the year ended December 31, 2010 reflect our acquisition of ESI and a majority interest in Cell Cure Neurosciences during the year. See Notes 11 and 12 to Consolidated Financial Statements.

Grant income and research and development expenses during 2011 and 2012 reflect our receipt of research grant payments from CIRM, from the Office of the Chief Scientist of the Ministry of Industry, Trade, and Labor of Israel, from the National Institutes of Health, and from the Ministry of Absorption of Israel.

We did not amortize deferred license fees during the years ended December 31, 2008 and 2009 on the basis that sales of products under the licenses had not yet begun. Because BioTime has modified its procedure for amortizing deferred license fees for the year ended December 31, 2010, we have recorded in research and development expenses for 2010 an additional $121,200, representing the amortization amounts not previously recorded in 2008 and 2009. See Note 6 to Consolidated Financial Statements.

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

The following Management's Discussion and Analysis of Financial Condition and Results of Operations is intended to provide information necessary to understand our audited consolidated financial statements for the two-year period ended December 31, 2012, and highlight certain other information which, in the opinion of management, will enhance a reader's understanding of our financial condition, changes in financial condition and results of operations. In particular, the discussion is intended to provide an analysis of significant trends and material changes in our financial position and the operating results of our business during the year ended December 31, 2012 as compared to the year ended December 31, 2011, and during the year ended December 31, 2011 as compared to the year ended December 31, 2010. This discussion should be read in conjunction with our consolidated financial statements for the two-year period ended December 31, 2012 and related notes included elsewhere in this Annual Report on Form 10-K. These historical financial statements may not be indicative of our future performance. This Management's Discussion and Analysis of Financial Condition and Results of Operations contains a number of forward-looking statements, all of which are based on our current expectations and could be affected by the uncertainties and risks described throughout this filing, particularly in "Item 1A. Risk Factors."

Stem Cells and Products for Regenerative Medicine Research

We have designated our subsidiary LifeMap Sciences as our primary internet marketing arm for our research products. In addition to offering subscriptions to its database products, LifeMap Sciences is also utilizing its databases as part of its strategy for marketing our research products online to reach life sciences researchers at biotech and pharmaceutical companies and at academic institutions and research hospitals worldwide. The *LifeMap Discovery*™ data base provides access to available cell-related information and resources necessary to improve stem cell research and development of therapeutics based on regenerative medicine and may promote the sale of our *PureStem*™ hEPC by permitting data base users to follow the development of hES cell lines to the purified hEPC state.

Plasma Volume Expander Products

Royalties and licensing fees related to our plasma volume expander products, primarily *Hextend*®, comprise a significant part of our operating revenues. *Hextend*® has become the standard plasma volume expander at a number of prominent teaching hospitals and leading medical centers and is part of the Tactical Combat Casualty Care protocol of the U.S. Armed Forces.

Under our license agreements, Hospira and CJ will report sales of *Hextend*® and pay us the royalties and license fees due on account of such sales after the end of each calendar quarter. We recognize revenues in the quarter in which the sales report is received, rather than the quarter in which the sales took place.

Royalties on sales of *Hextend*® that occurred during the fourth quarter of 2011 through the third quarter of 2012 are reflected in our financial statements for the year ended December 31, 2012. We received $429,353 in royalties from *Hextend*® sales by Hospira during 2012. Royalties for 2012 decreased 32% from $630,858 in royalties from Hospira on *Hextend*® sales in 2011. In addition, we received royalties from CJ in the amount of $111,940 for the period ended December 31, 2012; representing a 9% decrease from $122,351 in royalties received for the period ended December 31, 2011.

Based on sales of *Hextend*® that occurred during the fourth quarter of 2012, we received royalties of $88,946 from Hospira and $18,652 from CJ during the first quarter of 2013. Total royalties of $107,598 for the quarter decreased 27% from royalties of $147,402 received during the same period last year. These royalties will be reflected in our financial statements for the first quarter of 2013.

The decrease in royalties is attributable to a decrease in *Hextend*® sales in the U.S. and in the Republic of Korea. The decrease in royalties received from Hospira based on sales during the previous quarter is generally due to the decline in the price of hetastarch-based products in the market. The blood volume expander marketing is shrinking overall and hospitals have shifted their purchases to albumin products. Hospira has reported that they have seen a rapid decline in the price of hetastarch-based plasma expanders in the market which could continue to have a negative impact on revenues from the sale of *Hextend*®. Hospira implemented further price reductions for *Hextend*® during 2012 in an attempt to maintain market share.

During the year ended December 31, 2006, we received $500,000 from Summit for the right to co-develop *Hextend*® and *PentaLyte*® in Japan, China, and Taiwan. A portion of the cash payment is a partial reimbursement of BioTime's development costs of *Hextend*® and a portion is a partial reimbursement of BioTime's development costs of *PentaLyte*®. This payment is reflected on our balance sheet as deferred revenue.

Research and Development Programs in Regenerative Medicine and Stem Cell Research

We entered the fields of stem cell research and regenerative medicine during October 2007. From that time through 2009, our activities in those fields included acquiring rights to market stem cell lines, pursuing patents, planning future products and research programs, applying for research grants, identifying the characteristics of various acquired progenitor and stem cell lines, negotiating a product distribution agreement, organizing new subsidiaries to address particular fields of product development, and planning and launching our first product development programs.

The following table summarizes the most significant achievements in our primary research and development programs in stem cell research and regenerative medicine during the last fiscal year.

Company	Program	Status
BioTime[(1)] and ES Cell International Pte. Ltd. ("ESI")	*PureStem*™ cell lines/growth media/reagent kits for stem cell research GMP hES cell lines	Nearly 300 products for stem cell research are now being offered, including *PureStem*™ hEPCs, *ESpan*™ cell line optimal growth media, and reagent cell differentiation kits. We plan to add additional cell lines, growth media, and differentiation kits with characterization of new hEPCs ESI has developed and offers for sale GMP hES cell lines for research purposes. Six ESI hES cell lines have been approved by the NIH for use in federally funded research.
BioTime [(1)]	CIRM-funded research project addressing the need for industrial-scale production of purified therapeutic cells [(2)]	Conducted long-term stability studies of hEPCs using commercial-type culture processes to demonstrate phenotypic stability and genotypic stability during culture expansion. Attempting to define a molecular signature of cell surface markers that would be unique to a given hEPC cell line to permit development of reagents to those markers that can be used to purify the target hEPCs intended for therapy. Mapping cell surface protein expression directly on hEPCs using large collections of commercially available antibodies and have begun testing those antibodies as affinity reagents for purifying target hEPCs. Identifying peptide reagents that show specificity for cell surface targets on hEPCs and could thus be used directly as affinity reagents.

Company	Program	Status
BioTime [1]	Biocompatible hydrogels that mimic the human extracellular matrix	Demonstrated that those cell lines can be combined with BioTime's *Renevia*™ matrices to formulate a combination product for treating cartilage deficits. Developed *Extralink*®, *PEGgel*™, and *HyStem*® hydrogel products for basic laboratory research use Conducted pre-clinical development of *Renevia*™ as an implantable cell delivery device Conducted toxicology studies of *Renevia*™ in the brains of laboratory mice. Results show no difference in reactive astrocytes, macrophages/microglia, neuronal number or blood vessel structure between saline controls and *Renevia*™. There was no evidence of granulomata or foreign body reaction around either saline or *Renevia*™ injection sites. Two U.S. patents issued on hydrogels
	Hextend® – Blood plasma volume expanders	*Hextend*® is currently marketed to hospitals and physicians in the U.S. and Korea. Activities include complying with all regulatory requirements and promotional activities.
OncoCyte [3]	Vascular endothelial cells that can be engineered to deliver a toxic payload to the developing blood vessels of a tumor	Developed a derivation protocol that can reproducibly produce populations of endothelial cells with levels of purity and efficiency above those reported in the published literature. Established broad range of support assays to monitor and measure vascular endothelial cell differentiation process. Initiated in vivo experiments monitoring incorporation of endothelial cells into developing mouse vasculature and into the developing vasculature of human tumor xenografts.
	Genetic markers for cancer diagnosis	Completed initial development of a toxic payload transgene system which can be induced at the site of tumors to destroy cancer cells. Evaluation of over 50 potential cancer biomarkers discovered by OncoCyte and BioTime using antibody-based ELISA technology in blood serum samples from a proprietary sample bank derived from over 600 donors, including patients with cancers of the breast, colon, and pancreas, as well as healthy volunteers. Initiation of plans for the commercial development and manufacture of monoclonal antibodies to these markers for potential inclusion in *PanC-Dx*™ test kits. Completion of experiments characterizing COL10A1, one of the seven priority cancer biomarkers discovered using OncoCyte's proprietary cancer microarray dataset, and publication of a manuscript summarizing this work in the peer-reviewed journal *Future Oncology*, which demonstrates the localization of the marker in breast cancer but not in healthy breast tissue. Filing of over 20 patent applications in the U.S. covering the broad use of these cancer markers in the diagnosis and treatment of various cancers; Completion of the development and characterization of over 50 proprietary, patent pending, monoclonal antibodies targeting 7 novel cancer antigens. Initiation of validation studies of ELISA assays in order to demonstrate high-sensitivity detection of target antigens using proprietary monoclonal antibodies. Completion of large-scale manufacturing of 11 proprietary monoclonal antibodies; Initiation of clinical trial protocol design analysis in consultation with key opinion leaders and outside diagnostic experts.

Company	Program	Status
OrthoCyte [4]	Cartilage repair using embryonic progenitor cells	Identified several cell lines that displayed molecular markers consistent with the production of definitive human cartilage. Confirmed chondrogenic potential in joint defects in rat models of osteoarthritis.
ReCyte Therapeutics	Therapeutic products for vascular and blood disorders utilizing its proprietary *ReCyte*™ iPS technology and hES cells.	Evaluating effects of telomere length on growth potential of iPS cells and iPS-derived progenitor lines. Through BioTime, formed a collaboration with researchers at Cornell Weill Medical College to derive clinical vascular endothelium for the treatment of age-related vascular disease. Demonstrated the feasibility of producing highly purified endothelial progenitor cells from pluripotent stem cells.
Cell Cure Neurosciences [5]	*OpRegen*™ and *OpRegen-Plus*™ for treatment of age related macular degeneration	Conducted animal model studies to establish proof of concept. Developed directed differentiation as efficient method for short culture period to produce a supply of retinal pigment epithelial cells. Granted Teva Pharmaceutical Industries, Ltd. an option to complete clinical development of, and to manufacture, distribute, and sell, *OpRegen*™ and *OpRegen-Plus*™.
LifeMap Sciences [6]	Online, searchable databases	Marketing searchable, integrated, database products, including: · *GeneCards*®, a database of human genes that provides concise genomic, transcriptomic, genetic, proteomic, functional and disease related information, on all known and predicted human genes; · *MalaCards*, a database of human diseases that is based on the *GeneCards*® platform and contains computerized “cards” classifying information relating to a wide array of human diseases; · *LifeMap Discovery*™, a database of embryonic development, stem cell research and regenerative medicine; · *PanDaTox*, an innovative, recently developed, searchable database that can aid in the discovery of new antibiotics and biotechnologically beneficial products; and · BioTime and other research products.

(1) During late December 2010, our subsidiary, Embryome Sciences, Inc., changed its name to ReCyte Therapeutics, Inc. in conjunction with a change of its business focus to the research and development of therapeutic products to treat blood and vascular diseases and disorders. Embryome Sciences’ research products business and *ACTCellerate*™ hEPC research and development projects, including related patent and technology rights, have been assigned to BioTime or other BioTime subsidiaries. The hydrogel products were acquired in 2011 through the merger of Glycosan into OrthoCyte, but were assigned to BioTime in January 2012.

(2) Our CIRM grant that funded this program expired in August 2012.

(3) OncoCyte was organized during October 2009 and received $4,000,000 of initial capital from private investors.

(4) OrthoCyte was organized during June 2010. The hydrogel products were acquired in 2011 through the merger of Glycosan into OrthoCyte, but were assigned to BioTime in January 2012.

(5) We acquired our interest in Cell Cure Neurosciences during 2010. Cell Cure Neurosciences received $7,100,000 of additional equity financing during October 2010 from us and two of its other principal shareholders.

(6) LifeMap Sciences was organized during April 2011 and acquired XenneX, Inc., during May 2012. Through the acquisition of XenneX, LifeMap Sciences acquired licenses to market the *GeneCards*® and *PanDaTox* databases. During May 2012, LifeMap Sciences also licensed the right to market the *MalaCards* database.

The inherent uncertainties of developing new products for stem cell research and for medical use make it impossible to predict the amount of time and expense that will be required to complete the development and commence commercialization of new products. There is no assurance that we or any of our subsidiaries will be successful in developing new technologies or stem cell products, or that any technology or products that may be developed will be proven safe and effective for treating diseases in humans, or will be successfully commercialized. Most of our potential therapeutic products are at a very early stage of preclinical development. Before any clinical trials can be conducted by us or any of our subsidiaries, the company seeking to conduct the trials would have to compile sufficient laboratory test data substantiating the characteristics and purity of the stem cells, conduct animal studies, and then obtain all necessary regulatory and clinical trial site approvals, after which a team of physicians and statisticians would need to be assembled to perform the trials. Clinical trials will be costly to undertake and will take years to complete. See our discussion of the risks inherent in our business and the impact of government regulation on our business in the “Risk Factors” section and “Business” section of this report.

We believe each of our operating subsidiaries has sufficient capital to carry out its current research and development plan during 2013. We may provide additional financing for our subsidiaries, or obtain financing from third parties, based on the following: our evaluation of progress made in their respective research and development programs, any changes to or the expansion of the scope and focus of their research, and our projection of future costs. See “Liquidity and Capital Resources” for a discussion of our available capital resources, our potential need for future financing, and possible sources of capital.

Research and Development Expenses

The following table shows the approximate percentages of our total research and development expenses of $18,116,688 and $13,699,691 allocated to our primary research and development projects during the years ended December 31, 2012 and 2011, respectively.

		Amount		Percent	
Company	**Program**	**2012**	**2011**	**2012**	**2011**
BioTime, ReCyte Therapeutics, and ESI[2]	*ACTCellerate*™ hEPCs, GMP hES cell lines, and related research products	$ 2,826,558	$ 2,884,216	15.6%	21.1%
BioTime	CIRM sponsored *ACTCellerate*™ technology	$ 794,632	$ 1,715,386	4.4%	12.5%
BioTime and OrthoCyte[1]	Hydrogel products and *HyStem*® research	$ 3,681,893	$ 1,142,705	20.3%	8.3%
OncoCyte	Cancer therapy and diagnostics	$ 3,129,885	$ 2,376,444	17.3%	17.4%
OrthoCyte	Orthopedic therapy	$ 950,956	$ 759,798	5.2%	5.6%
ReCyte Therapeutics	IPS and vascular therapy	$ 1,367,294	$ 626,248	7.6%	4.6%
BioTime	*HyStem*®	$ 291,580	$ 308,471	1.6%	2.2%
BioTime Asia	Stem cell products for research	$ 153,031	$ 175,539	0.8%	1.3%
Cell Cure Neurosciences[2]	*OpRegen*™, *OpRegen-Plus*, and neurological disease therapies	$ 3,185,490	$ 3,197,597	17.6%	23.3%
LifeMap Sciences	Database development; *PureStem*™ hEPCs, GMP hES cell lines, and related research products	$ 1,735,369	$ 513,287	9.6%	3.7%

(1) OrthoCyte transferred its*HyStem*®product line and related research to BioTime during January 2012.OrthoCyte transferred its*HyStem*®product line and related research to BioTime during January 2012.

(2) Amount includes research and development expenses incurred directly by the subsidiary and certain general research and development expenses, such as lab supplies, lab expenses, rent allocated, , and insurance allocated to research and development expenses, incurred directly by BioTime on behalf of the subsidiary and allocated to the subsidiary. During the year ended December 31, 2012 BioTime allocated $352,351 and $112,418 in research and development expenses to ESI and Cell Cure Neurosciences, respectively. During the year ended December 31, 2011 BioTime allocated $493,579 and $112,521 in research and development expenses to ESI and Cell Cure Neurosciences, respectively

General and Administrative Expenses

The following table shows the amount and approximate percentages of our total general and administrative expenses of $10,365,045 and $9,341,502 allocated to BioTime and our subsidiaries during the years ended December 31, 2012 and 2011, respectively.

	Amount		Percent	
Company	2012	2011	2012	2011
BioTime	$ 4,757,477	$ 4,220,139	45.9%	45.2%
BAC	$ 758,563	$ —	7.3%	0.0%
BioTime Asia	$ 869,730	$ 1,180,061	8.4%	12.6%
Cell Cure Neurosciences*	$ 722,575	$ 592,230	7.0%	6.3%
ESI*	$ 546,485	$ 567,266	5.3%	6.1%
LifeMap Sciences	$ 1,292,898	$ 378,747	12.5%	4.1%
OncoCyte	$ 606,987	$ 829,970	5.8%	8.9%
OrthoCyte	$ 403,694	$ 1,087,258	3.9%	11.6%
ReCyte Therapeutics	$ 406,636	$ 485,831	3.9%	5.2%

* Amount includes general and administrative expenses incurred directly by the subsidiary and allocations from BioTime for certain general overhead expenses such as salaries, insurance, and travel and entertainment expenses. During the year ended December 31, 2012 BioTime allocated $314,635 and $91,163 in general and administrative expenses to ESI and Cell Cure Neurosciences, respectively. During the year ended December 31, 2011 BioTime allocated $272,956 and $48,210 in general and administrative expenses to ESI and Cell Cure Neurosciences, respectively

Critical Accounting Policies

Revenue recognition – We comply with SEC Staff Accounting Bulletin guidance on revenue recognition. Royalty revenues consist of product royalty payments. License fee revenues consist of fees under license agreements and are recognized when earned and reasonably estimable and also include subscription and advertising revenue from our online databases based upon respective subscription or advertising periods. We recognize revenue in the quarter in which the royalty reports are received rather than the quarter in which the sales took place. When we are entitled to receive up-front nonrefundable licensing or similar fees pursuant to agreements under which we have no continuing performance obligations, the fees are recognized as revenues when collection is reasonably assured. When we receive up-front nonrefundable licensing or similar fees pursuant to agreements under which we do have continuing performance obligations, the fees are deferred and amortized ratably over the performance period. If the performance period cannot be reasonably estimated, we amortize nonrefundable fees over the life of the contract until such time that the performance period can be more reasonably estimated. Milestone payments, if any, related to scientific or technical achievements are recognized in income when the milestone is accomplished if (a) substantive effort was required to achieve the milestone, (b) the amount of the milestone payment appears reasonably commensurate with the effort expended, and (c) collection of the payment is reasonably assured. Grant income and the sale of research products are recognized as revenue when earned. Revenues from the sale of research products are primarily derived from the sale of hydrogels and stem cell products.

Patent costs – Costs associated with obtaining patents on products or technology developed are expensed as general and administrative expenses when incurred. This accounting is in compliance with guidance promulgated by the Financial Accounting Standards Board (“FASB”) regarding goodwill and other intangible assets.

Research and development – We comply with FASB requirements governing accounting for research and development costs. Research and development costs are expensed when incurred, and consist principally of salaries, payroll taxes, consulting fees, research and laboratory fees, and license fees paid to acquire patents or licenses to use patents and other technology from third parties.

Stock-based compensation – We have adopted accounting standards governing share-based payments, which require the measurement and recognition of compensation expense for all share-based payment awards made to directors and employees, including employee stock options, based on estimated fair values. We utilize the Black-Scholes Merton option pricing model. Our determination of fair value of share-based payment awards on the date of grant using an option-pricing model is affected by our stock price as well as assumptions regarding a number of highly complex and subjective variables. These variables include, but are not limited to, expected stock price volatility over the term of the awards, and actual and projected employee stock option exercise behaviors. The expected term of options granted is derived from historical data on employee exercises and post-vesting employment termination behavior. The risk-free rate is based on the U.S. Treasury rates in effect during the corresponding period of grant. Although the fair value of employee stock options is determined in accordance with recent FASB guidance, changes in the subjective assumptions can materially affect the estimated value. In management’s opinion, the existing valuation models may not provide an accurate measure of the fair value of employee stock options because the option-pricing model value may not be indicative of the fair value that would be established in a willing buyer/willing seller market transaction.

Treasury stock – We account for BioTime common shares issued to subsidiaries for future potential working capital needs as treasury stock on the consolidated balance sheet. We have the intent and ability to register any unregistered shares to support the marketability of the shares.

Impairment of long-lived assets – Our long-lived assets, including intangible assets, are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be fully recoverable. If an impairment indicator is present, we evaluate recoverability by a comparison of the carrying amount of the assets to future undiscounted net cash flows expected to be generated by the assets. If the assets are impaired, the impairment recognized is measured by the amount by which the carrying amount exceeds the estimated fair value of the assets.

Deferred license and consulting fees – Deferred license and consulting fees consist of the value of warrants issued to third parties for services and to the minority shareholder in BioTime Asia for its participation in the organization of that company, and deferred license fees paid to acquire rights to use the proprietary technologies of third parties. The value of the warrants is being amortized over the lives of the warrants, and deferred license fees over the estimated useful lives of the licensed technologies or licensed research products. The estimation of the useful life any technology or product involves a significant degree of inherent uncertainty, since the outcome of research and development or the commercial life of a new product cannot be known with certainty at the time that the right to use the technology or product is acquired. We will review its amortization schedules for impairments that might occur earlier than the original expected useful lives. See also Note 6 to the Condensed Consolidated Interim Financial Statements.

Principles of consolidation – Our consolidated financial statements include the accounts of our wholly-owned subsidiaries, OrthoCyte, and ESI, the accounts of ReCyte Therapeutics, a subsidiary of which we owned approximately 95.2% of the outstanding shares of common stock as of December 31, 2012; the accounts of OncoCyte, a subsidiary of which we owned approximately 75.3% of the outstanding shares of common stock as of December 31, 2012; the accounts of BioTime Asia, a subsidiary of which we owned approximately 81.0% of the outstanding shares as of December 31, 2012, the accounts of Cell Cure Neurosciences, a subsidiary of which we owned approximately 53.6% of the outstanding shares as of December 31, 2012, the accounts of LifeMap Sciences, a subsidiary of which we owned approximately 73.2% of the outstanding shares as of December 31, 2012, and the accounts of BAC, a subsidiary of which we owned 96.7% of the outstanding shares as of December 31, 2012. All material intercompany accounts and transactions have been eliminated in consolidation. The consolidated financial statements are presented in accordance with accounting principles generally accepted in the U.S. and with the accounting and reporting requirements of Regulation S-X of the SEC.

Results of Operations

Comparison of Years Ended December 31, 2012 and 2011

	Year Ended December 31,		$ Increase/	% Increase/
	2012	2011	Decrease	Decrease
License fees	$ 899,998	$ 263,757	$ +636,241	241.2%
Royalty from product sales	541,681	756,950	-215,269	-28.4%
Grant income	2,222,458	2,767,181	-544,723	-19.7%
Sales of research products and services	251,190	646,271	-395,081	-61.1%
Total revenues	3,915,327	4,434,159	-518,832	-11.7%
Cost of sales	(434,271)	(79,397)	+(354,874)	+477.0%
Total revenues, net	3,481,056	4,354,762	-873,706	-20.1%

Our license fee revenues amounted to $899,998 and $263,757 for the years ended December 31, 2012 and 2011, respectively. License fee revenues for the year ended December 31, 2012 include subscription and advertising revenues of $752,896 from LifeMap Science's online database business primarily related to its GeneCards® database which LifeMap Sciences began marketing after its acquisition of XenneX during 2012. The 241% increase in license fee revenue in 2012 is primarily attributed to this new subscription and advertising revenue which is partially offset by license fee revenues of $85,358 earned through ESI in 2011 but not in 2012. License fee revenues also include $145,873 and $178,399 for the years ended December 31, 2012 and 2011, respectively from CJ and Summit. The license fees from CJ were received during April 2003 and July 2004, and the license fees from Summit were received during December 2004 and April and October of 2005, but full recognition of those license fees has been deferred, and is being recognized over the life of the contracts, which has been estimated to last until approximately 2019 based on the current expected life of the governing patent covering our products in Korea and Japan. See Note 1 to the Consolidated Financial Statements.

Under our license agreements with Hospira and CJ, our licensees report sales of *Hextend*® and pay us the royalties and license fees due on account of such sales within 90 days after the end of each calendar quarter. We recognize such revenues in the quarter in which the sales report is received, rather than the quarter in which the sales took place. For example, royalties on sales made during the fourth quarter of 2011 were not recognized until the first quarter of fiscal year 2012.

Our royalty revenues from product sales for the year ended December 31, 2012 primarily consist of royalties on sales of *Hextend*® made by Hospira and CJ during the period beginning October 1, 2011 and ending September 30, 2012. Royalty revenues recognized for that period were $541,681 compared with $756,950 recognized for the year ended December 31, 2011. This 28% decrease in royalties is attributable to a decrease in *Hextend*® sales in the U.S. and in the Republic of Korea. The decrease in royalties received from Hospira is primarily due to the decline in the price of hetastarch-based products in the market. The blood volume expander marketing continues to contract and hospitals continue to shift their purchases to albumin products. Hospira has reported that they have seen a rapid decline in the price of hetastarch-based plasma expanders in the market which could continue to have a negative impact on revenues from the sale of *Hextend*®. Hospira implemented further price reductions for *Hextend*® during 2012 in an attempt to maintain market share. We expect royalty revenues from product sales to continue to decline as a percentage of total revenue.

Total grant revenue in 2012 decreased by approximately 20% as a result of the completion of the CIRM grant in August 31, 2012 compared to a full year of CIRM grant revenue in 2011. Grant revenue in 2012 included $1,047,106 from CIRM, $1,109,699 recognized through Cell Cure Neurosciences and $18,145 through Life Map Sciences, Ltd., and $47,507 of a $335,900 grant awarded to us by the NIH. The original NIH grant period ran from September 30, 2011 through September 29, 2012. However, this grant was extended for another year through September 29, 2013.

The decline in sales of research products and services in 2012 is primarily attributed to a one time sale of approximately $200,000 in revenues recognized through ESI in 2011.

	Year Ended December 31,		$ Increase/	%$ Increase/
	2012	2011	Decrease	Decrease
Research and development expenses	$ (18,116,688)	$ (13,699,691)	$ +4,416,997	+32.2%
General and administrative expenses	(10,365,045)	(9,341,502)	+1,023,543	+11.0%
Interest income/(expense)	19,383	29,727	-10,344	-34.8%
Other income/(expense)	(317,710)	219,067	+(536,777)	-245.0%

Research and development expenses – Research and development expenses increased approximately 32% to $18,116,688 for the year ended December 31, 2012, from $13,699,691 for the year ended December 31, 2011. Research and development expenses include laboratory study expenses, patent and technology license fees, employee compensation, rent, insurance, and science-related consultants' fees which are allocated to research and development expense.

Research and development expenses for the years ended December 31, 2012 and 2011, include $1,582,647 and $1,499,726, respectively, derived from the amortization of patent technology related to our acquisition of ESI and Cell Cure Neurosciences in May and October 2010, respectively. Aside from these expenses, the increase in research and development expenses during 2012 is primarily attributable to an increase of $2,116,195 in employee compensation and related costs allocated to research and development expenses, an increase of $1,019,031 in our *HyStem*® program related research expenses, an increase of $456,068 in the amortization of patent technology reflecting a full year of amortization related to our acquisition of assets from CTI and merger with Glycosan in 2011, and amortization related to the merger with XenneX in 2012, an increase of $409,546 in expenditures made to cover laboratory expenses and supplies, an increase of $181,194 in stock-based compensation to employees and consultants, an increase of $148,501 in licenses, patent and trademark related fees and legal fees, an increase of $144,082 in scientific consulting fees, an increase of $142,744 in outside research and research related outside services, an increase of $160,218 in rent and building maintenance, an increase of $108,116 in travel, lodging and meals, and an increase of $96,888 in depreciation expense. These increases in 2012 over 2011 were offset in part by a decrease of $335,567 and $272,225 in ESI and Cell Cure Neurosciences research and development expenses, respectively.

General and administrative expenses – General and administrative expenses increased to $10,365,045 for the year ended December 31, 2012 from $9,341,502 for the year ended December 31, 2011. General and administrative expenses include employee and director compensation allocated to general and administrative expenses, consulting fees other than those paid for science-related consulting, insurance costs allocated to general and administrative expenses, stock exchange-related costs, depreciation expense, shipping expenses, marketing costs, and other miscellaneous expenses which are allocated to general and administrative expense.

The increase is attributable to an increase of $563,257 in employee compensation, bonuses and related costs allocated to general and administrative expenses, an increase of $180,639 in stock-based compensation to employees and consultants, an increase of $667,731 in legal fees, an increase of $107,818 in accounting and tax services, an increase of $76,745 in rent and building maintenance and an increase of $87,392 in Cell Cure Neurosciences general and administrative expenses. These increases are in part offset by a decrease of $185,456 in consulting fees, a decrease of $165,030 in recruiting service expenses, a decrease of $83,966 in travel, lodging and meals, a decrease of $83,414 in bad debt expenses, decrease of $75,573 in transfer agent, stock listing and registration fees and a decrease of $62,461 in ESI general and administrative expenses.

Interest income – During 2012, we earned $19,698 of interest income, net of $315 of interest expense. Interest income is primarily attributed to interest earned on cash balances held in interest bearing accounts during 2012. During 2011, we earned $30,053 of interest income, net of $326 of interest expense.

Other income/(expense) – Other expenses in 2012 include reversal of $207,425 in revenues recognized by ESI. The $207,425 represents US $200,000 that was recognized as revenues in 2011 upon the shipment of cell lines in accordance with an agreement between ESI and a customer. The difference of $7,425 is attributed to foreign currency rates. The revenue for the cell lines shipped to the customer was reversed during the first quarter of 2012 pending the final completion of audits and acceptance of vials by the customer which was incorrectly assumed to have occurred in December 2011. Other income in 2011 consists primarily of approximately $198,000 of reimbursement of tenant improvement expenses incurred by us.

Comparison of Years Ended December 31, 2011 and 2010

	Year Ended December 31,		$ Increase/	% Increase/
	2011	2010	Decrease	Decrease
License fees	$ 263,757	$ 292,904	$ -29,147	-10.0%
Royalty from product sales	756,950	945,461	-188,511	-19.9%
Grant income	2,767,181	2,336,325	+430,856	+18.4%
Sale of research products and services	646,271	133,328	+512,943	+384.7%
Total revenues	4,434,159	3,708,018	+726,141	+19.6%
Cost of sales	(79,397)	(27,718)	+(51,679)	+186.4%
Total revenues, net	4,354,762	3,680,300	674,462	+18.3%

Our license fee revenue of $263,757 in 2011 and $292,904 in 2010 were primarily comprised of and license fees from CJ and Summit. The license fees were received from CJ during April 2003 and July 2004, and from Summit during December 2004 and April and October of 2005, but full recognition of the license fees has been deferred, and is being recognized over the life of the contract, which has been estimated to last until approximately 2019 based on the current expected life of the governing patent covering our products in Korea and Japan. See Note 1 to the Consolidated Financial Statements.

Our royalty revenue from product sales for the year ended December 31, 2011 consist of royalties on sales of *Hextend*® made by Hospira and CJ during the period beginning October 1, 2010 and ending September 30, 2011. Royalty revenues recognized for that period were $753,140 compared with $945,461 recognized for the year ended December 31, 2010. This 20% decrease in royalties is attributable to a decrease in *Hextend*® sales in the U.S., which was slightly offset by an increase in sales in the Republic of Korea. The decrease in royalties received from Hospira based on sales during 2011 is due to the rapid decline in the price of hetastarch-based products in the market. The blood volume expander marketing is shrinking overall and hospitals have shifted their purchases to albumin products. Hospira has reported that they have seen a rapid decline in the price of hetastarch-based plasma expanders in the market which could continue to have a negative impact on revenues from the sale of *Hextend*®. Hospira has implemented further price reductions for *Hextend*® during 2012 in an attempt to maintain market share.

We recognized $1,570,663 from our research grant from CIRM during the years ended December 31, 2011 and 2010. Grant income also included awards from other sources in the amount of $1,073,668 recognized through Cell Cure Neurosciences and $94,933 through OncoCyte and OrthoCyte and $27, 197 from an NIH grant that started in September 2011. The increase in grant income of approximately 18.4% in 2011 over 2010 is primarily attributed to the grant income recognized through Cell Cure Neurosciences compared to nil in 2010 and the NIH grant that started in September 2011. These increases were partially offset by $733,438 grant awarded to us under the U.S. Government's Qualifying Therapeutic Discovery Project ("QTDP"). This one time grant was entirely recognized in 2010.

The increase in sales of research products and services in 2011 is partially attributed to a one time sale of approximately $200,000 in revenues recognized through ESI in 2011 and the sale of research products acquired from the merger with Glycosan in March 2011 of approximately $241,000.

	Year Ended December 31,		$ Increase/	% Increase/
	2011	2010	Decrease	Decrease
Research and development expenses	$ (13,699,691)	$ (8,191,314)	$ +(5,508,377)	+67.2%
General and administrative expenses	(9,341,502)	(5,341,119)	+(4,000,383)	+74.9%
Interest income/(expense)	29,727	(124,300)	+154,027	-
Other income/(expense)	219,067	(68,573)	+287,640	-

Research and development expenses – Research and development expenses increased to $13,699,691 for the year ended December 31, 2011, from $8,191,314 for the year ended December 31, 2010. Research and development expenses include laboratory study expenses, patent and technology license fees, employee salaries and benefits, stock compensation expense, rent, insurance and science-related consultants' fees which are allocated to research and development expense.

The increase in 2011 is partially attributed to accounting for a full year of research and development activity by ESI and Cell Cure Neurosciences in 2011 compared to eight months and three months for ESI and Cell Cure Neurosciences, respectively in 2010. These amounts include $1,499,726 in 2011 and $790,117 in 2010 of amortization expense of patent technology acquired from the acquisition of those subsidiaries in May and October 2010, respectively. In 2011, research and development expenses also included $491,474 in amortization expense related to the patent technology acquired from CTI in January 2011 and through the acquisition of Glycosan in March 2011. In addition to these expenses, the increase in research and development expense during 2011 is primarily attributable to an increase of $768,305 in employee compensation and related costs, an increase of $348,282 in outside research and laboratory costs, an increase of $411,688 in stock-based compensation allocated to research and development expense of which $236,942 arises from Cell Cure Neurosciences, an increase of $189,406 in expenditures made to cover laboratory expenses and supplies, an increase of $170,365 in rent expenses allocated to research and development expense, an increase of $86,284 for patent related legal expenses, an increase of $89,563 in depreciation expenses allocated to research and development expense, and $402,089 in expenses related to the *Renevia* ® project which began in 2011. These increases were partially offset to some extent by decreases of $76,749 in scientific consulting fees.

General and administrative expenses – General and administrative expenses increased to $9,341,502 for the year ended December 31, 2011 from $5,341,119 for the year ended December 31, 2010. General and administrative expenses include salaries and benefits allocated to general and administrative accounts, stock compensation expense, consulting fees other than those paid for science-related consulting, expenditures for patent costs, trademark expenses, insurance costs allocated to general and administrative expenses, stock exchange-related costs, depreciation expense, shipping expenses, marketing costs, and other miscellaneous expenses which are allocated to general and administrative expense.

The increase in expenses in 2011 over 2010 is partially attributed to accounting for a full year of general and administrative expenses incurred by Cell Cure Neurosciences which we acquired in October of 2010. General and administrative expenses for ESI decreased to $294,310 in 2011 compared to $428,403 in 2010 due to certain non-recurring audit and accounting fees incurred in 2010 in connection with our acquisition of ESI, and due to the recognition of bad debt expense of approximately $31,000. There were no such non-recurring expenses in 2011. Excluding these non-recurring expenses, the overall increase in general and administrative expenses in 2011 is attributable to an increase of $2,190,753 in employee compensation, bonuses and related costs allocated to general and administrative expense, an increase of $424,442 in consulting fees, an increase of $191,172 in stock-based compensation to employees and consultants, an increase of $157,576 in cash and stock-based compensation paid to our independent directors, an increase of $262,205 in travel, lodging and entertainment expense, an increase in recruiting and hiring expense of $174,818, an increase of $103,062 in stock subscription, registration and agent fees, marketing and advertisement expenses of $81,595, an increase of $100,230 in bad debt expense and an increase of $57,180 in rent expenses allocated to general and administrative expense. These increases were partially offset by decreases of $133,526 in investor and public relations fees.

Interest income/(expense) – During 2011, we earned $30,053 of interest income and had $326 of interest expense. Interest income in 2011 was attributed to interest earned on higher cash balances held during 2011 compared to 2010. In 2010, almost all of the interest expense was incurred by Cell Cure Neurosciences, in which we acquired a majority equity interest in October 2010. See Note 12 to the Consolidated Financial Statements.

Other income/(expense) – Other income in 2011 consisted primarily of approximately $198,000 of reimbursement of tenant improvement expenses that we previously incurred. Other expense in 2010 of $68,573 was primarily comprised of approximately $66,000 of reimbursement of tenant improvement expenses offset to some extent by approximately $258,000 loss in share of Cell Cure Neurosciences recognized by ESI for period prior to our investment in Cell Cure in October 2010. See Note 12 to the Consolidated Financial Statements.

Modification cost of warrants – In 2010, we recognized $2,142,201 in costs for the modification of stock purchase warrants that expired on November 1, 2010. We offered a discounted exercise price of $1.818 per share to the holders of the warrants with an original strike price of $2.00 per share. The warrant discount offer commenced on June 18, 2010, and expired at 5:00 p.m., New York time, on August 18, 2010. There was no such transaction in 2011.

Taxes

At December 31, 2012 we had a cumulative net operating loss carryforward of approximately $78,000,000 for federal income tax purposes and $49,000,000 for state income tax purposes. Our effective tax rate differs from the statutory rate because we have recorded a 100% valuation allowance against our deferred tax assets, as we do not consider realization to be more likely than not.

Liquidity and Capital Resources

At December 31, 2012, we had $4,349,967 of cash and cash equivalents on hand.

On August 24, 2012, we entered into a Controlled Equity Offering SM sales agreement with Cantor Fitzgerald & Co. (“Cantor”), pursuant to which we may offer and sell up to $25 million of our common shares, from time to time through Cantor acting as our sales agent. The offer and sale of our shares through Cantor has been registered pursuant to registration statement filed under the Securities Act of 1933.

Under the sales agreement, Cantor may sell shares of our common stock by any method permitted by law deemed to be an “at-the-market” offering as defined in Rule 415 under the Securities Act, including, but not limited to, sales made directly on NYSE MKT, on any other existing trading market for our common stock or to or through a market maker. Cantor may also sell our shares under the sales agreement by any other method permitted by law, including in privately negotiated transactions. Cantor has agreed in the sales agreement to use its commercially reasonable efforts to sell shares in accordance with our instructions (including any price, time or size limit or other customary parameters or conditions we may impose). The offering pursuant to the sales agreement will terminate upon the sale of all shares subject to the sales agreement or the earlier termination of the sales agreement as permitted by its terms.

In the fourth quarter of 2012 we raised gross proceeds of $1,414,105 from the sale of 392,984 BioTime common shares at a weighted average price of $3.60 per share in the open market through our $25 million Controlled Equity Offering facility with Cantor and through the sale of BioTime shares held by our majority owned subsidiary, LifeMap Sciences. In the first quarter of 2013, we raised additional gross proceeds of $11,306,430 from the sale of 2,537,051 BioTIme common shares at a weighted average price of $4.46 per share in the open market through our Controlled Equity Offering facility with Cantor and through the sale of BioTime shares held by our majority owned subsidiaries, LifeMap Sciences and Cell Cure Neurosciences. The proceeds of the sale of BioTime shares by our subsidiaries belong to those subsidiaries.

During January 2013, we received an additional $2,000,000 in cash from a private investor as the first installment of a sale of common shares and warrants under a Stock and Warrant Purchase Agreement. The second tranche of $3,000,000 was originally intended to close later this year concurrent with the closing of the Asset Contribution Agreement. However, on March 7, 2013 we executed an amendment with the investor to accelerate the closing date to April 10, 2013. The funds received from that investor will be earmarked to fund our cash contribution obligation to BAC under the Asset Contribution Agreement. We may lend to BAC all or a portion of the $2,000,000 installment that we received to finance BAC's operations, and we will be credited with the amount of the loan as part of our $5,000,000 cash contribution to be made to BAC under the Asset Contribution Agreement.

We will depend upon revenue from the sale of our research products, database subscription and advertising revenues, royalties from the sale of *Hextend*® by Hospira and CJ, and research grants as our principal sources of revenues for the near future. Our CIRM grant, which was our largest source of grant revenues, expired during August 2012 and will no longer be a source of cash for our operations. Although we have applied for additional CIRM grants, there is no assurance that CIRM will approve any future grants for our research and development programs.

Because our revenues from product sales, subscription and advertising revenues, and royalties are not presently sufficient to cover our operating expenses, we may need to obtain additional equity capital or debt in order to finance our operations. The future availability and terms of equity or debt financing are uncertain. We presently have issued and outstanding 816,612 common share purchase warrants, 50,000 of which are exercisable at a price of $10 per share and will expire in April 2014, 506,613 of which are exercisable at a price of $10 per share and will expire in May 2014, and 259,999 issued in January 2013 of which are exercisable at a price of $5.00 per share and will expire in January 2016. None of the warrants are publicly traded.

Upon consummation of the asset contribution transaction under the Asset Contribution Agreement, we will issue 8,000,000 common share purchase warrants to BAC, and 389,998 common share purchase warrants to the private investor under the Stock and Warrant Purchase Agreement. BAC will distribute the warrants it receives to the holders of its Series A common stock. Those warrants will have an exercise price of $5.00 per share. The warrants to be issued to BAC will expire in five years from the date of issue, and the warrants to be issued to the private investor will expire in January 2016. We expect that the warrants to be issued to BAC will be publicly traded.

The unavailability or inadequacy of financing or revenues to meet future capital needs could force us to modify, curtail, delay, or suspend some or all aspects of our planned operations. Sales of additional equity securities could result in the dilution of the interests of present shareholders.

Cash generated by operations

During 2012, we received $4,253,474 of cash in our operations. Our sources of that cash were $429,353 of royalty revenues from Hospira, $111,940 of royalty revenues from CJ, $38,535 of research grant payment from the NIH, $945,773 from the sale of research products, $1,222,516 from subscription and advertisement revenues, $1,112,692 in foreign grants, and a $392,665 research grant payment from CIRM.

Cash used in operations

During 2012, our total research and development expenditures were $18,116,688 and our general and administrative expenditures were $10,365,045. Net loss attributable to BioTime for the year ended December 31, 2012 amounted to $21,425,703. Net cash used in operating activities during this period amounted to $19,679,518. The difference between the net loss and net cash used in operating activities during 2012 was primarily attributable to amortization of $2,446,975 in intangible assets, $1,282,507 in stock-based compensation paid to employees and consultants, $561,455 in options issued as independent director compensation, $598,465 amortization of deferred consulting fees, $109,500 amortization of deferred license fees, $386,457 in depreciation expense, $36,322 in accounts receivable, $212,102 in deferred revenues, $207,425 in reduction in receivables from the reversal of revenues, and $894,975 in accounts payable and accrued liabilities. This overall difference was offset to some extent by amortization of $211,065 in deferred license, royalty and subscription revenues, $261,777 in amortization of deferred grant income, $416,787 in grants receivable, $228,370 in prepaid expenses and other current assets, and net loss of $3,880,157 allocable to the noncontrolling interest in our subsidiaries.

Cash flows from investing activities

During the year ended December 31, 2012, $104,687 was used for investing activities. The primary components of this cash were approximately $400,810 used in the purchase of equipment offset to some extent by $292,387 of cash acquired in connection with the merger with XenneX and $4,500 proceeds from the sale of equipment.

Cash generated by financing activities

During the year ended December 31, 2012, $1,913,378 in net cash was provided from our financing activities. During this period, we received $286,552 in connection with the exercise of 98,541 options, $250,000 from issuance of LifeMap Sciences common shares, $1,131,279 from the sale of BioTime common stock and $282,826 from the sale of treasury shares held by a subsidiary. This overall difference is offset by $37,279 in financing fees incurred as part of the sale of BioTime common stock.

Contractual obligations

As of December 31, 2012, our contractual obligations for the next five years and thereafter were as follows:

	Principal Payments Due by Period				
Contractual Obligations [1]	**Total**	**Less Than 1 Year**	**1-3 Years**	**4-5 Years**	**After 5 Years**
Operating leases [2]	$ 2,737,659	$ 1,021,054	$ 1,683,980	$ 32,625	$ -

(1) This table does not include payments to key employees that could arise if they were involuntary terminated or if their employment terminated following a change in control.

(2) Includes the lease of our principal office and laboratory facilities in Alameda, California, and leases of the offices and laboratory facilities of our subsidiaries BioTime Acquisition Corporation, ESI, LifeMap Sciences, and Cell Cure Neurosciences.

Recent Financing Activities

During April and May 2012, LifeMap Sciences sold to us 9,428,571 shares of common stock for $666,640 in cash. In July and in December 2012, LifeMap Sciences sold 1,714,287 shares of common stock to certain private investors who are also BioTime shareholders for $250,000 cash and 592,533 BioTime common shares having a market value of $2,750,000. Some of these BioTime shares held by LifeMap Sciences were sold during the year and the remaining 513,935 BioTime common shares along with the 1,286,174 held by OncoCyte are accounted for as treasury stock as of December 31, 2012.

From October 3, 2012 through March 14, 2013, we sold a total of 2,930,035 common shares and received gross proceeds of $12,720,535 through the Controlled Equity Offering sales agreement with Cantor and through the sale of BioTime common shares held by our majority owned subsidiaries, LifeMap Sciences and Cell Cure Neurosciences. The proceeds of the sale of BioTime shares by LifeMap Sciences and Cell Cure Neurosciences belong to those subsidaries. There is no assurance that we will be able to sell additional common shares through the Controlled Equity Offering facility at prices acceptable to us, but we believe that our existing cash and cash equivalents, including the proceeds from the sales of common shares from the Controlled Equity offering, should be sufficient to fund our operations through at least into the first quarter of 2014.

During January 2013, we received an additional $2,000,000 in cash from a private investor as the first installment of a sale of common shares and warrants under a Stock and Warrant Purchase Agreement.

Future capital needs

We currently depend upon revenue from the sale of our stem cell research products, subscriptions and advertising from LifeMap Sciences' database products, sales of *HyStem*® hydrogel for research use, royalties from the sale of *Hextend*® by Hospira and CJ, and research grants. Any significant loss in any of these revenue sources could impact our future capital needs. Our product sales and royalty revenues may be supplemented by any license fees that we may receive if we enter into new commercial license agreements for our products or technology.

The amount and pace of research and development work that we can do or sponsor, and our ability to commence and complete the clinical trials that are required in order for us to obtain FDA and foreign regulatory approval of products, depend upon the amount of money we have. We curtailed the pace and scope of our plasma volume expander development efforts due to the limited amount of funds available. Future research and clinical study costs are not presently determinable due to many factors, including the inherent uncertainty of these costs and the uncertainty as to timing, source, and amount of capital that will become available for our projects.

The market value and the volatility of our stock price, as well as general market conditions, could impact our ability to raise capital on favorable terms, or at all. Any equity financing we obtain may further dilute or otherwise impair the ownership interests of our current shareholders. If we fail to generate positive cash flows or fail to obtain additional capital when required, we could modify, delay or abandon some or all of our programs.

Off-Balance Sheet Arrangements

As of December 31, 2012, we did not have any off-balance sheet arrangements, as defined in Item 303(a)(4)(ii) of SEC Regulation S-K.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

Foreign Currency Exchange Risk

We are exposed to some foreign exchange currency risks because we have subsidiaries that are located in foreign countries. We do not engage in foreign currency hedging activities. Because we translate foreign currencies into United States dollars for reporting purposes, currency fluctuations have an impact on our financial results. We believe that our exposure to currency exchange fluctuation risk is mitigated by the fact that our foreign subsidiaries pay their financial obligations almost exclusively in their local currency. As of December 31, 2012, currency exchange rates did not have a material impact on our intercompany transactions with our foreign subsidiaries. However, a weakening of the dollar against the foreign exchange used in the home countries of our foreign subsidiaries could increase our cost of providing additional financing to our foreign subsidiaries in the future. Conversely, a strengthening of the dollar would decrease our cost of making additional investments in those subsidiaries.

Credit Risk

We place most of our cash in United States banks and we invest some of our cash in interest bearing instruments issued by United States banks or the United States Treasury. Deposits with banks may temporarily exceed the amount of insurance provided on such deposits. We monitor the cash balances in our accounts and adjust the cash balances as appropriate, but if the amount of a deposit at any time exceeds the federally insured amount at a bank, the uninsured portion of the deposit could be lost, in whole or in part, if the bank were to fail.

Our foreign subsidiaries deposit their cash in local banks, but if the amount of a deposit at any time exceeds the amount at a bank under the national banking insurance laws, the uninsured portion of the deposit could be lost, in whole or in part, if the bank were to fail.

Interest Rate Risk

We invest a portion of our cash in interest-bearing securities issued by the United States Treasury. The primary objective of our investments is to preserve principal and liquidity while earning a return on our invested capital, without incurring significant risks. The market value of fixed-rate instruments will decline if interest rates rise. Due in part to this factor, our future investment income may fall short of expectations due to changes in market conditions and in interest rates, or we may suffer losses in principal if forced to sell securities which may have declined in fair value due to changes in interest rates.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of

BioTime, Inc.

We have audited the accompanying consolidated balance sheets of BioTime, Inc. (the "Company") as of December 31, 2012 and 2011, and the related consolidated statements of operations, changes in equity, and cash flows for each of the years in the three-year period ended December 31, 2012. We have also audited the Company's internal control over financial reporting as of December 31, 2012, based on criteria established in Internal Control – Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO"). 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 the accompanying Management's Annual Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the 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 (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) 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 (3) 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 consolidated 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.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2012 and 2011, and the results of its operations and its cash flows for each of the years in the three-year in the period ended December 31, 2012, in conformity with U.S. generally accepted accounting principles. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2012, based on criteria established in Internal Control – Integrated Framework issued by COSO.

/s/ Rothstein Kass
New York, New York
March 18, 2013

Item 8. Financial Statements and Supplementary Data

BIOTIME, INC. AND SUBSIDIARIES

CONSOLIDATED BALANCE SHEETS

	December 31, 2012	December 31, 2011
ASSETS		
CURRENT ASSETS		
Cash and cash equivalents	$ 4,349,967	$ 22,211,897
Inventory	55,316	51,174
Prepaid expenses and other current assets	2,774,196	2,692,303
Total current assets	7,179,479	24,955,374
Equipment, net	1,348,554	1,347,779
Deferred license and consulting fees	669,326	843,944
Deposits	64,442	63,082
Intangible assets, net	20,486,792	18,619,516
TOTAL ASSETS	$ 29,748,593	$ 45,829,695
LIABILITIES AND EQUITY		
CURRENT LIABILITIES		
Accounts payable and accrued liabilities	$ 3,989,962	$ 2,681,111
Deferred grant income	-	261,777
Deferred license and subscription revenue, current portion	400,870	203,767
Total current liabilities	4,390,832	3,146,655
LONG-TERM LIABILITIES		
Deferred license revenue, net of current portion	768,678	899,551
Deferred rent, net of current portion	57,214	66,688
Other long term liabilities	237,496	258,620
Total long-term liabilities	1,063,388	1,224,859
Commitments and contingencies		
EQUITY		
Preferred Shares, no par value, authorized 1,000,000 shares; none issued		
Common shares, no par value, authorized 75,000,000 shares; 51,183,318 issued and 49,383,209 outstanding as of December 31, 2012 and 50,321,962 issued and 49,035,788 outstanding at December 31, 2011	119,821,243	115,144,787
Contributed capital	93,972	93,972
Accumulated other comprehensive income	(59,570)	(122,749)
Accumulated deficit	(101,895,712)	(80,470,009)
Treasury stock at cost: 1,800,109 and 1,286,174 shares at December 31, 2012 and 2011, respectively	(8,375,397)	(6,000,000
Total shareholders' equity	9,584,536	28,646,001
Noncontrolling interest	14,709,837	12,812,180
Total equity	24,294,373	41,458,181
TOTAL LIABILITIES AND EQUITY	$ 29,748,593	$ 45,829,695

See Notes to the Consolidated Financial Statements.

BIOTIME, INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF OPERATIONS

	Year Ended December 31,		
	2012	**2011**	**2010**
REVENUES:			
License fees	$ 899,998	$ 263,757	$ 292,904
Royalties from product sales	541,681	756,950	945,521
Grant income	2,222,458	2,767,181	2,336,325
Sale of research products	251,190	646,271	133,268
Total revenues	3,915,327	4,434,159	3,708,018
Cost of sales	(434,271)	(79,397)	(27,718)
Total revenues, net	3,481,056	4,354,762	3,680,300
EXPENSES:			
Research and development	(18,116,688)	(13,699,691)	(8,191,314)
General and administrative	(10,365,045)	(9,341,502)	(5,341,119)
Total expenses	(28,481,733)	(23,041,193)	(13,532,433)
Loss from operations	(25,000,677)	(18,686,431)	(9,852,133)
OTHER INCOME (EXPENSES):			
Interest income/(expense), net	19,383	29,727	(124,300)
Loss on sale of fixed assets	(6,856)	(6,246)	-
Modification cost of warrants	-	-	(2,142,201)
Other income/(expense), net	(317,710)	219,067	(68,573)
Total other income/(expenses), net	(305,183)	242,548	(2,335,074)
NET LOSS	(25,305,860)	(18,443,883)	(12,187,207)
Net loss attributable to the noncontrolling interest	3,880,157	1,928,383	1,002,589
NET LOSS ATTRIBUTABLE TO BIOTIME, INC.	(21,425,703)	(16,515,500)	(11,184,618)
Foreign currency translation gain/(loss)	63,179	(1,020,087)	897,338
COMPREHENSIVE LOSS	$ (21,362,524)	$ (17,535,587)	$ (10,287,280)
BASIC AND DILUTED LOSS PER COMMON SHARE	$ (0.44)	$ (0.35)	$ (0.28)
WEIGHTED AVERAGE NUMBER OF COMMON SHARES OUTSTANDING: BASIC AND DILUTED	49,213,687	47,053,518	40,266,311

See Notes to the Consolidated Financial Statements.

BIOTIME, INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

	Common Shares		Treasury Shares						
	Number of Shares	Amount	Number of Shares	Amount	Contributed Capital	Accumulated Deficit	Noncontrolling Interest	Accumulated other comprehensive income	Total Equity/ (Deficit)
BALANCE AT JANUARY 1, 2010	33,667,659	$ 59,722,318	-	$ -	$ 93,972	$ (52,769,891)	$ 4,000,590	$ -	$ 11,046,989
Sale of ReCyte subsidiary shares to noncontrolling interest							2,300,000		2,300,000
Noncontrolling interest in Cell Cure							5,894,255		5,894,255
Common shares issued as part of acquisition of ESI	1,383,400	11,011,864							11,011,864
Common shares retired as payment for exercise of options	(40,125)	(249,978)							(249,978)
Exercise of options	526,410	855,977							855,977
Warrants exercised	12,240,357	22,861,458							22,861,458
Warrants issued as part of acquisition of ESI		1,778,727							1,778,727
Warrants issued for services		1,979,036							1,979,036
Modification cost of warrants		2,142,202							2,142,202
Stock options granted for compensation		1,033,824							1,033,824
Stock options granted for compensation in subsidiary							61,172		61,172
Foreign currency translation gain								897,338	897,338
NET LOSS						(11,184,618)	(1,002,589)		(12,187,207)
BALANCE AT DECEMBER 31, 2010	47,777,701	$ 101,135,428	-	$ -	$ 93,972	$ (63,954,509)	$ 11,253,428	$ 897,338	$ 49,425,657
Common shares issued as part of acquisition of CTI assets	261,959	2,300,000							2,300,000
Common shares issued as part of merger with Glycosan	332,903	2,600,000							2,600,000
Treasury shares issued as part of investment in subsidiary	1,286,174	6,000,000	(1,286,174)	(6,000,000)					-
Common shares retired as payment for exercise of options	(6,435)	(28,067)							(28,067)
Exercise of options	450,660	251,981							251,981
Warrants exercised	219,000	425,000							425,000
Warrants issued as part of merger with Glycosan		954,879							954,879
Outside investment in subsidiaries							3,213,500		3,213,500
Stock options granted for compensation		1,505,566							1,505,566
Stock options granted for compensation in subsidiary							273,635		273,635
Foreign currency translation gain								(1,020,087)	(1,020,087)
NET LOSS						(16,515,500)	(1,928,383)		(18,443,883)
BALANCE AT DECEMBER 31, 2011	50,321,962	$ 115,144,787	(1,286,174)	$ (6,000,000)	$ 93,972	$ (80,470,009)	$ 12,812,180	$ (122,749)	$ 41,458,181
Common shares issued as part of merger with XenneX	448,429	1,802,684							1,802,684
Sales of common shares, net of fees paid and amortized	314,386	1,002,220							1,002,220
Exercise of options	98,541	286,552							286,552
Subsidiary shares issued as part of merger with XenneX							2,501,415		2,501,415
Stock options granted for compensation		1,560,469							1,560,469
Stock options granted for compensation in subsidiary		24,531					274,656		299,187
Outside investment in subsidiary with BioTime common shares			(592,533)	(2,750,003)			2,750,003		-
Sales of treasury shares			78,598	374,606					374,606
Outside investment in subsidiaries in cash							250,000		250,000
Outside investment in subsidiaries with stock							1,740		1,740
Foreign currency translation gain								63,179	63,179
NET LOSS						(21,425,703)	(3,880,157)		(25,305,860)
BALANCE AT DECEMBER 31, 2012	51,183,318	$ 119,821,243	(1,800,109)	$ (8,375,397)	$ 93,972	$ (101,895,712)	$ 14,709,837	$ (59,570)	$ 24,294,373

See Notes to the Consolidated Financial Statements.

BIOTIME, INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CASH FLOWS

	Year Ended December 31,		
	2012	**2011**	**2010**
CASH FLOWS FROM OPERATING ACTIVITIES:			
Net loss attributable to BioTime, Inc.	$ (21,425,703)	$ (16,515,500)	$ (11,184,618)
Net loss allocable to noncontrolling interest	(3,880,157)	(1,928,383)	(1,002,589)
Adjustments to reconcile net loss attributable to BioTime, Inc. to net cash used in operating activities:			
Depreciation expense	386,457	373,349	138,659
Amortization of intangible assets	2,446,975	1,991,200	790,117
Amortization of deferred consulting fees	598,465	598,465	520,212
Amortization of deferred license fees	109,500	109,500	227,167
Amortization of deferred rent	1,890	71,118	21,029
Amortization of deferred license, royalty and subscription revenues	(211,065)	(234,781)	(292,904)
Amortization of deferred grant revenues	(261,777)	-	(1,620)
Stock-based compensation	1,282,507	1,217,522	638,709
Options issued as independent director compensation	561,455	584,891	455,022
Reduction in receivables from the reversal of revenues	207,425	-	-
Write-off of security deposit	-	2,443	-
Write-off of expired inventory	-	1,510	4,008
Loss on sale or write-off of equipment	19,681	6,416	993
Bad debt expense	16,816	100,230	-
Modification cost of warrants	-	-	2,142,201
Share in net loss of associated company	-	-	258,493
Changes in operating assets and liabilities:			
Accounts receivable, net	36,322	(120,678)	(77,907)
Grant receivable	(416,787)	261,777	(256,714)
Inventory	(4,141)	31,094	(11,094)
Prepaid expenses and other current assets	(228,370)	(704,854)	(392,820)
Accounts payable and accrued liabilities	894,975	600,398	254,090
Other long term liabilities	(26,088)	(39,633)	-
Deferred revenues	212,102	-	36,682
Net cash used in operating activities	(19,679,518)	(13,593,916)	(7,732,884)
CASH FLOWS FROM INVESTING ACTIVITIES:			
Payments of license fees	-	(1,500)	(215,000)
Purchase of equipment	(400,810)	(960,281)	(220,771)
Cash acquired in connection with merger with XenneX	292,387	-	-
Cash paid, net of cash acquired for CTI assets	-	(246,850)	-
Cash acquired in connection with merger with Glycosan	-	5,908	-
Cash acquired, net of cash paid for Cell Cure Neurosciences shares	-	-	3,733,110
Note and related interest accrued converted to Cell Cure Neurosciences shares	-	-	(252,608)
Cash acquired, net of cash paid for acquisition of ESI	-	-	142,766
Cash proceeds from sale of equipment	4,500	-	6,000
Security deposit received/(paid)	(764)	10	3,922
Net cash provided by/(used in) investing activities	(104,687)	(1,202,713)	3,197,419

	Year Ended December 31,		
	2012	2011	2010
CASH FLOWS FROM FINANCING ACTIVITIES:			
Proceeds from exercises of stock options	286,552	223,914	605,998
Proceeds from exercises of warrants	-	425,000	22,861,458
Proceeds from issuance of common shares	1,131,279	-	-
Financing fees paid upon issuance of common shares	(37,279)	-	-
Proceeds from sale of treasury shares	282,826	-	-
Proceeds from sale of common shares of subsidiary	250,000	3,213,500	2,300,000
Net cash provided by financing activities	1,913,378	3,862,414	25,767,456
Effect of exchange rate changes on cash and cash equivalents	8,897	(178,812)	(96,148)
NET CHANGE IN CASH AND CASH EQUIVALENTS	(17,861,930)	(11,113,027)	21,135,843
CASH AND CASH EQUIVALENTS:			
At beginning of year	22,211,897	33,324,924	12,189,081
At end of year	$ 4,349,967	$ 22,211,897	$ 33,324,924
SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION:			
Cash paid during year for interest	$ 315	$ 326	$ 1,315
SUPPLEMENTAL SCHEDULE OF NONCASH FINANCING AND INVESTING ACTIVITIES :			
Common shares acquired in connection with investment in subsidiary as part of Share Exchange and Contribution Agreement	$ 2,750,003	$ -	$ -
Common shares issued in connection with investment in subsidiary (Treasury shares)	$ -	$ 6,000,000	$ -
Common shares issued in connection with the purchase of assets from CTI	$ -	$ 2,300,000	$ -
Common shares issued as part of merger with XenneX	$ 1,802,684	$ -	$ -
Common shares issued as part of merger with Glycosan	$ -	$ 2,600,000	$ -
Common shares issued as part of acquisition of ESI	$ -	$ -	$ 11,011,864
Common shares retired for exercise of options	$ -	$ -	$ 249,979
Warrants issued as part of merger with Glycosan	$ -	$ 954,879	$ -
Warrants issued as part of acquisition of ESI	$ -	$ -	$ 1,778,727
Warrants issued for services	$ -	$ -	$ 1,979,037

See Notes to the Consolidated Financial Statements.

BIOTIME, INC.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

1. Organization and Basis of Presentation

General– BioTime is a biotechnology company engaged in two areas of biomedical research and product development. BioTime has historically developed blood plasma volume expanders and related technology for use in surgery, emergency trauma treatment and other applications. BioTime's primary focus is in the field of regenerative medicine; specifically human embryonic stem ("hES") cell and induced pluripotent stem ("iPS") cell technology. Regenerative medicine refers to therapies based on stem cell technology that are designed to rebuild cell and tissue function lost due to degenerative disease or injury. hES and iPS cells provide a means of manufacturing every cell type in the human body and therefore show considerable promise for the development of a number of new therapeutic products. BioTime plans to develop stem cell products for research and therapeutic use through its subsidiaries. OncoCyte Corporation ("OncoCyte") is developing products and technologies to diagnose and treat cancer. ES Cell International Pte., Ltd. ("ESI"), a Singapore private limited company, develops and sells hES products for research use. BioTime Asia, Limited ("BioTime Asia"), a Hong Kong company, sells products for research use and may develop therapies to treat cancer, neurological, and orthopedic diseases. OrthoCyte Corporation ("OrthoCyte") is developing therapies to treat orthopedic disorders, diseases and injuries. ReCyte Therapeutics, Inc., formerly known as Embryome Sciences, Inc. ("ReCyte Therapeutics"), is developing therapies to treat vascular and blood diseases and disorders. Cell Cure Neurosciences Ltd. ("Cell Cure Neurosciences"), is an Israel-based biotechnology company focused on developing stem cell-based therapies for retinal and neurological disorders, including the development of retinal pigment epithelial cells for the treatment of macular degeneration, and treatments for multiple sclerosis. LifeMap Sciences, Inc. ("LifeMap Sciences") markets *GeneCards*®, the leading human gene database, and is developing an integrated database suite to complement *GeneCards*® that will also include the *LifeMap*™ database of embryonic development, stem cell research and regenerative medicine, and *MalaCards*, the human disease database. LifeMap Sciences will also market BioTime research products and *PanDaTox*, a database that can be used to identify genes and intergenic regions that are unclonable in E. coli, to aid in the discovery of new antibiotics and biotechnologically beneficial functional genes. LifeMap Sciences plans to commence research into the identification and development of novel cell lines for therapeutic products, including research on *PureStem*™ human embryonic progenitor cell lines ("hEPC") using the LifeMap Sciences proprietary discovery platform, with the goal of identifying those hEPC that have greatest potential for use in the development of cell-based therapies for degenerative diseases. BioTime Acquisition Corporation ("BAC") was incorporated on September 24, 2012. BAC was incorporated to explore opportunities to acquire assets and businesses in the field of stem cells and regenerative medicine.

BioTime is focusing a portion of its efforts in the field of regenerative medicine on the development and sale of advanced human stem cell products and technology that can be used by researchers at universities and other institutions, at companies in the bioscience and biopharmaceutical industries, and at other companies that provide research products to companies in those industries. Products for the research market generally can be sold without regulatory (FDA) approval, and are therefore relatively near-term business opportunities when compared to therapeutic products.

BioTime's operating revenues have been derived primarily from royalties and licensing fees related to the sale of its plasma volume expander product, *Hextend*®. BioTime began to make its first stem cell research products available during 2008, but has not yet generated significant revenues from the sale of those products. BioTime's ability to generate substantial operating revenue in the near term depends upon its success in developing and marketing or licensing its plasma volume expanders and stem cell products and technology for medical and research use. On April 29, 2009, the California Institute of Regenerative Medicine ("CIRM") awarded BioTime a $4,721,706 grant for a stem cell research project related to its *ACTCellerate*™ technology. The CIRM grant covered the period of September 1, 2009 through August 31, 2012 and was paid in quarterly installments. BioTime recognized grant revenues of $1,047,107 during 2012, of which $261,777 was collected in 2011, $392,665 during 2012 and $392,664 which remain uncollected as of December 31, 2012. During 2011, BioTime received four quarterly payments totaling $1,570,663. Grant revenues in 2012 also include $47,507, $18,145, and $1,109,699 from other grants received by BioTime, LifeMap Sciences, and Cell Cure Neurosciences, respectively. Grant revenues in 2011 also include $27,917, $44,544, $50,389 and $1,073,668 from other grants received by BioTime, OncoCyte, OrthoCyte, and Cell Cure Neurosciences, respectively.

The consolidated balance sheets as of December 31, 2012 and 2011, the consolidated statements of operations for the years ended December 31, 2012, 2011, and 2010, the consolidated statements of changes in equity for the years ended December 31, 2012, 2011, and 2010, and the consolidated statements of cash flows for the years ended December 31, 2012, 2011, and 2010 have been prepared by BioTime's management in accordance with instructions from Form 10-K.

Principles of consolidation – BioTime's consolidated financial statements include the accounts of its subsidiaries. The following table reflects BioTime's ownership of the outstanding shares of its subsidiaries.

Subsidiary	BioTime Ownership	Country
ReCyte Therapeutics, Inc. (formerly Embryome Sciences, Inc.)	95.2%	USA
OncoCyte Corporation	75.3%	USA
OrthoCyte Corporation	100%	USA
ES Cell International Pte., Ltd.	100%	Singapore
BioTime Asia, Limited	81%	Hong Kong
Cell Cure Neurosciences, Ltd.	53.6% (1)	Israel
LifeMap Sciences, Inc.	73.2%	USA
LifeMap Sciences, Ltd.	(2)	Israel
BioTime Acquisition Corporation	96.7%(3)	USA

(1) In January 2013 Cell Cure Neurosciences issued additional ordinary shares to BioTime in exchange for BioTime common shares which increased BioTime's ownership, directly and through ESI, to approximately 62.6%. See Note 23.
(2) LifeMap Sciences, Ltd. is a wholly-owned subsidiary of LifeMap Sciences, Inc.
(3) BioTime expects that its percentage ownership will be reduced to approximately 71.6% after BAC issues common stock to BioTime and Geron Corporation pursuant to an Asset Contribution Agreement and sells common stock and warrants to a private investor for cash in a related transaction.

All material intercompany accounts and transactions have been eliminated in consolidation. The consolidated financial statements are presented in accordance with accounting principles generally accepted in the U.S. and with the accounting and reporting requirements of Regulation S-X of the Securities and Exchange Commission ("SEC"). As of December 31, 2012, BioTime consolidated ReCyte Therapeutics, OncoCyte, OrthoCyte, ESI, Cell Cure Neurosciences, BioTime Asia, LifeMap Sciences, Inc., LifeMap Sciences, Ltd., and BAC as BioTime has the ability to control their operating and financial decisions and policies through its ownership, and the non-controlling interest is reflected as a separate element of equity on BioTime's consolidated balance sheet.

Certain significant risks and uncertainties - BioTime's operations are subject to a number of factors that can affect its operating results and financial condition. Such factors include but are not limited to, the following: the results of clinical trials of BioTime's pharmaceutical products and medical devices; BioTime's ability to obtain FDA and foreign regulatory approval to market its pharmaceutical and medical device products; BioTime's ability to develop new stem cell research products and technologies; competition from products manufactured and sold or being developed by other companies; the price and demand for BioTime products; BioTime's ability to obtain additional financing and the terms of any such financing that may be obtained; BioTime's ability to negotiate favorable licensing or other manufacturing and marketing agreements for its products; the availability of ingredients used in BioTime's products; and the availability of reimbursement for the cost of BioTime's pharmaceutical products and medical devices (and related treatment) from government health administration authorities, private health coverage insurers, and other organizations.

2. Summary of Significant Accounting Policies

Use of estimates – The preparation of consolidated financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Revenue recognition – BioTime complies with SEC Staff Accounting Bulletin guidance on revenue recognition. Royalty revenues consist of product royalty payments. License fee revenues consist of fees under license agreements and are recognized when earned and reasonably estimable and also include subscription and advertising revenue from our online databases based upon respective subscription or advertising periods. BioTime recognizes revenue in the quarter in which the royalty reports are received, rather than the quarter in which the sales took place. When BioTime is entitled to receive up-front nonrefundable licensing or similar fees pursuant to agreements under which BioTime has no continuing performance obligations, the fees are recognized as revenues when collection is reasonably assured. When BioTime receives up-front nonrefundable licensing or similar fees pursuant to agreements under which BioTime does have continuing performance obligations, the fees are deferred and amortized ratably over the performance period. If the performance period cannot be reasonably estimated, BioTime amortizes nonrefundable fees over the life of the contract until such time that the performance period can be more reasonably estimated. Milestone payments, if any, related to scientific or technical achievements are recognized in income when the milestone is accomplished if (a) substantive effort was required to achieve the milestone, (b) the amount of the milestone payment appears reasonably commensurate with the effort expended, and (c) collection of the payment is reasonably assured. Grant income and the sale of research products are recognized as revenue when earned. Revenues from the sale of research products are primarily derived from the sale of hydrogels and stem cell products.

Cash and cash equivalents – BioTime considers all highly liquid investments purchased with an original maturity of three months or less to be cash equivalents.

Accounts receivable and allowance for doubtful accounts - Trade accounts receivable and grants receivable are presented in the prepaid expenses and other current assets line item of the consolidated balance sheet. Total trade receivables amounted to approximately $404,000 and $353,000 and grants receivable amounted to approximately $1,018,000 and $630,000 as of December 31, 2012 and 2011, respectively. Some of these amounts are deemed uncollectible; as such BioTime recognized allowance for doubtful accounts in the amount of $116,816 and $100,000 as of December 31, 2012 and 2011, respectively. BioTime evaluates the collectability of its receivables based on a variety of factors, including the length of time receivables are past due and significant one-time events and historical experience. An additional reserve for individual accounts will be recorded if BioTime becomes aware of a customer's inability to meet its financial obligations, such as in the case of bankruptcy filings or deterioration in the customer's operating results or financial position. If circumstances related to customers change, estimates of the recoverability of receivables would be further adjusted.

Concentrations of credit risk – Financial instruments that potentially subject BioTime to significant concentrations of credit risk consist primarily of cash and cash equivalents. BioTime limits the amount of credit exposure of cash balances by maintaining its accounts in high credit quality financial institutions. Cash equivalent deposits with financial institutions may occasionally exceed the limits of insurance on bank deposits; however, BioTime has not experienced any losses on such accounts.

Equipment – Equipment is stated at cost. Equipment is being depreciated using the straight-line method over a period of 36 to 120 months. See Note 4.

Inventory – Inventories are stated at the lower of cost or market. Cost, which includes amounts related to materials, labor, and overhead, is determined in a manner which approximates the first-in, first-out ("FIFO") method.

Treasury stock – BioTime accounts for BioTime common shares issued to subsidiaries for future potential working capital needs as treasury stock on the consolidated balance sheet. BioTime has the intent and ability to register any unregistered shares to support the marketability of the shares.

Cost of sales – BioTime accounts for the cost of research products acquired for sale and any royalties paid as a result of any revenues in accordance with the terms of the respective licensing agreements as cost of sales on the consolidated statement of operations.

Patent costs – Costs associated with obtaining patents on products or technology developed are expensed as general and administrative expenses when incurred. This accounting is in compliance with guidance promulgated by the Financial Accounting Standards Board (the "FASB") regarding goodwill and other intangible assets.

Reclassification – Certain prior year amounts have been reclassified to conform to the current year presentation.

Research and development – BioTime complies with FASB requirements governing accounting for research and development costs. Research and development costs are expensed when incurred, and consist principally of salaries, payroll taxes, consulting fees, research and laboratory fees, and license fees paid to acquire patents or licenses to use patents and other technology from third parties.

Foreign currency translation gain/(loss) and Comprehensive loss - In countries in which BioTime operates, and the functional currency is other than the U.S. dollar, assets and liabilities are translated using published exchange rates in effect at the consolidated balance sheet date. Revenues and expenses and cash flows are translated using an approximate weighted average exchange rate for the period. Resulting translation adjustments are recorded as a component of accumulated other comprehensive income on the consolidated balance sheet. For the fiscal years ended December 31, 2012 and 2011, comprehensive loss includes gain and loss of $63,179 and $1,020,087, respectively which is largely from foreign currency translation. For the fiscal year ended December 31, 2012 and 2011, foreign currency transaction loss amounted to $34,233 and $14,829, respectively.

Income taxes – BioTime accounts for income taxes in accordance with the accounting principles generally accepted in the United States of America ("GAAP") requirements, which prescribe the use of the asset and liability method, whereby deferred tax asset or liability account balances are calculated at the balance sheet date using current tax laws and rates in effect. Valuation allowances are established when necessary to reduce deferred tax assets when it is more likely than not that a portion or all of the deferred tax assets will not be realized. The FASB guidance also prescribes a recognition threshold and a measurement attribute for the financial statement recognition and measurement of tax positions taken or expected to be taken in a tax return. For those benefits to be recognized, a tax position must be more-likely-than-not sustainable upon examination by taxing authorities. BioTime recognizes accrued interest and penalties related to unrecognized tax benefits as income tax expense. No amounts were accrued for the payment of interest and penalties as of December 31, 2012 and 2011. Management is currently unaware of any tax issues under review.

Stock-based compensation – BioTime adopted accounting standards governing share-based payments, which require the measurement and recognition of compensation expense for all share-based payment awards made to directors and employees, including employee stock options, based on estimated fair values. In March 2005, the SEC issued additional guidelines which provide supplemental implementation guidance for valuation of share-based payments. BioTime has applied the provisions of this guidance in such valuations as well. Consistent with those guidelines, BioTime utilizes the Black-Scholes Merton option pricing model. BioTime's determination of fair value of share-based payment awards on the date of grant using that option-pricing model is affected by BioTime's stock price as well as by assumptions regarding a number of highly complex and subjective variables. These variables include, but are not limited to, BioTime's expected stock price volatility over the term of the awards, and actual and projected employee stock option exercise behaviors. The expected term of options granted is derived from historical data on employee exercises and post-vesting employment termination behavior. The risk-free rate is based on the U.S. Treasury rates in effect during the corresponding period of grant. Although the fair value of employee stock options is determined in accordance with recent FASB guidance, changes in the subjective assumptions can materially affect the estimated value. In management's opinion, the existing valuation models, including Black-Scholes Merton, may not provide an accurate measure of the fair value of BioTime's employee stock options because the option-pricing model value may not be indicative of the fair value that would be established in a willing buyer/willing seller market transaction.

Impairment of long-lived assets – BioTime's long-lived assets, including intangible assets, are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be fully recoverable. If an impairment indicator is present, BioTime will evaluate recoverability by a comparison of the carrying amount of the assets to future undiscounted net cash flows expected to be generated by the assets. If the assets are impaired, the impairment will be recognized and is measured by the amount by which the carrying amount exceeds the estimated fair value of the assets.

Deferred license and consulting fees – Deferred license and consulting fees consist of the value of warrants issued to third parties for services and to the minority shareholder in BioTime Asia for consulting services, and deferred license fees paid to acquire rights to use the proprietary technologies of third parties. The value of the warrants is being amortized over the period the services are being provided, and the license fees are being amortized over the estimated useful lives of the licensed technologies or licensed research products. See Note 6.

Loss per share – Basic net loss per share is computed by dividing net loss attributable to BioTime, Inc. by the weighted-average number of common shares outstanding for the period. Diluted net loss per share reflects the weighted-average number of common shares outstanding plus the potential effect of dilutive securities or contracts which are convertible to common shares, such as options and warrants (using the treasury stock method) and shares issuable in future periods, except in cases where the effect would be anti-dilutive. Diluted loss per share for years ended December 31, 2012, 2011, and 2010, and excludes any effect from 1,800,109 treasury shares, 3,681,301 options and 556,613 warrants, 1,286,174 treasury shares, 3,408,905 options and 636,613 warrants, and 3,320,590 options and 649,000 warrants, respectively, as the inclusion of those options and warrants would be antidilutive.

Fair value of financial instruments – The fair value of BioTime's assets and liabilities, which qualify as financial instruments under FASB guidance regarding disclosures about fair value of financial instruments, approximate the carrying amounts presented in the accompanying consolidated balance sheets.

Effect of recently issued and recently adopted accounting pronouncements – In June 2011, the FASB issued ASU No. 2011-05, *Comprehensive Income* (ASC Topic 220): *Presentation of Comprehensive Income*, ("ASU 2011-05") which amends current comprehensive income guidance. This accounting update eliminates the option to present the components of other comprehensive income as part of the statement of shareholders' equity. Instead, BioTime must report comprehensive income in either a single continuous statement of comprehensive income which contains two sections, net income and other comprehensive income, or in two separate but consecutive statements. ASU 2011-05 became effective for public companies during the interim and annual periods beginning after December 15, 2011 with early adoption permitted. BioTime does not believe that the adoption of ASU 2011-05 will have a material impact on its consolidated results of operation and financial condition.

3. Inventory

At December 31, 2012, BioTime, held $41,494 of inventory of finished products on-site at its corporate headquarters in Alameda, California. At that same date $13,822 of inventory of finished products was held by a third party on consignment. At December 31, 2011, BioTime, held $37,096 of inventory of finished products on-site at its corporate headquarters in Alameda, California. At that same date $14,078 of inventory of finished products was held by a third party on consignment.

4. Equipment

At December 31, 2012 and December 31, 2011, equipment, furniture and fixtures were comprised of the following:

	2012	2011
Equipment, furniture and fixtures	$ 2,098,812	$ 1,900,090
Accumulated depreciation	(750,258)	(552,311)
Equipment net of accumulated depreciation	$ 1,348,554	$ 1,347,779

Depreciation expense amounted to $386,457 and $373,349 for the years ended December 31, 2012 and 2011, respectively. The difference between the depreciation expense recognized in the consolidated statement of operations and the increase in accumulated depreciation of $197,947 per the consolidated balance sheet is partially attributed to a write off of $196,000 of fully depreciated assets offset by foreign currency rates.

5. Intangible assets

At December 31, 2012 and December 31, 2011, intangible assets and accumulated intangible assets were comprised of the following:

	2012	2011
Intangible assets	$ 25,702,909	$ 21,429,488
Accumulated amortization	(5,216,117)	(2,809,972)
Intangible assets, net	$ 20,486,792	$ 18,619,516

BioTime amortizes its intangible assets over an estimated period of 10 years on a straight line basis. BioTime recognized $2,446,975 in amortization expense of intangible assets during the year ended December 31, 2012. The difference between the amortization expense recognized in the consolidated statement of operations and the increase in accumulated amortization of $40,830 per the consolidated balance sheet is entirely attributed to foreign currency rates. Amortization expense for the year ended December 31, 2011 amounted to $1,991,200. See Note 11, 12, 13, 14, and 15.

Amortization of intangible assets for periods subsequent to December 31, 2012 is as follows:

Year Ended December 31,	Amortization Expense
2013	$ 2,570,291
2014	2,570,291
2015	2,570,291
2016	2,570,291
2017	2,570,291
Thereafter	7,635,337
Total	$ 20,486,792

6. Royalty Obligation and Deferred License Fees

BioTime amortizes deferred license fees over the estimated useful lives of the licensed technologies or licensed research products. BioTime is applying a 10 year estimated useful life to the technologies and products that it is currently licensing. The estimation of the useful life any technology or product involves a significant degree of inherent uncertainty, since the outcome of research and development or the commercial life a new product cannot be known with certainty at the time that the right to use the technology or product is acquired. BioTime will review its amortization schedules for impairments that might occur earlier than the original expected useful lives.

On January 3, 2008, BioTime entered into a Commercial License and Option Agreement with Wisconsin Alumni Research Foundation ("WARF"). The WARF license permits BioTime to use certain patented and patent pending technology belonging to WARF, as well as certain stem cell materials, for research and development purposes, and for the production and marketing of products used as research tools, including in drug discovery and development. BioTime or ReCyte Therapeutics will pay WARF royalties on the sale of products and services using the technology or stem cells licensed from WARF. The royalty will range from 2% to 4%, depending on the kind of products sold. The royalty rate is subject to certain reductions if BioTime also becomes obligated to pay royalties to a third party in order to sell a product. In March 2009, BioTime amended its license agreement with WARF. The amendment increased the license fee from the original $225,000 to $295,000, of which $225,000 was paid in cash and $70,000 was paid by delivering BioTime common shares having a market value of $70,000 as of March 2, 2009. The amendment extended until March 2, 2010 the dates for payment of the $215,000 balance of the cash license fee and $20,000 in remaining reimbursement of costs associated with preparing, filing, and maintaining the licensed patents. The commencement date for payment of an annual $25,000 license maintenance fee was also extended to March 2, 2010. The licensing fees less the amortized portion were included in deferred license fees in BioTime's consolidated balance sheet as of December 31, 2012 and 2011.

On July 10, 2008, ReCyte Therapeutics entered into a License Agreement with Advanced Cell Technology, Inc. ("ACT"), under which ReCyte Therapeutics acquired exclusive worldwide rights to use ACT's *ACTCellerate*™ technology for methods to accelerate the isolation of novel cell strains from pluripotent stem cells. ReCyte subsequently assigned the license to BioTime. ReCyte Therapeutics paid ACT a $250,000 license fee and will pay an 8% royalty on sales of products, services, and processes that utilize the licensed technology. Once a total of $1,000,000 of royalties has been paid, no further royalties will be due. The license will expire in twenty years or upon the expiration of the last to expire of the licensed patents, whichever is later. The $250,000 license fee less the amortized portion is included in deferred license fees in BioTime's consolidated balance sheet as of December 31, 2012 and 2011.

On August 15, 2008, ReCyte Therapeutics entered into a License Agreement and a Sublicense Agreement with ACT under which ReCyte Therapeutics acquired world-wide rights to use an array of ACT technology (the "ACT License") and technology licensed by ACT from affiliates of Kirin Pharma Company, Limited (the "Kirin Sublicense"). The ACT License and Kirin Sublicense permit the commercialization of products in human therapeutic and diagnostic product markets.

The technology licensed by ReCyte Therapeutics covers methods to transform cells of the human body, such as skin cells, into an embryonic state in which the cells will be pluripotent. Under the ACT License, ReCyte Therapeutics paid ACT a $200,000 license fee and will pay a 5% royalty on sales of products, services, and processes that utilize the licensed ACT technology, and 20% of any fees or other payments (other than equity investments, research and development costs, loans and royalties) received by ReCyte Therapeutics from sublicensing the ACT technology to third parties. Once a total of $600,000 of royalties has been paid, no further royalties will be due. The license will expire in twenty years or upon the expiration of the last-to-expire of the licensed patents, whichever is later. The $200,000 license fee payment less the amortized portion is included in deferred license fees in BioTime's consolidated balance sheet as of December 31, 2012 and 2011.

Under the Kirin Sublicense, ReCyte Therapeutics has paid ACT a $50,000 license fee and will pay a 3.5% royalty on sales of products, services, and processes that utilize the licensed ACT technology, and 20% of any fees or other payments (other than equity investments, research and development costs, loans and royalties) received by ReCyte Therapeutics from sublicensing the Kirin Technology to third parties. ReCyte Therapeutics will also pay to ACT or to an affiliate of Kirin Pharma Company, Limited ("Kirin"), annually, the amount, if any, by which royalties payable by ACT under its license agreement with Kirin are less than the $50,000 annual minimum royalty due. Those payments by ReCyte Therapeutics will be credited against other royalties payable to ACT under the Kirin Sublicense. The license will expire upon the expiration of the last to expire of the licensed patents, or May 9, 2016 if no patents are issued. The $50,000 license fee payment less the amortized portion is included in deferred license fees in BioTime's consolidated balance sheet as of December 31, 2012 and 2011.

On February 29, 2009, ReCyte Therapeutics entered into a Stem Cell Agreement with Reproductive Genetics Institute ("RGI"). In partial consideration of the rights and licenses granted to ReCyte Therapeutics by RGI, BioTime issued to RGI 32,259 common shares, having a market value of $50,000 on the effective date of the Stem Cell Agreement. This $50,000 payment less the amortized portion is included in deferred license fees in BioTime's consolidated balance sheet as of December 31, 2012 and 2011.

Through BioTime's acquisition of the assets of Cell Targeting, Inc. during March 2011, BioTime acquired a royalty-bearing, exclusive, worldwide license from the Sanford-Burnham Medical Research Institute ("SBMRI") to use certain patents pertaining to homing peptides for preclinical research investigations of cell therapy treatments, and to enhance cell therapy products for the treatment and prevention of disease and injury in conjunction with BioTime's own proprietary technology or that of a third party. BioTime assigned the SBMRI license to OncoCyte during July 2011. OncoCyte will pay SBMRI a royalty of 4% on the sale of pharmaceutical products, and 10% on the sale of any research-use products that OncoCyte develops using or incorporating the licensed technology; and 20% of any payments OncoCyte receives for sublicensing the patents to third parties. The royalties payable to SBMRI may be reduced by 50% if royalties or other fees must be paid to third parties in connection with the sale of any products. An annual license maintenance fee is payable each year during the term of the license, and after commercial sales of royalty bearing products commence, the annual fee will be credited towards OncoCyte's royalty payment obligations for the applicable year. OncoCyte will reimburse SBMRI for 25% of the costs incurred in filing, prosecuting, and maintaining patent protection, subject to OncoCyte's approval of the costs. OncoCyte incurred no royalty expenses during the year. See Note 13.

Cell Cure Neurosciences has entered into an Amended and Restated Research and License Agreement with Hadasit Medical Research Services and Development, Ltd. ("Hadasit") under which Cell Cure Neurosciences received an exclusive license to use certain of Hadasit's patented technologies for the development and commercialization for hES cell-derived cell replacement therapies for retinal degenerative diseases. Cell Cure Neurosciences paid Hadasit 249,058 New Israeli Shekels as a reimbursement for patent expenses incurred by Hadasit, and pays Hadasit quarterly fees for research and product development services under a related Product Development Agreement.

If Teva Pharmaceutical Industries Ltd. ("Teva") exercises its option to license *OpRegen*™ or *OpRegen-Plus*™ under the terms of a Research and Exclusive License Option Agreement (the "Teva License Option Agreement"), Cell Cure Neurosciences will pay Hadasit 30% of all payments made by Teva to Cell Cure Neurosciences, other than payments for research, reimbursements of patent expenses, loans or equity investments.

If Teva does not exercise its option and Cell Cure Neurosciences instead commercializes *OpRegen*™ or *OpRegen-Plus*™ itself or sublicenses the Hadasit patents to a third party for the completion of development or commercialization of *OpRegen*™ or *OpRegen-Plus*™, Cell Cure Neurosciences will pay Hadasit a 5% royalty on sales of products that utilize the licensed technology. Cell Cure Neurosciences will also pay sublicensing fees ranging from 10% to 30% of any payments Cell Cure Neurosciences receives from sublicensing the Hadasit patents to companies other than Teva. Commencing in January 2017, Hadasit will be entitled to receive an annual minimum royalty payment of $100,000 that will be credited toward the payment of royalties and sublicense fees otherwise payable to Hadasit during the calendar year. If Cell Cure Neurosciences or a sublicensee other than Teva paid royalties during the previous year, Cell Cure Neurosciences may defer making the minimum royalty payment until December and will be obligated to make the minimum annual payment to the extent that royalties and sublicensing fee payments made during that year are less than $100,000.

If Teva does not exercise its option under the Teva License Option Agreement and instead Cell Cure Neurosciences or a sublicensee other than Teva conducts clinical trials of *OpRegen*™ or *OpRegen-Plus*™, Hadasit will be entitled to receive certain payments from Cell Cure Neurosciences upon the first attainment of certain clinical trial milestones in the process of seeking regulatory approval to market a product developed by Cell Cure Neurosciences using the licensed patents. Hadasit will receive $250,000 upon the enrollment of patients in the first Phase I clinical trial, $250,000 upon the submission of Phase II clinical trial data to a regulatory agency as part of the approval process, and $1 million upon the enrollment of the first patient in the first Phase III clinical trial.

Through the merger of Glycosan into OrthoCyte during March 2011, BioTime acquired a license from the University of Utah to use certain patents in the production and sale of certain hydrogel products. Under the License Agreement, the scope of which was expanded by an amendment during August 2012, BioTime will pay a 3% royalty on sales of products and services performed that utilize the licensed patents. Commencing in 2014, BioTime will be obligated to pay minimum royalties to the extent that actual royalties on products sales and services utilizing the patents are less than the minimum royalty amount. The minimum royalty amounts are $15,000 in 2013, $22,500 in 2014, and $30,000 each year thereafter during the term of the License Agreement. BioTime shall also pay the University of Utah 30% of any sublicense fees or royalties received under any sublicense of the licensed patents. See Note 14.

BioTime will pay the University of Utah $5,000 upon the issuance of each of the first five licensed patents issued in the U.S., subject to reduction to $2,500 for any patent that the University has licensed to two or more other licensees for different uses. BioTime will also pay a $225,000 milestone fee within six months after the first sale of a “tissue engineered product” that utilizes a licensed patent. A tissue engineered product is defined as living human tissues or cells on a polymer platform, created at a place other than the point-of-care facility, for transplantation into a human patient.

On August 23, 2011, BioTime entered into a License Agreement with Cornell University for the worldwide development and commercialization of technology for the differentiation of human embryonic stem cells into vascular endothelial cells.

Cornell will be entitled to receive a nominal initial license fee and nominal annual license maintenance fees. The obligation to pay annual license maintenance fees will end when the first human therapeutic products developed under the license is sold. BioTime will pay Cornell a milestone payment upon the achievement of a research product sale milestone amount, and will make milestone payments upon the attainment of certain FDA approval milestones for therapeutic products developed under the license, including (i) the first Phase II clinical trial dosing of a human therapeutic product, (ii) the first Phase III clinical trial dosing of a human therapeutic product; (iii) FDA approval of the first human therapeutic product for age-related vascular disease; and (iv) FDA approval of the first human therapeutic product for cancer.

BioTime will pay Cornell royalties on the sale of products and services using the license, and will share with Cornell a portion of any cash payments, other than royalties, that BioTime receives for the grant of sublicenses to non-affiliates. The potential royalty percentage rates to be paid to Cornell will be in the low to mid-single digit range depending on the product. BioTime will also reimburse Cornell for costs related to the patent applications and any patents that may issue that are covered by the license.

In conjunction with the License Agreement, BioTime also entered into a Sponsored Research Agreement under which scientists at Weill Cornell Medical College will engage in certain research for BioTime over a three year period beginning August 2011.

As of December 31, 2012, amortization of deferred license fees was as follows:

Year Ended December 31,	Deferred License Fees
2013	$ 109,500
2014	109,500
2015	109,500
2016	109,500
2017	109,500
Thereafter	101,333
Total	$ 648,833

7. Accounts Payable and Accrued Liabilities

At December 31, 2012 and 2011, accounts payable and accrued liabilities consist of the following:

	December 31,	
	2012	2011
Accounts payable	$ 1,168,077	$ 1,118,112
Accrued bonuses	497,843	583,620
Other accrued liabilities	2,324,042	979,379
	$ 3,989,962	$ 2,681,111

8. Related Party Transactions

BioTime currently pays $5,050 per month for the use of approximately 900 square feet of office space in New York City, which is made available to BioTime on a month-by-month basis by one of its directors at his cost for use in conducting meetings and other business affairs.

In July and December 2012, LifeMap Sciences sold 1,714,287 shares of common stock to certain investors, including two of BioTime's largest shareholders, for $250,000 cash and 592,533 BioTime common shares having a market value of $2,750,000. See Note 16.

9. Equity

BioTime, as part of rights offerings and other agreements, has issued warrants to purchase its common shares. Activity related to warrants in 2012, 2011, and 2010 is presented in the table below:

	Number of Warrants	Per share exercise price	Weighted Average Exercise Price
Outstanding, January 1, 2010	12,264,345	$ 2.00	$ 1.99
Granted in 2010	650,000	3.00 - 10.00	6.77
Exercised in 2010	(12,240,357)	1.818 - 2.00	1.87
Exercised in 2010	(24,988)	2.00	2.00
Outstanding, December 31, 2010	649,000	$ .68 - 10.00	$ 6.42
Granted in 2011	206,613	10.00	10.00
Exercised in 2011	(219,000)	.68 - 3.00	1.94
Outstanding, December 31, 2011	636,613	$ 3.00 – 10.00	$ 9.13
Expired in 2012	(80,000)	3.00	3.00
Outstanding, December 31, 2012	556,613	$ 10.00	$ 10.00

At December 31, 2012, 556,613 warrants to purchase common shares with a weighted average exercise price of $10.00 and a weighted average remaining contractual life of 1.32 years were outstanding.

At December 31, 2011, 636,613 warrants to purchase common shares with a weighted average exercise price of $9.13 and a weighted average remaining contractual life of 1.68 years were outstanding.

At December 31, 2010, 649,000 warrants to purchase common shares with a weighted average exercise price of $6.42 and a weighted average remaining contractual life of 2.42 years were outstanding.

A summary of all option activity under the 2007, 2010, and 2011 subsidiary option plans for subsidiaries (see Note 10) for the years ended December 31, 2012 and 2011 is as follows:

	Options Available for Grant	Number of Options Outstanding	Weighted Average Exercise Price
January 1, 2011	7,703,060	4,312,640	$ 0.74
Added upon adoption of option plan in 2011	8,000,000	-	-
Granted in 2011	(4,685,000)	4,685,000	0.36
Forfeited/Exercised in 2011	200,000	(200,000)	0.05
December 31, 2011	11,218,060	8,797,640	$ 0.56
Reverse stock split and change in plan in 2012	(3,697,014)	(2,460,717)	-
Granted in 2012	(1,479,490)	1,479,490	1.39
Forfeited/Exercised in 2012	-	-	-
December 31, 2012	6,041,556	7,816,413	$ 0.93

Preferred Shares

BioTime is authorized to issue 1,000,000 shares of preferred stock. The preferred shares may be issued in one or more series as the board of directors may by resolution determine. The board of directors is authorized to fix the number of shares of any series of preferred shares and to determine or alter the rights, references, privileges, and restrictions granted to or imposed on the preferred shares as a class, or upon any wholly unissued series of any preferred shares. The board of directors may, by resolution, increase or decrease (but not below the number of shares of such series then outstanding) the number of shares of any series of preferred shares subsequent to the issue of shares of that series.

As of December 31, 2012 and 2011, BioTime has no issued and outstanding preferred shares.

Common shares

BioTime is authorized to issue 75,000,000 common shares with no par value. As of December 31, 2012, BioTime has 51,183,318 issued and 49,383,209 outstanding common shares. As of December 31, 2011, BioTime had 50,321,962 issued and 49,035,788 outstanding common shares. The difference of 1,800,109 and 1,286,174 common shares as of December 31, 2012 and 2011, respectively is attributed to treasury shares held by BioTime subsidiaries which are accounted for as treasury stock on the consolidated balance sheet.

Significant common share transactions during the year ended December 31, 2012 are as follows:

- BioTime received total cash of $286,552 for the exercise of 98,541 options at a weighted average exercise price of $2.91.
- BioTime issued 448,429 common shares as consideration for the merger with XenneX.
- In July and in December 2012, LifeMap Sciences received $250,000 cash and 592,533 BioTime common shares having a market value of $2,750,003 from certain private investors in exchange for 1,714,287 LifeMap Sciences shares of common stock. LifeMap Sciences sold 78,598 BioTime common shares for gross proceeds of $282,826 during 2012 and the remaining 513,935 BioTime common shares held by LifeMap Sciences are accounted for as treasury stock as of December 31, 2012. See Note 8.
- During 2012 BioTime sold 314,386 BioTime common shares for gross proceeds of $1,131,279 at prevailing market prices through BioTime's $25 million Controlled Equity Offering facility which was established with Cantor Fitzgerald & Co. offset by fees of $37,279 recognized in connection with the sale of these shares and adjustment to equity for the loss of $91,780 from the sale of BioTime common shares held by LifeMap.

Significant common share transactions during the year ended December 31, 2011 were as follows:

- BioTime received total cash of $223,914 and $425,000 for the exercise of 450,660 options and 219,000 warrants, respectively. Average cash receipts were $0.50 for options and $1.94 for warrants.
- BioTime issued 261,959 common shares as part of its consideration for the assets acquired from CTI.
- BioTime issued 332,903 common shares and 206,613 warrants as consideration for acquisition of Glycosan.
- BioTime retired 6,435 common shares as payment for the exercise of employee options.
- BioTime issued 1,286,174 common shares in connection with its investment in OncoCyte. This increased its equity ownership interest in OncoCyte to approximately 75.3%. These shares are presented as treasury stock on the consolidated balance sheet.

10. Stock Option Plans

During 2002, BioTime adopted the 2002 Employee Stock Option Plan (the "2002 Plan"), which was amended in 2004, 2007, and 2009 to reserve additional common shares for issuance under options or restricted stock awards granted to eligible persons. The 2002 Plan expired during September 2012 and no additional grants of options or awards of restricted stock may be made under the 2002 Plan.

During December 2012, BioTime's Board of Directors approved the 2012 Equity Incentive Plan (the "2012 Plan") under which BioTime has reserved 4,000,000 common shares for the grant of stock options or the sale of restricted stock. No options may be granted under the 2012 Plan more than ten years after the date upon which the 2012 Plan was adopted by the Board of Directors, and no options granted under the 2012 Plan may be exercised after the expiration of ten years from the date of grant. Under the 2012 Plan, options to purchase common shares may be granted to employees, directors and certain consultants at prices not less than the fair market value at date of grant, subject to certain limited exceptions for options granted in substitution of other options. Options may be fully exercisable immediately, or may be exercisable according to a schedule or conditions specified by the Board of Directors or the Compensation Committee. The 2012 Plan also permits BioTime to award restricted stock for services rendered or to sell common shares to employees subject to vesting provisions under restricted stock agreements that provide for forfeiture of unvested shares upon the occurrence of specified events under a restricted stock award agreement. BioTime may permit employees or consultants, but not officers or directors, who purchase stock under restricted stock purchase agreements, to pay for their shares by delivering a promissory note that is secured by a pledge of their shares.

BioTime may also grant stock appreciation rights ("SARs") and hypothetical units issued with reference to BioTime common shares ("Restricted Stock Units") under the Plan. An SAR is the right to receive, upon exercise, an amount payable in cash or shares or a combination of shares and cash, as determined by the Board of Directors or the Compensation Committee, equal to the number of shares subject to the SAR that is being exercised multiplied by the excess of (a) the fair market value of a BioTime common share on the date the SAR is exercised, over (b) the exercise price specified in the SAR Award agreement.

The terms and conditions of a grant of Restricted Stock Units will be determined by the Board of Directors or Compensation Committee. No shares of stock will be issued at the time a Restricted Stock Unit is granted, and BioTime will not be required to set aside a fund for the payment of any such award. A recipient of Restricted Stock Units will have no voting rights with respect to the Restricted Stock Units. Upon the expiration of the restrictions applicable to a Restricted Stock Unit, BioTime will either issue to the recipient, without charge, one common share per Restricted Stock Unit or cash in an amount equal to the fair market value of one common share.

As of December 31, 2012, BioTime had granted to certain employees, consultants, and directors, options to purchase a total of 3,426,301 common shares at exercise prices ranging from $0.5 to $8.58 per share under the 2002 Plan and had granted to certain employees to purchase a total of 255,000 common shares at an exercise price of $3.45 per share under the 2012 Plan. The 2012 Plan has not yet been approved by the shareholders.

On January 1, 2006, BioTime adopted a new accounting pronouncement, which requires the measurement and recognition for all share-based payment awards made to BioTime's employees and directors, including employee stock options. The following table summarizes stock-based compensation expense related to employee and director stock options awards for the years ended December 31, 2012, 2011, and 2010, which was allocated as follows:

	Year Ended December 31,		
All stock-based compensation expense:	2012	2011	2010
Research and Development	$ 815,052	$ 885,581	$ 473,893
General and Administrative	1,028,910	916,832	619,838
All stock-based compensation expense included in expenses	$ 1,843,962	$ 1,802,413	$ 1,093,731

BioTime adopted a new accounting pronouncement using the modified prospective transition method of accounting for options granted on or after January 1, 2006. As of December 31, 2012, total unrecognized compensation costs related to unvested stock options was $3,186,859, which is expected to be recognized as expense over a weighted average period of approximately 5.97 years.

For all applicable periods, the value of each employee or director stock option was estimated on the date of grant using the Black-Scholes Merton model for the purpose of the pro forma financial disclosures in accordance with a new accounting pronouncement.

The weighted-average estimated fair value of stock options granted during the years ended December 31, 2012 and 2011 was $4.13 and $4.89 per share, respectively, using the Black-Scholes Merton model with the following weighted-average assumptions:

	Year Ended December 31,	
	2012	2011
Expected life (in years)	6.35	6.46
Risk-free interest rates	1.06%	1.85%
Volatility	98.88%	106.49%
Dividend yield	0.0%	0.0%

General Option Information

A summary of all option activity under the 1992 Plan, 2002 Plan, and the 2012 Plan for the years ended December 31, 2012, 2011, and 2010, is as follows:

	Options Available for Grant	Number of Options Outstanding	Weighted Average Exercise Price
January 1, 2010	2,087,168	3,477,000	$ 1.13
Granted	(245,000)	245,000	6.75
Exercised [1]		(401,410)	1.56
December 31, 2010	1,842,168	3,320,590	$ 1.13
Granted	(560,443)	560,443	4.89
Exercised	-	(450,660)	0.50
Forfeited/expired	21,468	(21,468)	5.60
December 31, 2011	1,303,193	3,408,905	$ 2.18
Granted under 2002 Plan	(280,000)	280,000	4.75
Granted under 2012 Plan	(255,000)	255,000	3.45
Exercised	-	(98,541)	2.91
Forfeited/expired under 2002 Plan	-	(164,063)	5.60
Added by 2012 Plan [2]	4,000,000	-	-
Reduce options ungranted under 2002 Plan [3]	(1,023,193)	-	-
December 31, 2012	3,745,000	3,681,301	$ 1.96

1) This table excludes 250,000 options which were granted in 2008 outside the 1992 Plan and 2002 Plan, of which 125,000 were exercised in 2009 and the remaining 125,000 were exercised in 2010.
2) During December 2012, the 2012 Equity Incentive Plan was approved by the BioTime Board of Directors making 4,000,000 common shares available for the grant of options. This plan has not yet been approved by the shareholders.
3) During September 2012, the 2002 Plan expired.

Additional information regarding options outstanding as of December 31, 2012 is as follows:

	Options Outstanding			Options Exercisable	
Range of Exercise Prices	Number Outstanding	Weighted Avg. Remaining Contractual Life (years)	Weighted Avg. Exercise Price	Number Exercisable	Weighted Avg. Exercise Price
$0.50	1,970,400	1.77	$ 0.50	1,970,400	$ 0.50
2.30-8.58	1,710,901	4.06	4.43	1,004,007	4.36
$0.50-$8.58	3,681,301	2.84	$ 2.32	2,974,407	$ 1.80

During 2011, BioTime's subsidiary, LifeMap Sciences adopted a stock option plan that has substantially the same operative provisions as the BioTime 2002 Stock Option Plan. The LifeMap Sciences stock option plan authorized the sale of up to 8,000,000 shares of its common stock through the exercise of stock options or under restricted stock purchase agreements. During 2012, the LifeMap Sciences stock option plan was amended to reflect a 1 for 4 reverse stock split and a change in plan. As a result, the total number of shares that may be issued under the plan was adjusted to 1,842,269.

During 2010, BioTime's subsidiaries OncoCyte, OrthoCyte, ReCyte Therapeutics, and BioTime Asia adopted stock option plans that have substantially the same operative provisions as the BioTime 2002 Stock Option Plan. The OncoCyte, OrthoCyte and ReCyte Therapeutics stock option plans each authorize the sale of up to 4,000,000 shares of the applicable subsidiary's common stock through the exercise of stock options or under restricted stock purchase agreements. The BioTime Asia stock option plan authorizes the sale of up to 1,600 ordinary shares through the exercise of stock options or under restricted stock purchase agreements. Cell Cure Neurosciences' option plan authorizes the sale of 14,100 ordinary shares through the exercise of stock options.

	Options Outstanding			Options Exercisable	
Range of Exercise Prices	Number Outstanding	Weighted Avg. Remaining Contractual Life (years)	Weighted Avg. Exercise Price	Number Exercisable	Weighted Avg. Exercise Price
$0.003-$0.10	5,216,226	6.95	$ 0.37	2,790,371	$ 0.34
1.00-1.75	1,042,347	6.01	1.37	212,250	1.01
2.05	1,550,000	7.43	2.05	681,250	2.05
27.00-42.02	7,840	7.80	37.35	7,840	37.35
$0.003-$42.02	7,816,413	6.92	$ 0.87	3,691,711	$ 0.77

No other options were granted under the other subsidiary Stock Option Plans as of December 31, 2012.

11. Acquisition of ES Cell International Pte. Ltd.

On May 3, 2010, BioTime completed the acquisition of all of the issued preferred shares and ordinary shares of ESI, and the secured promissory notes (the "Notes") issued by ESI to a former ESI shareholder (the "Acquisition"). BioTime issued, in the aggregate, 1,383,400 common shares, and warrants to purchase an additional 300,000 common shares at an exercise price of $10 per share, to acquire all of the ESI shares and the Notes in the Acquisition. BioTime did not incur or assume any indebtedness when it acquired ESI.

ESI has produced six clinical-grade human embryonic stem cell lines that were derived following principles of Good Manufacturing Practice (GMP). ESI currently offers these GMP cell lines use in therapeutic product development.

In accordance with Accounting Standards Codification 805, *Business Combinations* ("ASC 805"), the total purchase consideration is allocated to the net tangible and identifiable intangible assets acquired, and liabilities assumed, based on their estimated fair values as of May 3, 2010. BioTime amortizes intangibles over the estimated useful life of 10 years on a straight line basis.

The purchase price for the acquisition is being allocated as follows:

Components of the purchase price:		
BioTime common shares	$	11,011,864
BioTime warrants		1,778,727
Cash		80,000
Total purchase price	$	12,870,591
Preliminary allocation of purchase price:		
Assets acquired and liabilities assumed:		
Cash	$	222,802
Prepaid and other current assets		65,015
Property and equipment		96,677
Equity investment in Cell Cure Neurosciences		2,766,400
Intangible assets, patents		9,937,529
Current liabilities		(217,832)
Net assets acquired	$	12,870,591

The fair value of the shares issued was based on the $7.96 closing price per BioTime common share on the NYSE MKT on May 3, 2010. The fair value of the warrants issued was computed using a Black Scholes Merton option pricing model, which utilized the following assumptions: expected term of four years, which is equal to the contractual life of the warrants; risk-free rate of 2.015%; 0% expected dividend yield; 118.20% expected volatility; a stock price of $7.96; and an exercise price of $10.

12. Acquisition of Cell Cure Neurosciences, Ltd.

On October 18, 2010, BioTime completed the acquisition of 104,027 ordinary shares of Cell Cure Neurosciences by paying $4,100,000 including $3,847,392 in cash and by converting into Cell Cure Neurosciences shares a $250,000 loan that BioTime previously made to Cell Cure Neurosciences. Two other Cell Cure Neurosciences shareholders, Teva and -HBL- Hadasit Bio-Holdings, Ltd ("HBL") concurrently completed their acquisition of Cell Cure Neurosciences shares. Teva acquired 49,975 Cell Cure Neurosciences shares for $2,000,000 in cash, and HBL acquired 25,625 Cell Cure Neurosciences shares for $897,962 in cash and by converting into Cell Cure Neurosciences shares a $100,000 loan previously made to Cell Cure Neurosciences. As a result of the share purchase, at December 31, 2012 BioTime owned, directly and through ESI, approximately 53.6% of the outstanding ordinary shares of Cell Cure Neurosciences, HBL owns approximately 26.3% of the outstanding ordinary shares, and Teva owns approximately 19.9% of the ordinary shares.

Cell Cure Neurosciences is developing stem cell-based therapies for retinal and neurological disorders, including the development of retinal pigment epithelial ("RPE") cells for the treatment of macular degeneration, and treatments for multiple sclerosis.

With more than 50% interest in Cell Cure Neurosciences, BioTime accounts for Cell Cure Neurosciences using the purchase method of accounting, in accordance with Accounting Standards Codification 805, *Business Combinations* ("ASC 805"), the total purchase consideration is allocated to the net tangible and identifiable intangible assets acquired and liabilities assumed based on their estimated fair values as of October 18, 2010. BioTime amortizes intangibles over the estimated useful life of 10 years on a straight line basis.

The purchase price for the acquisition is being allocated as follows:

Components of the purchase price:	
Note receivable	$ 250,000
Interest accrued on note receivable	2,608
Cash	3,847,392
Total purchase price	$ 4,100,000
Allocation of purchase price:	
Assets acquired and liabilities assumed:	
Cash	$ 480,502
Prepaid and other current assets	472,636
Property and equipment	391,694
Intangible assets	5,480,634
ESI's equity investment in Cell Cure Neurosciences	(2,705,745)
Total investment	7,100,000
Noncontrolling interest	(5,894,255)
Current liabilities	(1,225,466)
Net assets acquired	$ 4,100,000

13. Cell Targeting, Inc. Asset Purchase

On January 28, 2011, BioTime acquired substantially all of the assets of Cell Targeting, Inc. ("CTI"), a company that was engaged in research in regenerative medicine. The assets acquired consist primarily of patents, patent applications, and licenses to use certain patents. BioTime issued 261,959 of common shares and paid CTI $250,000 in cash to acquire the assets. The assets will be used by OncoCyte, which is developing cellular therapeutics for the treatment of cancer using vascular progenitor cells engineered to destroy malignant tumors.

The asset purchase is being accounted for as a business combination under the acquisition method of accounting. This means that even though BioTime did not directly assume and will not directly pay CTI's debts or other liabilities, for financial accounting purposes CTI's financial statements as of January 28, 2011, the date of the acquisition, are being consolidated with those of BioTime. In accordance with ASC 805, the total purchase consideration is allocated to the net tangible and identifiable intangible assets acquired and the CTI liabilities outstanding based on the estimated fair value of the assets and the amount of the liabilities as of January 28, 2011. BioTime amortizes intangible assets over their useful lives, which BioTime estimates to be 10 years.

The total purchase price of $2,550,000 is being allocated as indicated as follows:

Components of the purchase price:	
BioTime common shares	$ 2,300,000
Cash	250,000
Total purchase price	$ 2,550,000
Preliminary allocation of purchase price:	
Assets acquired and liabilities assumed:	
Cash	$ 3,150
Other current assets	2,443
Due from sellers	593,353
Intangible assets	2,419,287
Current liabilities	(468,233)
Net assets acquired	$ 2,550,000

The fair value of the shares issued was $8.78, the average closing price per share of BioTime common shares as reported on the NYSE MKT for the twenty (20) trading days immediately preceding the third trading day prior to the closing date, January 28, 2011.

14. Merger with Glycosan BioSystems, Inc.

On March 21, 2011, BioTime completed the acquisition of Glycosan BioSystems, Inc. (“Glycosan”) through a merger of Glycosan into OrthoCyte. Through the merger, OrthoCyte acquired all of Glycosan's assets, including manufacturing equipment, inventory, and technology licenses, and assumed Glycosan's obligations, which at March 18, 2011 totaled approximately $252,000 and primarily consisted of trade payables, accrued salaries, legal fees, and repayment of amounts advanced to Glycosan. BioTime issued 332,903 common shares and 206,613 warrants to purchase BioTime common shares in connection with the merger.

The merger is being accounted for under the acquisition method of accounting. In accordance with ASC 805, the total purchase consideration is allocated to the net tangible and identifiable intangible assets acquired and liabilities assumed based on their estimated fair values as of March 21, 2011. BioTime amortizes intangibles over their useful lives, which BioTime estimates to be 10 years. In accordance with ASC 805, BioTime does not amortize goodwill. The purchase price was allocated using the information currently available, and may be adjusted after obtaining more information regarding, among other things, asset valuations, liabilities assumed, and revisions of preliminary estimates.

The total purchase price for the merger of $3,554,879 is being allocated as indicated:

Components of the purchase price:		
BioTime common shares	$	2,600,000
BioTime warrants		954,879
Total purchase price	$	3,554,879
Allocation of purchase price:		
Assets acquired and liabilities assumed:		
Cash	$	5,908
Other current assets		64,520
Property, plant and equipment, net		81,183
Intangible assets		3,592,039
Current liabilities		(188,771)
Net assets acquired	$	3,554,879

The fair value of the shares issued was $7.81, the average closing price of BioTime common shares as reported on the NYSE MKT for the 10 trading days immediately preceding February 11, 2011, the date of the Merger Agreement. The fair value of the warrants issued was computed using a Black Scholes Merton option pricing model, which utilized the following assumptions: expected term of three years, which is equal to the contractual life of the warrants; risk-free rate of 1.12%; no expected dividend yield; 109.01% expected volatility; a stock price of $7.56; and an exercise price of $10.

15. Merger with XenneX, Inc.

On May 18, 2012, BioTime completed the acquisition of XenneX, Inc. ("XenneX") through a merger of XenneX into LifeMap Sciences. Through the merger, XenneX stockholders received, in the aggregate, 1,429,380 shares of LifeMap Sciences common stock, which represented approximately 13.7% of the LifeMap Sciences common stock outstanding upon the closing of the transaction. XenneX shareholders also received approximately 448,429 BioTime common shares as part of the transaction. Through the merger, LifeMap Sciences acquired all of XenneX's assets, including cash, accounts receivables, prepaid assets, licenses, and assumed XenneX's obligations, which at May 18, 2012 totaled approximately $572,826 and primarily consisted of trade payables, deferred subscription revenues, and distributions due to former XenneX shareholders.

The merger is being accounted for under the acquisition method of accounting. In accordance with ASC 805, the total purchase consideration is allocated to the net tangible and identifiable intangible assets acquired and liabilities assumed based on their estimated fair values as of May 18, 2012. BioTime amortizes intangibles over their useful lives, which BioTime estimates to be 10 years. In accordance with ASC 805, BioTime does not amortize goodwill. The purchase price was allocated using the information currently available, and may be adjusted after obtaining more information regarding, among other things, asset valuations, liabilities assumed, and revisions of preliminary estimates.

The total purchase price of $4,304,099 is being allocated as indicated:

Components of the purchase price:		
BioTime common shares	$	1,802,684
LifeMap Sciences common shares		2,501,415
Total purchase price	$	4,304,099
Preliminary allocation of purchase price:		
Assets acquired and liabilities assumed:		
Cash	$	292,387
Other current assets		311,118
Intangible assets		4,273,420
Current liabilities		(294,572)
Cash distributable to sellers		(278,254)
Net assets acquired	$	4,304,099

The fair value of the BioTime shares issued was $4.02, the closing price as reported on the NYSE MKT on May 18, 2012, the date the merger was finalized. The fair value of the LifeMap Sciences shares issued was $1.75 as determined by negotiation between BioTime, LifeMap Sciences and XenneX and its stockholders and is consistent with an internal valuation analysis completed by BioTime.

16. Share Exchange and Contribution Agreement

On July 24, 2012, LifeMap Sciences entered into a Share Exchange and Contribution Agreement (the "LifeMap Agreement") with Alfred D. Kingsley, the chairman of BioTime's board of directors and a company that he controls, Greenway Partners, L.P. ("Greenway"), pursuant to which Mr. Kingsley and Greenway agreed to contribute to LifeMap Sciences, in the aggregate, BioTime common shares having an aggregate value of not less than $2,000,000 and not more than $3,000,000, determined as provided in the LifeMap Agreement, in exchange for shares of LifeMap Sciences common stock at an initial price of $1.75 per LifeMap Sciences share.

Under the LifeMap Agreement, during July 2012 Mr. Kingsley and Greenway contributed 420,000 BioTime shares to LifeMap Sciences and received in exchange 1,143,864 shares of LifeMap Sciences common stock. During December 2012, Mr. Kingsley and Greenway contributed an additional 172,533BioTime Shares to LifeMap Sciences and received in exchange 427,566 shares of LifeMap Sciences common stock. The number of shares of LifeMap Sciences common stock issued in exchange for the BioTime shares was determined by multiplying the number of BioTime shares contributed by the highest weighted average closing price per share on the NYSE MKT for any ten trading days during the period from July 1, 2012 through July 31, 2012, in the case of the shares exchanged during July, and during the period August 1, 2012 through December 15, 2012 in the case of the shares exchanged during December, and dividing that amount by $1.75, which was the Exchange Price per share of LifeMap Sciences common stock. See Note 8.

As a result of this investment, and a sale of 142,857 additional shares of LifeMap Sciences for cash, our ownership dropped from 86.3% to 73.2% as of December 31, 2012. As of December 31, 2012, the 513,935 BioTime shares held by LifeMap Sciences are presented as treasury stock at a cost of $2,375,397.

BioTime registered the BioTime Shares received by LifeMap Sciences during July 2012, and has agreed to register the additional shares received during December 2012, for sale under the Securities Act.

In accordance with the License and Research Assignment Agreement dated May 14, 2012 between Yeda Research and Development Company, Ltd ("Yeda") and BioTime in connection with the merger of XenneX, Inc. and LifeMap Sciences Yeda was entitled to receive additional shares of LifeMap Sciences common stock as a result of the issuance of additional shares of common stock by LifeMap Sciences during 2012 to permit Yeda to maintain their 3.75% ownership in the issued and outstanding LifeMap Sciences shares on a fully diluted basis. LifeMap Sciences issued Yeda 66,791 shares of LifeMap Sciences common stock with an estimated fair value of $117,000 under that provision of the License and Research Assignment Agreement.

17. Commitments and Contingencies

BioTime had no fixed, non-cancelable contractual obligations as of December 31, 2012, with the exception of office and laboratory facility operating leases. The lease of BioTime's office and laboratory in Alameda, California expires on January 31, 2016. BioTime has an option to extend the lease for one additional term of five years, with the rent to be determined at the time of the extension based on the prevailing market rate for comparable facilities. Base monthly rent under the current Alameda facility lease is $29,856 from December 2012 and will increase by three percent each year. In addition to the base rent, BioTime pays a pro rata share of real property taxes and certain costs associated to the operation and maintenance of the building in which the leased premises are located.

BioTime also currently pays $5,050 per month for the use of approximately 900 square feet of office space in New York City, which is made available by one of BioTime's directors at his cost for use in conducting meetings and other business affairs.

ESI's lease of office space in Singapore expired on October 31, 2012. Base monthly rent under that lease was S$2,241 (approximately US$1,800). The lease was not renewed. ESI's Singapore lease of lab space expires on October 31, 2013. Base monthly rent under the Singapore laboratory lease is S$9,600 (approximately US$7,850). In addition to base rent, ESI pays a pro rata share of real property taxes and certain costs related to the operation and maintenance of the building in which the leased premises are located.

LifeMap Sciences' lease of office space in Tel Aviv, Israel expired on April 30, 2012. Base monthly rent under that lease was ILS 15,000 (approximately US$4,000) per month. The lease was renewed with additional space effective June 1, 2012 through May 31, 2015. Base monthly rent under the renewed lease is ILS 20,720 (approximately US$5,550) per month. The original lease was extended through May 31 as the new space was not ready on May 1. In addition to base rent, LifeMap Sciences pays a pro rata share of real property taxes and certain costs related to the operation and maintenance of the building in which the leased premises are located. LifeMap Sciences also leases several parking spots.

LifeMap Sciences also currently leases office space in Hong Kong. This lease expires on November 30, 2013. Base monthly rent under the lease is HK$6,401 (approximately US $825) per month for the use of approximately 80 square feet of office space. In addition to base rent, LifeMap Sciences pays certain costs related to the operation of the building in which the leased premises are located.

LifeMap Sciences also currently leases office space in Marshfield, Massachusetts. This lease expires on September 30, 2015. Base monthly rent under the lease is $1,082 per month for the use of approximately 750 square feet of office space. The lease was assumed in connection with the merger with XenneX which occurred in May 2012.

Cell Cure Neurosciences' lease of office and laboratory space in Israel expires on June 1, 2014. Base monthly rent for that facility is approximately ILS 33,000 (approximately US$8,800). In addition to base rent, Cell Cure Neurosciences pays a pro rata share of real property taxes and certain costs related to the operation and maintenance of the building in which the leased premises are located. Cell Cure Neurosciences will be liable for ILS 8,580,000 (approximately US$229,700) in improvement costs should they not renew the lease after it expires.

Rent expenses totaled $1,178,840, $1,058,170, and $656,883 for the years ended December 31, 2012, 2011, and 2010, respectively. Remaining minimum annual lease payments under the various operating leases for the year ending after December 31, 2012 are as follows:

Year Ending December 31,	Minimum lease payments
2013	$ 1,021,054
2014	879,638
2015	804,341
2016	32,625
2017	-
Thereafter	-

18. Income Taxes

The primary components of the net deferred tax assets at December 31, 2012 and 2011 were as follows:

	2012	2011
Deferred tax assets:		
Net operating loss carryforwards	$ 36,111,000	$ 32,580,000
Research & development and other credits	1,856,000	1,764,000
Other, net	1,066,000	596,000
Total	36,901,000	34,940,000
Valuation allowance	(36,901,000)	(34,940,000)
Net deferred tax assets	$ -	$ -

Income taxes differed from the amounts computed by applying the U.S. federal income tax of 34% to pretax losses from operations as a result of the following:

	Year Ended December 31,		
	2012	2011	2010
Computed tax benefit at federal statutory rate	(34%)	(34%)	(34%)
Permanent differences	3%	(1%)	8%
Losses for which no benefit has been recognized	28%	41%	32%
State tax benefit, net of effect on federal income taxes	-	(6%)	(6%)
Foreign rate differential	3%	-	-
	0%	0%	0%

As of December 31, 2012, BioTime has net operating loss carryforwards of approximately $78,000,000 for federal and $49,000,000 for state tax purposes, which expire through 2032. In addition, BioTime has tax credit carryforwards for federal and state tax purposes of $904,000 and $952,000, respectively, which expire through 2032. As of December 31, 2012, BioTime's subsidiaries have foreign net operating loss carryforwards of approximately $48,800,000 which carry forward indefinitely.

No tax benefit has been recorded through December 31, 2012 because of the net operating losses incurred and a full valuation allowance has been provided. A valuation allowance is provided when it is more likely than not that some portion of the deferred tax assets will not be realized. BioTime established a 100% valuation allowance for all periods presented due to the uncertainty of realizing future tax benefits from its net operating loss carryforwards and other deferred tax assets.

Internal Revenue Code Section 382 places a limitation ("Section 382 Limitation") on the amount of taxable income that can be offset by net operating loss ("NOL") carryforwards after a change in control (generally greater than 50% change in ownership within a three-year period) of a loss corporation. California has similar rules. Generally, after a control change, a loss corporation cannot deduct NOL carryforwards in excess of the Section 382 Limitation. Due to these "change in ownership" provisions, utilization of the NOL and tax credit carryforwards may be subject to an annual limitation regarding their utilization against taxable income in future periods.

BioTime files an income tax return in the U.S. federal jurisdiction, and may file income tax returns in various U.S. states and foreign jurisdictions. Generally, BioTime is no longer subject to income tax examinations by major taxing authorities for years before 2008.

BioTime may be subject to potential examination by U.S. federal, U.S. states or foreign jurisdiction authorities in the areas of income taxes. These potential examinations may include questioning the timing and amount of deductions, the nexus of income among various tax jurisdictions and compliance with U.S. federal, U.S. state and foreign tax laws. BioTime's management does not expect that the total amount of unrecognized tax benefits will materially change over the next twelve months.

19. Segment Information

BioTime's executive management team represents its chief decision maker. To date, BioTime's management has viewed BioTime's operations as one segment that includes, the research and development of therapeutic products for oncology, orthopedics, retinal and neurological diseases and disorders, blood and vascular system diseases and disorders, blood plasma volume expansion, diagnostic products for the early detection of cancer, and hydrogel products that may be used in surgery, and products for human embryonic stem cell research. As a result, the financial information disclosed materially represents all of the financial information related to BioTime's sole operating segment.

20. Enterprise-wide Disclosures

Geographic Area Information

Revenues, including license fees, royalties, grant income, and other revenues by geographic area are based on the country of domicile of the licensee or grantor.

Geographic Area	Revenues for the Year ending December 31,		
	2012	2011	2010
Domestic	$ 2,529,669	$ 3,059,810	$ 3,311,211
Asia	1,385,658	1,374,349	396,807
Total revenues	$ 3,915,327	$ 4,434,159	$ 3,708,018

Major Sources of Revenues

BioTime has three major customers and three major grants comprising significant amounts of total revenues.

All of BioTime's royalty revenues were generated through sales of *Hextend*® by Hospira in the U.S. and by CJ in the Republic of Korea. BioTime also earned license fees from CJ and Summit.

BioTime was awarded a $4,721,706 grant for a stem cell research project related to its *ACTCellerate*™ technology by CIRM in April 2009. The CIRM grant covers the period of September 1, 2009 through August 31, 2012, and as of December 31, 2012 and 2011, BioTime had received payments from CIRM totaling $392,665 and $1,570,663, respectively. BioTime recognized $1,047,106 and $1,570,663 as revenues as of December 31, 2012 and 2011, respectively. The final quarterly installment of $392,664 was collected in February 2013.

During 2012, BioTime also received $45,645 and recognized as revenues $47,507 of a $335,900 grant awarded by the NIH. The grant started on September 30, 2011 and originally ended on September 29, 2012. However, this grant was extended through September 29, 2013.

During 2012, grant income also included awards from other sources in the amount of $1,109,699 recognized through Cell Cure Neurosciences and $18,145 through Life Map Sciences, Ltd.

During 2012, BioTime received $1,222,516 and recognized $373,798 (net of $379,098 in royalty and commission fees) in net subscription and advertisement revenues through LifeMap Sciences.

The following table shows the relative portions of BioTime's *Hextend*® and *PentaLyte*® royalty and license fee revenues paid by Hospira, CJ, and Summit that were recognized during the years ended December 31, 2012, 2011, and 2010, the subscription and advertisement revenues, and grant income recognized during the same periods with respect to grants provided by the office of the Chief of Scientist of Israel ("OCS"), the NIH (QTDP) and CIRM:

Sources of Revenues	% of Total Revenues for Year ended December 31,		
	2012	2011	2010
Hospira	11.0%	14.2%	22.7%
CJ	2.9%	3.5%	6.8%
Summit	3.7%	3.3%	3.9%
CIRM	26.7%	35.4%	42.5%
QTDP	-	-	19.8%
OCS	26.0%	23.0%	-
Others	29.7%	20.6%	4.3%

21. Selected Quarterly Financial Information (UNAUDITED)

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Year Ended December 31, 2012				
Revenues, net	$ 631,946	$ 949,746	$ 833,817	$ 1,065,547
Operating expenses	6,547,486	7,029,077	6,780,375	8,124,795
Loss from operations	(5,915,540)	(6,079,331)	(5,946,558)	(7,059,248)
Net loss attributable to BioTime, Inc.	(4,973,342)	(5,457,222)	(4,958,014)	(6,037,125)
Basic and diluted net loss per share	(0.10)	(0.11)	(0.10)	(0.12)
Year Ended December 31, 2011				
Revenues, net	$ 824,629	$ 755,553	$ 1,143,054	$ 1,631,526
Operating expenses	4,850,516	5,736,547	5,375,419	7,078,711
Loss from operations	(4,027,887)	(4,980,994)	(4,232,365)	(5,447,185)
Net loss attributable to BioTime, Inc.	(3,362,132)	(4,277,928)	(3,737,626)	(5,137,814)
Basic and diluted net loss per share	(0.07)	(0.09)	(0.08)	(0.10)

22. Pro Forma Financial Information for Fiscal Years Ended December 31, 2012 and 2011 (UNAUDITED)

The following unaudited pro forma information gives effect to the acquisitions of CTI assets, merger with Glycosan, and merger with XenneX as if the transactions took place on January 1, 2011. The *pro forma* information does not necessarily reflect the results of operations that would have occurred had the entities been a single company during the periods presented.

	Year Ended December 31,	
	2012	2011
Revenues	$ 4,206,973	$ 5,111,792
(Loss) available to common shareholders	$ (21,323,187)	$ (16,336,709)
(Loss) per common share – basic	$ (0.43)	$ (0.33)
(Loss) per common share – diluted	$ (0.43)	$ (0.33)

23. Subsequent Events

Asset Contribution Agreement

On January 4, 2013, BioTime and BAC entered into an Asset Contribution Agreement with Geron Corporation ("Geron") pursuant to which BioTime and Geron will concurrently contribute certain assets to BAC in exchange for shares of BAC common stock. Closing of the asset contribution transaction is expected to occur no later than September 30, 2013.

Pursuant to the Asset Contribution Agreement, Geron has agreed to contribute certain assets related to its discontinued stem cell research and development programs, including certain patents and know-how related to human embryonic stem cells; certain biological materials and reagents; certain laboratory equipment; certain contracts; and certain product clinical trials, in exchange for shares of BAC common stock, and BioTime has agreed to contribute 8,902,077 common shares; warrants to subscribe for and purchase 8,000,000 additional common shares; $5,000,000 in cash; 10% of the shares of common stock of OrthoCyte Corporation issued and outstanding on the date of the Asset Contribution Agreement; 6% of the ordinary shares of our subsidiary Cell Cure Neurosciences issued and outstanding on the date of the Asset Contribution Agreement; and a quantity of certain human hES cell lines produced under cGMP, and a non-exclusive, world-wide, royalty-free license to use those hES cell lines and certain patents pertaining to stem cell differentiation technology, in exchange for BAC common stock and warrants to purchase BAC common stock.

A private investor has agreed to contribute $5 million in cash to BAC for 2,136,000 shares of BAC Series B common stock, and warrants to purchase 350,000 additional shares of BAC Series B common stock. That investment will be made in conjunction with the closing under the Asset Contribution Agreement. If for any reason the private investor fails to make the $5 million contribution, BioTime will contribute cash, BioTime common shares, or a combination of cash and BioTime common shares to BAC in an amount equal to the cash not contributed by the private investor.

The same private investor also agreed to invest $5 million in BioTime by purchasing, in two tranches, an aggregate of 1,350,000 BioTime common shares and warrants to purchase approximately 650,000 additional BioTime common shares. The first tranche of $2,000,000 was funded during January 2013, and BioTime issued to the investor 540,000 common shares and 259,999 warrants. The second tranche of $3,000,000 was originally intended to close later this year concurrent with the closing of the Asset Contribution Agreement. However, on March 7, 2013 the investor and BioTime entered into an amendment to accelerate the closing date to April 10, 2013. Upon closing of the second tranche, we will issue to the investor 810,000 common shares, and warrants to purchase an additional 389,998 common shares at an exercise price of $5.00 per share.

BAC will assume all obligations and liabilities in connection with the assets contributed by Geron, to the extent such obligations and liabilities arise after the closing date of the Asset Contribution Agreement, including certain obligations and liabilities to provide follow-up procedures with patients who participated in Geron's clinical trials.

Upon the closing under the Asset Contribution Agreement, BioTime will own 21,773,340 shares of BAC Series B common stock and Geron will own 6,537,779 shares of BAC Series A common stock. Upon the sale of BAC shares to the private investor, the private investor will own 2,136,000 shares of BAC Series B common stock.

Geron has agreed to distribute to its stockholders on a pro rata basis the shares of BAC Series A common stock that Geron receives in the asset contribution transaction following the closing under the Asset Contribution Agreement. Following that distribution by Geron, BAC will distribute to the holders of its Series A common stock on a pro rata basis the 8,000,000 BioTime warrants that it receives under the Asset Contribution Agreement.

Following the distributions of the BAC Series A common stock by Geron to its stockholders, BioTime will own, including the shares of BAC Series B common stock that BioTime presently owns, approximately 71.6% of the outstanding BAC common stock, the Geron stockholders will own approximately 21.4% of the outstanding BAC common stock and the private investor will own approximately 7.0%, of the outstanding BAC common stock.

BioTime will also receive warrants to purchase 3,150,000 shares of BAC Series B common stock and the private investor will receive warrants to purchase 350,000 shares of BAC Series B common stock (the "BAC Warrants"). The BAC Warrants will have an exercise price of $5.00 per share and a term of three years. The exercise price per share and number of shares that may be purchased upon the exercise of the BAC Warrants will be subject to adjustment in the event of any BAC stock split, reverse stock split, stock dividend, reclassification of shares and certain other transactions.

The BAC Series A and Series B common stock will be identical in most respects, however, BAC will be entitled to make certain distributions or pay dividends, other than stock dividends, on its Series A common stock, without making a distribution or paying a dividend on its Series B common stock. The BAC Series B common stock may be converted into BAC Series A common stock, on a share for share basis, at BAC's election, only after Geron distributes to its stockholders the BAC Series A common stock issued under the Asset Contribution Agreement and BAC subsequently distributes to the BAC Series A common stock holders the 8,000,000 BioTime warrants that BAC will receive from BioTime under the Asset Contribution Agreement.

Closing of the asset contribution transaction is subject to certain negotiated conditions, including: the effectiveness of registration statements under the Securities Act to be filed by BioTime and BAC, and the approval by BioTime shareholders of the issuance of BioTime shares and warrants in the transaction, and an amendment of BioTime's Articles of Incorporation to increase its authorized capital stock (the "Shareholder Proposals").

Closing of the cash contribution by the private investor is also subject to certain negotiated closing conditions, including the closing of the asset contribution transaction.

BioTime will be required to pay Geron a termination fee of $1.8 million in certain circumstances if the Asset Contribution Agreement is terminated if (a) the BioTime board of directors withdraws its recommendation to BioTime shareholders to approve the Shareholder Proposals, (b) certain BioTime directors materially breach the Support Agreements under which they and certain of their affiliates have agreed to vote their BioTime shares in favor of the Shareholder Proposals, or (c) BioTime's shareholders do not vote to approve the Shareholder Proposals.

On March 14, 2013, ReCyte and one of its shareholders entered into a Stock Purchase Agreement under which the shareholder agreed to purchase 81,169 additional ReCyte common shares for approximately $250,000, reflecting a purchase price of $3.08 per share. In March 2013, ReCyte received $125,000 for which 40,584 ReCyte common shares were issued. ReCyte expects to receive the remaining $125,000 and to issue the remaining 40,585 common shares by the end of the second quarter.

Lease

On January 8, 2013, BioTime entered into a lease for an office and research facility located at 230 Constitution Drive, Menlo Park, California that BioTime plans to make available for use by BAC. The building on the leased premises contains approximately 24,080 square feet of space. The lease is for a term of three years commencing January 7, 2013. BioTime will pay base rent of $31,786 per month, plus real estate taxes and certain costs of maintaining the leased premises. As additional consideration for the lease, BioTime issued to the landlord BioTime common shares having a market value of $242,726, determined based upon the average closing price of our common shares on the NYSE MKT for a designated period of time prior to the signing of the lease. BioTime agreed to register those shares under the Securities Act and if it fails to file a registration statement for such purpose within 120 days the landlord will have a right to return the shares to BioTime, in which case the base rent will increase to $38,528 per month, retroactive to the commencement date of the lease.

Cell Cure Neurosciences Investment

On January 29, 2013, in accordance with the November 1, 2012 Share Purchase Agreement between BioTime and Cell Cure Neurosciences, BioTime purchased 87,456 Cell Cure Neurosciences ordinary shares in exchange for 906,735 of BioTime common shares. As a result of the share purchase, BioTime ownership directly and through ESI increased to approximately 62.6% of the outstanding ordinary shares of Cell Cure Neurosciences.

The number of common shares that BioTime issued to acquire the Cell Cure Neurosciences shares was based upon an average market price of $3.86 per BioTime common share determined on the basis of the ten actual trading days prior to November 1, 2012. Under the Share Purchase Agreement, BioTime may be required to issue additional common shares to Cell Cure Neurosciences, or Cell Cure Neurosciences may be required to issue additional Cell Cure Neurosciences ordinary shares to BioTime, depending upon whether the market value of BioTime common shares increases or decreases by more than 15%, based upon the average closing price for the ten trading days commencing on May 1, 2013. If the market value of BioTime common shares declines by more than 15% then BioTime will issue an additional number of shares required to make the value of the total number of common shares BioTime issued equal to $3.5 million, less the initial $3.86 market price multiplied by any BioTime common shares sold by Cell Cure Neurosciences prior to that date, and subject to a maximum 33% increase in the number of BioTime shares issued. Conversely, if the value of BioTime shares increases by more than 15% as of such date, Cell Cure Neurosciences will be required to issue to BioTime a number of additional Cell Cure Neurosciences ordinary shares sufficient to bring the value of the Cell Cure shares Neurosciences issued to BioTime under the Share Purchase Agreement to the value of the BioTime common shares we issued, also determined on the basis of a ten day trading period commencing on May 1, 2013, but subject to a 33% maximum increase in the number of Cell Cure Neurosciences shares issued.

In 2013, BioTime raised gross proceeds of $11,306,430 from the sale of 2,537,051 common shares at a weighted average price of $4.46 per share in the open market. The 2,537,051 shares were sold through BioTime's $25 million Controlled Equity Offering facility with Cantor Fitzgerald & Co., as sales agent, and through the sale of BioTime common shares held by its majority owned subsidiaries, LifeMap Sciences and Cell Cure Neurosciences. The proceeds of BioTime common shares sold by LifeMap Sciences and Cell Cure Neurosciences belong to those subsidiaries.

These consolidated financial statements were approved by management and the Board of Directors, and were issued on March 14, 2013. Subsequent events have been evaluated through that date.

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

Not applicable.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

It is management's responsibility to establish and maintain adequate internal control over all financial reporting pursuant to Rule 13a-15 under the Securities Exchange Act of 1934 ("Exchange Act"). Our management, including our principal executive officer, our principal operations officer, and our principal financial officer, have reviewed and evaluated the effectiveness of our disclosure controls and procedures as of a date within ninety (90) days of the filing date of this Annual Report on Form 10-K. Following this review and evaluation, management collectively determined that our disclosure controls and procedures are effective to ensure that information required to be disclosed by us in reports that we file or submit under the Exchange Act (i) is recorded, processed, summarized and reported within the time periods specified in SEC rules and forms; and (ii) is accumulated and communicated to management, including our chief executive officer, our chief operations officer, and our chief financial officer, as appropriate to allow timely decisions regarding required disclosure.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting that occurred during the period covered by this Annual Report on Form 10-K that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting, as defined in Exchange Act Rule 13a-15(f), is a process designed by, or under the supervision of, our principal executive officer, our principal operations officer, and our principal financial officer, and effected by our Board of Directors, management, and other personnel, 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 and includes those policies and procedures that:

- Pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of our assets;
- Provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that our receipts and expenditures are being made only in accordance with authorizations of our management and directors; and
- Provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our 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. 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. All internal control systems, no matter how well designed, have inherent limitations. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation. The scope of management's assessment of the effectiveness of internal control over financial reporting includes our consolidated subsidiaries.

Our management assessed the effectiveness of our internal control over financial reporting as of December 31, 2012, based on criteria established in Internal Control - Integrated Framework issued by COSO. Based on this assessment, management believes that, as of that date, our internal control over financial reporting was effective.

This annual report includes an attestation report of our registered public accounting firm regarding internal control over financial reporting for the year ended December 31, 2012. The attestation is included in the accounting firm's report on our audited consolidated financial statements.

Item 9B. Other Information

Not applicable

PART III

Item 10. Directors , Executive Officers, and Corporate Governance

The name, age, and background of each of our directors are contained under the caption “Election of Directors” in our Proxy Statement for our 2013 Annual Meeting of Shareholders, and are incorporated herein by reference. Information about our executive officers, committees of the Board of Directors, and compensation of directors is reported under the caption “Corporate Governance” in our Proxy Statement for our 2013 Annual Meeting of Shareholders, and is incorporated herein by reference.

We have a written Code of Ethics that applies to our principal executive officer, our principal financial officer and accounting officer, our other executive officers, and our directors. The purpose of the Code of Ethics is to promote (i) honest and ethical conduct, including the ethical handling of actual or apparent conflicts of interest between personal and professional relationships; (ii) full, fair, accurate, timely, and understandable disclosure in reports and documents that we file with or submit to the Securities and Exchange Commission and in our other public communications; (iii) compliance with applicable governmental rules and regulations; (iv) prompt internal reporting of violations of the Code to an appropriate person or persons identified in the Code; and (v) accountability for adherence to the Code. A copy of our Code of Ethics has been posted on our internet website and can be found at *www.biotimeinc.com*. If we amend or waive a provision of our Code of Ethics that applies to our chief executive officer or chief financial officer, we will post the amended Code of Ethics or information about the waiver on our internet website.

Information about our compliance with Section 16(a) of the Securities Exchange Act of 1934 is reported under the caption “Compliance with Section 16(a) of the Securities Exchange Act of 1934” in our Proxy Statement for our Shareholders, and is incorporated herein by reference.

Item 11. Executive Compensation

Information on compensation of our executive officers is reported under the caption “Executive Compensation” in our Proxy Statement for our 2013 Annual Meeting of Shareholders, and is incorporated herein by reference.

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

Information on the number of common shares of BioTime beneficially owned by each shareholder known by us to be the beneficial owner of 5% or more of our common shares, and by each director and named executive officer, and by all directors and named executive officers as a group, is contained under the caption “Principal Shareholders” in our Proxy Statement for our 2013 Annual Meeting of Shareholders, and is incorporated herein by reference.

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

Information about transactions with related persons; review, and approval or ratification of transactions with related persons; and director independence is reported under the caption “Election of Directors” in our Proxy Statement for our 2013 Annual Meeting of Shareholders, and is incorporated herein by reference.

Item 14. Principal Accounting Fees and Services

Information about our Audit Committee’s pre-approval policy for audit services, and information on our principal accounting fees and services is reported under the caption “Ratification of the Selection of Our Independent Auditors” in our Proxy Statement for our 2013 Annual Meeting of Shareholders, and is incorporated herein by reference.

PART IV

Item 15. Exhibits, Financial Statement Schedules

(a-1) Financial Statements.

The following financial statements of BioTime, Inc. are filed in the Form 10-K:

Consolidated balance sheets
Consolidated statements of operations
Consolidated statements of shareholders' deficit
Consolidated statements of cash flows

Notes to Financial Statements

(a-2) Financial Statement Schedules

All schedules are omitted because the required information is inapplicable or the information is presented in the financial statements or the notes thereto.

(a-3) Exhibits.

Exhibit Numbers	Description
2.1	Equity and Note Purchase Agreement entered into as of April 28, 2010 by and between ES Cell Australia Limited, Pharmbio Growth Fund Pte. Ltd., and Biomedical Sciences Investment Fund Pte. Ltd. 19
2.2	Transfer Agreement dated May 3, 2010 between BioTime, Inc. and certain shareholders of ES Cell International Pte. Ltd. 19
2.3	Agreement and Plan of Merger, dated February 11, 2010, between Glycosan BioSystems, Inc., OrthoCyte Corporation, and BioTime, Inc. 22
2.4	Agreement and Plan of Merger, dated April 19, 2012, by and among XenneX, Inc., LifeMap Sciences, Inc., BioTime, Inc. and the stockholders of XenneX, Inc. named therein. (Portions of this exhibit have been omitted pursuant to a request for confidential treatment). 26
2.5	Asset Contribution Agreement, dated January 4, 2013, by and among BioTime, Inc., BioTime Acquisition Corporation, and Geron Corporation. 29
3.1	Articles of Incorporation with all amendments. 18
3.2	By-Laws, As Amended. 2
4.1	Specimen of Common Share Certificate. 1
4.2	Warrant Agreement between BioTime, Inc., Broadwood Partners, L.P., and George Karfunkel. 16
4.3	Form of Warrant. 16
4.4	Warrant Agreement between BioTime, Inc. and Biomedical Sciences Investment Fund Pte. Ltd. 19
4.5	Share Exchange and Contribution Agreement, dated July 24, 2012, among LifeMap Sciences, Inc., Alfred D. Kingsley, and Greenway Partners, L.P. 27

4.6	Warrant Agreement between BioTime, Inc. and Romulus Films, Ltd. *
4.7	Form of Warrant (included in Exhibit 4.6). *
10.1	Intellectual Property Agreement between BioTime, Inc. and Hal Sternberg. 1
10.2	Intellectual Property Agreement between BioTime, Inc. and Judith Segall. 1
10.3	2002 Stock Option Plan, as amended. 18
10.4	Exclusive License Agreement between Abbott Laboratories and BioTime, Inc. (Portions of this exhibit have been omitted pursuant to a request for confidential treatment). 3
10.5	Modification of Exclusive License Agreement between Abbott Laboratories and BioTime, Inc. (Portions of this exhibit have been omitted pursuant to a request for confidential treatment). 4
10.6	Exclusive License Agreement between BioTime, Inc. and CJ Corp. 5
10.7	*Hextend*® and *PentaLyte*® Collaboration Agreement between BioTime, Inc. and Summit Pharmaceuticals International Corporation.6
10.8	Addendum to *Hextend*® and *PentaLyte*® Collaboration Agreement Between BioTime Inc. and Summit Pharmaceuticals International Corporation. 7
10.9	Amendment to Exclusive License Agreement Between BioTime, Inc. and Hospira, Inc. 8
10.10	*Hextend*® and *PentaLyte*® China License Agreement Between BioTime, Inc. and Summit Pharmaceuticals International Corporation. 9
10.11	Employment Agreement, dated October 10, 2007, between BioTime, Inc. and Michael D. West. 11
10.12	Commercial License and Option Agreement between BioTime and Wisconsin Alumni Research Foundation. 10
10.13	License, Product Production, and Distribution Agreement, dated June 19, 2008, among Lifeline Cell Technology, LLC, BioTime, Inc., and Embryome Sciences, Inc. 12
10.14	License Agreement, dated July 10, 2008, between Embryome Sciences, Inc. and Advanced Cell Technology, Inc. 12
10.15	License Agreement, dated August 15, 2008 between Embryome Sciences, Inc. and Advanced Cell Technology, Inc. 13
10.16	Sublicense Agreement, dated August 15, 2008 between Embryome Sciences, Inc. and Advanced Cell Technology, Inc. 13
10.17	Stem Cell Agreement, dated February 23, 2009, between Embryome Sciences, Inc. and Reproductive Genetics Institute. 14
10.18	First Amendment of Commercial License and Option Agreement, dated March 11, 2009, between BioTime and Wisconsin Alumni Research Foundation. 14
10.19	Employment Agreement, dated October 10, 2007, between BioTime, Inc. and Robert Peabody. 14
10.20	Fifth Amendment of Revolving Line of Credit Agreement, dated April 15, 2009. 15
10.21	Form of Amendment of Revolving Credit Note. 15

10.22	Fifth Amendment of Security Agreement, dated April 15, 2009. 15
10.23	Stock and Warrant Purchase Agreement between BioTime, Inc. and George Karfunkel. 16
10.24	Stock and Warrant Purchase Agreement between BioTime, Inc. and Broadwood Partners, L.P. 16
10.25	Registration Rights Agreement between BioTime, Inc., Broadwood Partners, L.P. and George Karfunkel.16
10.26	Co-Exclusive OEM Supply Agreement, date July 7, 2009, between Embryome Sciences, Inc. and Millipore Corporation (Portions of this exhibit have been omitted pursuant to a request for confidential treatment). 17
10.27	Stock Purchase Agreement between OncoCyte Corporation and George Karfunkel. 18
10.28	Registration Rights Agreement between OncoCyte Corporation and George Karfunkel. 18
10.29	Employment Agreement, dated August 3, 2009, between BioTime, Inc. and Walter Funk. 19
10.30	Sublease Agreement for 20 Biopolis #05-05/06 Centros, Singapore between Bioprocessing Technology Institute, Biomedical Sciences Institutes and ES Cell International Pte. Ltd. 20
10.31	Share Purchase Agreement, dated October 7, 2010, by and among Cell Cure Neurosciences, Limited, Teva Pharmaceutical Industries, Ltd, HBL-Hadasit Bio-Holdings, Ltd., and BioTime, Inc. 21
10.32	Amended and Restated Shareholders Agreement, dated October 7, 2010, by and among ES Cell International Pte. Ltd, BioTime, Inc., Teva Pharmaceutical Industries, Limited, HBL-Hadasit Bio-Holdings, Ltd., and Cell Cure Neurosciences Ltd. 22
10.33	Research and Exclusive License Option Agreement, dated October 7, 2010, between Teva Pharmaceutical Industries, Ltd. and Cell Cure Neurosciences Ltd. (Portions of this exhibit have been omitted pursuant to a request for confidential treatment).22
10.34	Amended and Restated Research and License Agreement, dated October 7, 2010, between Hadasit Medical Research Services and Development Ltd. and Cell Cure Neurosciences Ltd. 22
10.35	Additional Research Agreement, dated October 7, 2010, between Hadasit Medical Research Services and Development Ltd. and Cell Cure Neurosciences Ltd. 22
10.36	Exclusive License Agreement, dated November 20, 2007, between Cell Targeting, Inc. and Burnham Institute for Medical Research. 22
10.37	Stock Purchase Agreement, dated December 29, 2010, between Embryome Sciences, Inc. and Life Extension Foundation. 22
10.38	Stock Purchase Agreement, dated December 30, 2010, between Embryome Sciences, Inc. and Geothermal Coring, S.A. 22
10.39	Co-Exclusive Supply Agreement, dated December 8, 2010, between BioTime Asia Limited and Shanghai Genext Medical Technology Co. Ltd. 22
10.40	OncoCyte Corporation 2010 Stock Option Plan; Form of OncoCyte Corporation Stock Option Agreement. 22
10.41	OrthoCyte Corporation 2010 Stock Option Plan; Form of OrthoCyte Corporation Stock Option Agreement. 22

10.42	BioTime Asia, Limited 2010 Stock Option Plan; Form of BioTime Asia Limited Stock Option Agreement. 22
10.44	Lease, dated October 28, 2010, between SKS Harbor Bay Associates, LLC and BioTime, Inc. 22
10.45	Memorandum of Tenancy, Renewal of Tenancy and letters of offer and acceptance of renewal of tenancy between ES Cell International Pte. Ltd. and Jurong Town Corporation. 22
10.46	Genome Office Tenancy Renewal, Renewal of Tenancy and letters of offer and acceptance of renewal of tenancy between ES Cell International Pte. Ltd. and Jurong Town Corporation. 22
10.47	Employment Agreement, dated June 28, 2011, between Biotime, Inc., OrthoCyte Corporation, and William P. Tew. 23
10.48	License Agreement between BioTime, Inc. and Cornell University (Portions of this exhibit have been omitted pursuant to a request for confidential treatment). 24
10.49	Employment Agreement, dated October 3, 2011, between BioTime, Inc. and Peter S. Garcia. 24
10.50	License Option Agreement, dated December 15, 2011 between BioTime, Inc. and USCN Life Sciences, Inc. (Portions of this exhibit have been omitted pursuant to a request for confidential treatment). 25
10.51	LifeMap, Inc. 2011 Stock Option Plan; Form of LifeMap, Inc. Stock Option Agreement. 25
10.52	Exclusive License Agreement, dated February 15, 2006, between Glycosan BioSystems, Inc. and the University of Utah Research Foundation, as amended. 28
10.53	Amendment to Share Exchange and Contribution Agreement, dated September 28, 2012, by and among LifeMap Sciences, Inc., Alfred D. Kingsley, and Greenway Partners, L.P. 28
10.54	Share Purchase Agreement, dated November 1, 2012, between Cell Cure Neurosciences, Ltd. and BioTime, Inc. 28
10.55	Amendment to Share Exchange and Contribution Agreement, dated November 30, 2012, by and among LifeMap Sciences, Inc., Alfred D. Kingsley, and Greenway Partners, L.P. *
10.56	Indemnification Agreement, dated January 4, 2013, by and among BioTime, Inc., Broadwood Partners, L.P, and Neal Bradsher. 29
10.57	Indemnification Agreement, dated January 4, 2013, by and among BioTime, Inc., Alfred D. Kingsley, Greenbelt Corp. and Greenway Partners, L.P. 29
10.58	Stock and Warrant Purchase Agreement, dated January 4, 2013, between BioTime, Inc. and Romulus Films, Ltd.*
10.59	Stock and Warrant Purchase Agreement, dated January 4, 2013, between BioTime Acquisition Corporation and Romulus Films, Ltd.*
10.60	Business Park Lease, dated January 7, 2013, between David D. Bohannon Organization and BioTime, Inc.*
10.61	Stock Purchase Agreement, dated January 7, 2013, between David D. Bohannon Organization and BioTime, Inc.*
10.62	Amendment of Stock and Warrant Purchase Agreement, dated March 7, 2013, between BioTime, Inc. and Romulus Films, Ltd.*
21.1	List of Subsidiaries.*

23.1	Consent of Rothstein, Kass & Company, P.C.*
31	Rule 13a-14(a)/15d-14(a) Certification. *
32	Section 1350 Certification.*
101	Interactive Data File. *
101.INS	XBRL Instance Document. *
101.SCH	XBRL Taxonomy Extension Schema. *
101.CAL	XBRL Taxonomy Extension Calculation Linkbase. *
101.DEF	XBRL Taxonomy Extension Definition Linkbase. *
101.LAB	XBRL Taxonomy Extension Label Linkbase. *
101.PRE	XBRL Taxonomy Extension Presentation Linkbase. *

1 Incorporated by reference to Registration Statement on Form S-1, File Number 33-44549 filed with the Securities and Exchange Commission on December 18, 1991, and Amendment No. 1 and Amendment No. 2 thereto filed with the Securities and Exchange Commission on February 6, 1992 and March 7, 1992, respectively

2 Incorporated by reference to Registration Statement on Form S-1, File Number 33-48717 and Post-Effective Amendment No. 1 thereto filed with the Securities and Exchange Commission on June 22, 1992, and August 27, 1992, respectively.

3 Incorporated by reference to BioTime's Form 8-K, filed April 24, 1997.

4 Incorporated by reference to BioTime's Form 10-Q for the quarter ended June 30, 1999.

5 Incorporated by reference to BioTime's Form 10-K/A-1 for the year ended December 31, 2002.

6 Incorporated by reference to BioTime's Form 10-K/A-1 for the year ended December 31, 2002.

7 Incorporated by reference to BioTime's Form 8-K, filed December 20, 2005.

8 Incorporated by reference to BioTime's Form 8-K, filed January 13, 2006.

9 Incorporated by reference to BioTime's Form 8-K, filed March 30, 2006.

10 Incorporated by reference to BioTime's Form 8-K, filed January 9, 2008.

11 Incorporated by reference to BioTime's Form 10-KSB for the year ended December 31, 2007.

12 Incorporated by reference to BioTime's Form 10-Q for the quarter ended June 30, 2008.

13 Incorporated by reference to BioTime's Form 10-Q for the quarter ended September 30, 2008.

14 Incorporated by reference to BioTime's Form 10-K for the year ended December 31, 2008.

15 Incorporated by reference to BioTime's Form 8-K filed April 17, 2009.

16 Incorporated by reference to BioTime's Form 10-Q for the quarter ended March 31, 2009.

17 Incorporated by reference to BioTime's Form 10-Q for the quarter ended June 30, 2009.

18 Incorporated by reference to BioTime's Form 10-Q for the quarter ended September 30, 2009.

19 Incorporated by reference to BioTime's Form 10-Q for the quarter ended March 31, 2010.

20 Incorporated by reference to BioTime's Form 10-Q for the quarter ended June 30, 2010.

21 Incorporated by reference to BioTime's Form 8-K filed October 19, 2010.

22 Incorporated by reference to BioTime's Form 8-K 10-K for the year ended December 31, 2010.

23 Incorporated by reference to BioTime's Form 10-Q for the quarter ended June 30, 2011.

24 Incorporated by reference to BioTime's Form 10-Q for the quarter ended September 30, 2011.

25 Incorporated by reference to BioTime's Form 10-K for the year ended December 31, 2011.

26 Incorporated by reference to BioTime's Form 10-Q for the quarter ended March 31, 2012.

27 Incorporated by reference to Registration Statement on Form S-3, File Number 333-182964 filed with the Securities and Exchange Commission on July 31, 2012

28 Incorporated by reference to BioTime's Form 10-Q for the quarter ended September 30, 2012

29 Incorporated by reference to BioTime's Form 8-K filed with the Securities and Exchange Commission on January 8, 2013

* Filed herewith

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 on Form 10-K to be signed on its behalf by the undersigned, thereunto duly authorized on the 18th day of March, 2013.

BIOTIME, INC.

By: /s/Michael D. West
Michael D. West, Ph.D.
Chief Executive Officer

Signature	Title	Date
/s/Michael D. West MICHAEL D. WEST, PH.D.	Chief Executive Officer and Director (Principal Executive Officer)	March 18, 2013
/s/Peter S. Garcia PETER S. GARCIA	Chief Financial Officer (Principal Financial and Accounting Officer)	March 18, 2013
/s/ Neal C. Bradsher NEAL C. BRADSHER	Director	March 18, 2013
 ARNOLD I. BURNS	Director	March __, 2013
 STEPHEN C. FARRELL	Director	March __, 2013
/s/ Alfred D. Kingsley ALFRED D. KINGSLEY	Director	March 18, 2013
/s/ Pedro Lichtinger PEDRO LICHTINGER	Director	March 18, 2013
/s/Judith Segall JUDITH SEGALL	Director	March 18, 2013
/s/Andrew von Eschenbach ANDREW VON ESCHENBACH	Director	March 18, 2013

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2.4	Agreement and Plan of Merger, dated April 19, 2012, by and among XenneX, Inc., LifeMap Sciences, Inc., BioTime, Inc. and the stockholders of XenneX, Inc. named therein. (Portions of this exhibit have been omitted pursuant to a request for confidential treatment). 26
2.5	Asset Contribution Agreement, dated January 4, 2013, by and among BioTime, Inc., BioTime Acquisition Corporation, and Geron Corporation 29
3.1	Articles of Incorporation with all amendments. 18
3.2	By-Laws, As Amended. 2
4.1	Specimen of Common Share Certificate. 1
4.2	Warrant Agreement between BioTime, Inc., Broadwood Partners, L.P., and George Karfunkel. 16
4.3	Form of Warrant. 16
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4.5	Share Exchange and Contribution Agreement, dated July 24, 2012, among LifeMap Sciences, Inc., Alfred D. Kingsley, and Greenway Partners, L.P. 27
4.6	Warrant Agreement between BioTime, Inc. and Romulus Films, Ltd. *
4.7	Form of Warrant (included in Exhibit 4.6). *
10.1	Intellectual Property Agreement between BioTime, Inc. and Hal Sternberg. 1
10.2	Intellectual Property Agreement between BioTime, Inc. and Judith Segall. 1
10.3	2002 Stock Option Plan, as amended. 18
10.4	Exclusive License Agreement between Abbott Laboratories and BioTime, Inc. (Portions of this exhibit have been omitted pursuant to a request for confidential treatment). 3
10.5	Modification of Exclusive License Agreement between Abbott Laboratories and BioTime, Inc. (Portions of this exhibit have been omitted pursuant to a request for confidential treatment). 4
10.6	Exclusive License Agreement between BioTime, Inc. and CJ Corp. 5
10.7	*Hextend*® and *PentaLyte*® Collaboration Agreement between BioTime, Inc. and Summit Pharmaceuticals International Corporation.6
10.8	Addendum to *Hextend*® and *PentaLyte*® Collaboration Agreement Between BioTime Inc. and Summit Pharmaceuticals International Corporation. 7

10.9	Amendment to Exclusive License Agreement Between BioTime, Inc. and Hospira, Inc. 8
10.10	*Hextend*® and *PentaLyte*® China License Agreement Between BioTime, Inc. and Summit Pharmaceuticals International Corporation. 9
10.11	Employment Agreement, dated October 10, 2007, between BioTime, Inc. and Michael D. West. 11
10.12	Commercial License and Option Agreement between BioTime and Wisconsin Alumni Research Foundation. 10
10.13	License, Product Production, and Distribution Agreement, dated June 19, 2008, among Lifeline Cell Technology, LLC, BioTime, Inc., and Embryome Sciences, Inc. 12
10.14	License Agreement, dated July 10, 2008, between Embryome Sciences, Inc. and Advanced Cell Technology, Inc. 12
10.15	License Agreement, dated August 15, 2008 between Embryome Sciences, Inc. and Advanced Cell Technology, Inc. 13
10.16	Sublicense Agreement, dated August 15, 2008 between Embryome Sciences, Inc. and Advanced Cell Technology, Inc. 13
10.17	Stem Cell Agreement, dated February 23, 2009, between Embryome Sciences, Inc. and Reproductive Genetics Institute. 14
10.18	First Amendment of Commercial License and Option Agreement, dated March 11, 2009, between BioTime and Wisconsin Alumni Research Foundation. 14
10.19	Employment Agreement, dated October 10, 2007, between BioTime, Inc. and Robert Peabody. 14
10.20	Fifth Amendment of Revolving Line of Credit Agreement, dated April 15, 2009. 15
10.21	Form of Amendment of Revolving Credit Note. 15
10.22	Fifth Amendment of Security Agreement, dated April 15, 2009. 15
10.23	Stock and Warrant Purchase Agreement between BioTime, Inc. and George Karfunkel. 16
10.24	Stock and Warrant Purchase Agreement between BioTime, Inc. and Broadwood Partners, L.P. 16
10.25	Registration Rights Agreement between BioTime, Inc., Broadwood Partners, L.P. and George Karfunkel.16
10.26	Co-Exclusive OEM Supply Agreement, date July 7, 2009, between Embryome Sciences, Inc. and Millipore Corporation (Portions of this exhibit have been omitted pursuant to a request for confidential treatment). 17
10.27	Stock Purchase Agreement between OncoCyte Corporation and George Karfunkel. 18
10.28	Registration Rights Agreement between OncoCyte Corporation and George Karfunkel. 18
10.29	Employment Agreement, dated August 3, 2009, between BioTime, Inc. and Walter Funk. 19
10.30	Sublease Agreement for 20 Biopolis #05-05/06 Centros, Singapore between Bioprocessing Technology Institute, Biomedical Sciences Institutes and ES Cell International Pte. Ltd. 20
10.31	Share Purchase Agreement, dated October 7, 2010, by and among Cell Cure Neurosciences, Limited, Teva Pharmaceutical Industries, Ltd, HBL-Hadasit Bio-Holdings, Ltd., and BioTime, Inc. 21

10.32	Amended and Restated Shareholders Agreement, dated October 7, 2010, by and among ES Cell International Pte. Ltd, BioTime, Inc., Teva Pharmaceutical Industries, Limited, HBL-Hadasit Bio-Holdings, Ltd., and Cell Cure Neurosciences Ltd. 22
10.33	Research and Exclusive License Option Agreement, dated October 7, 2010, between Teva Pharmaceutical Industries, Ltd. and Cell Cure Neurosciences Ltd. (Portions of this exhibit have been omitted pursuant to a request for confidential treatment).22
10.34	Amended and Restated Research and License Agreement, dated October 7, 2010, between Hadasit Medical Research Services and Development Ltd. and Cell Cure Neurosciences Ltd. 22
10.35	Additional Research Agreement, dated October 7, 2010, between Hadasit Medical Research Services and Development Ltd. and Cell Cure Neurosciences Ltd. 22
10.36	Exclusive License Agreement, dated November 20, 2007, between Cell Targeting, Inc. and Burnham Institute for Medical Research. 22
10.37	Stock Purchase Agreement, dated December 29, 2010, between Embryome Sciences, Inc. and Life Extension Foundation. 22
10.38	Stock Purchase Agreement, dated December 30, 2010, between Embryome Sciences, Inc. and Geothermal Coring, S.A. 22
10.39	Co-Exclusive Supply Agreement, dated December 8, 2010, between BioTime Asia Limited and Shanghai Genext Medical Technology Co. Ltd. 22
10.40	OncoCyte Corporation 2010 Stock Option Plan; Form of OncoCyte Corporation Stock Option Agreement. 22
10.41	OrthoCyte Corporation 2010 Stock Option Plan; Form of OrthoCyte Corporation Stock Option Agreement. 22
10.42	BioTime Asia, Limited 2010 Stock Option Plan; Form of BioTime Asia Limited Stock Option Agreement. 22
10.43	ReCyte Therapeutics, Inc. 2010 Stock Option Plan; Form of ReCyte Therapeutics, Inc. Stock Option Agreement. 22
10.44	Lease, dated October 28, 2010, between SKS Harbor Bay Associates, LLC and BioTime, Inc. 22
10.45	Memorandum of Tenancy, Renewal of Tenancy and letters of offer and acceptance of renewal of tenancy between ES Cell International Pte. Ltd. and Jurong Town Corporation. 22
10.46	Genome Office Tenancy Renewal, Renewal of Tenancy and letters of offer and acceptance of renewal of tenancy between ES Cell International Pte. Ltd. and Jurong Town Corporation. 22
10.47	Employment Agreement, dated June 28, 2011, between Biotime, Inc., OrthoCyte Corporation, and William P. Tew. 23
10.48	License Agreement between BioTime, Inc. and Cornell University (Portions of this exhibit have been omitted pursuant to a request for confidential treatment). 24
10.49	Employment Agreement, dated October 3, 2011, between BioTime, Inc. and Peter S. Garcia. 24
10.50	License Option Agreement, dated December 15, 2011 between BioTime, Inc. and USCN Life Sciences, Inc. (Portions of this exhibit have been omitted pursuant to a request for confidential treatment). 25

10.51	LifeMap, Inc. 2011 Stock Option Plan; Form of LifeMap, Inc. Stock Option Agreement. 25
10.52	Exclusive License Agreement, dated February 15, 2006, between Glycosan BioSystems, Inc. and the University of Utah Research Foundation, as amended. 28
10.53	Amendment to Share Exchange and Contribution Agreement, dated September 28, 2012, by and among LifeMap Sciences, Inc., Alfred D. Kingsley, and Greenway Partners, L.P. 28
10.54	Share Purchase Agreement, dated November 1, 2012, between Cell Cure Neurosciences, Ltd. and BioTime, Inc. 28
10.55	Amendment to Share Exchange and Contribution Agreement, dated November 30, 2012, by and among LifeMap Sciences, Inc., Alfred D. Kingsley, and Greenway Partners, L.P. *
10.56	Indemnification Agreement, dated January 4, 2013, by and among BioTime, Inc., Broadwood Partners, L.P, and Neal Bradsher. 29
10.57	Indemnification Agreement, dated January 4, 2013, by and among BioTime, Inc., Alfred D. Kingsley, Greenbelt Corp. and Greenway Partners, L.P. 29
10.58	Stock and Warrant Purchase Agreement, dated January 4, 2013, between BioTime, Inc. and Romulus Films, Ltd.*
10.59	Stock and Warrant Purchase Agreement, dated January 4, 2013, between BioTime Acquisition Corporation and Romulus Films, Ltd.*
10.60	Business Park Lease, dated January 7, 2013, between David D. Bohannon Organization and BioTime, Inc.*
10.61	Stock Purchase Agreement, dated January 7, 2013, between David D. Bohannon Organization and BioTime, Inc.*
10.62	Amendment of Stock and Warrant Purchase Agreement, dated March 7, 2013, between BioTime, Inc. and Romulus Films, Ltd.*
21.1	List of Subsidiaries.*
23.1	Consent of Rothstein, Kass & Company, P.C.*
31	Rule 13a-14(a)/15d-14(a) Certification. *
32	Section 1350 Certification.*
101	Interactive Data File. *
101.INS	XBRL Instance Document. *
101.SCH	XBRL Taxonomy Extension Schema. *
101.CAL	XBRL Taxonomy Extension Calculation Linkbase. *
101.DEF	XBRL Taxonomy Extension Definition Linkbase. *
101.LAB	XBRL Taxonomy Extension Label Linkbase. *
101.PRE	XBRL Taxonomy Extension Presentation Linkbase. *

1 Incorporated by reference to Registration Statement on Form S-1, File Number 33-44549 filed with the Securities and Exchange Commission on December 18, 1991, and Amendment No. 1 and Amendment No. 2 thereto filed with the Securities and Exchange Commission on February 6, 1992 and March 7, 1992, respectively

2 Incorporated by reference to Registration Statement on Form S-1, File Number 33-48717 and Post-Effective Amendment No. 1 thereto filed with the Securities and Exchange Commission on June 22, 1992, and August 27, 1992, respectively.

3 Incorporated by reference to BioTime's Form 8-K, filed April 24, 1997.

4 Incorporated by reference to BioTime's Form 10-Q for the quarter ended June 30, 1999.

5 Incorporated by reference to BioTime's Form 10-K/A-1 for the year ended December 31, 2002.

6 Incorporated by reference to BioTime's Form 10-K/A-1 for the year ended December 31, 2002.

7 Incorporated by reference to BioTime's Form 8-K, filed December 20, 2005.

8 Incorporated by reference to BioTime's Form 8-K, filed January 13, 2006.

9 Incorporated by reference to BioTime's Form 8-K, filed March 30, 2006.

10 Incorporated by reference to BioTime's Form 8-K, filed January 9, 2008.

11 Incorporated by reference to BioTime's Form 10-KSB for the year ended December 31, 2007.

12 Incorporated by reference to BioTime's Form 10-Q for the quarter ended June 30, 2008.

13 Incorporated by reference to BioTime's Form 10-Q for the quarter ended September 30, 2008.

14 Incorporated by reference to BioTime's Form 10-K for the year ended December 31, 2008.

15 Incorporated by reference to BioTime's Form 8-K filed April 17, 2009.

16 Incorporated by reference to BioTime's Form 10-Q for the quarter ended March 31, 2009.

17 Incorporated by reference to BioTime's Form 10-Q for the quarter ended June 30, 2009.

18 Incorporated by reference to BioTime's Form 10-Q for the quarter ended September 30, 2009.

19 Incorporated by reference to BioTime's Form 10-Q for the quarter ended March 31, 2010.

20 Incorporated by reference to BioTime's Form 10-Q for the quarter ended June 30, 2010.

21 Incorporated by reference to BioTime's Form 8-K filed October 19, 2010.

22 Incorporated by reference to BioTime's Form 8-K 10-K for the year ended December 31, 2010.

23 Incorporated by reference to BioTime's Form 10-Q for the quarter ended June 30, 2011.

24 Incorporated by reference to BioTime's Form 10-Q for the quarter ended September 30, 2011.

25 Incorporated by reference to BioTime's Form 10-K for the year ended December 31, 2011.

26 Incorporated by reference to BioTime's Form 10-Q for the quarter ended March 31, 2012.

27 Incorporated by reference to Registration Statement on Form S-3, File Number 333-182964 filed with the Securities and Exchange Commission on July 31, 2012

28 Incorporated by reference to BioTime's Form 10-Q for the quarter ended September 30, 2012

29 Incorporated by reference to BioTime's Form 8-K filed with the Securities and Exchange Commission on January 8, 2013

* Filed herewith

Exhibit 4.6

_____

Warrant Agreement

Dated as of January 14, 2013

_____

WARRANT AGREEMENT, (this "Agreement") dated as of January 14, 2013, by BioTime, Inc., a California corporation (the "Company"), for the benefit of each registered holder of a Warrant described herein (a "Holder").

Section 1. Issuance of Warrants.

1.1 Number of Warrants; Expiration Date. The Company is issuing common share purchase warrants, as hereinafter described (the "Warrants"), to purchase up to an aggregate of 650,000 of its common shares, no par value (the "Common Stock"), to the undersigned original Holders pursuant to that certain Stock and Warrant Purchase Agreement dated as of January 4, 2013. The Warrants shall be represented by a certificate in substantially the form of Exhibit A hereto. Subject to the terms of this Agreement, a Holder of any of such Warrant (including any Warrants into which a Warrant may be divided) shall have the right, which may be exercised, in whole or in part, at any time on or after the date hereof and prior to 5:00 p.m., New York Time on January 13, 2016 (the "Expiration Date"), to purchase from the Company, at the Warrant Price (as defined herein) then in effect, the number of fully paid and nonassessable common shares, no par value, of the Company ("Warrant Shares") determined as provided in this Agreement and specified in such Warrant.

1.2 Form of Warrant. The text of the Warrants and of the Purchase Form shall be substantially as set forth in Exhibit A attached hereto. The price per Warrant Share and the number of Warrant Shares issuable upon exercise of each Warrant are subject to adjustment upon the occurrence of certain events, all as hereinafter provided. The Warrants shall be executed on behalf of the Company by its Chief Executive Officer, President, or an Executive or Senior Vice President, under its corporate seal reproduced thereon attested by its Chief Financial Officer, or Secretary or any Assistant Secretary. The signature of any such officers on the Warrants may be manual or facsimile, provided, however, that the signature of any such officers must be manual until such time as a warrant agent is appointed.

1.3 Signatures; Date of Warrants. Warrants bearing the manual or facsimile signatures of individuals who were at any time the proper officers of the Company shall bind the Company, notwithstanding that such individuals or any one of them shall have ceased to hold such offices prior to the delivery of such Warrants or did not hold such offices on the date of this Agreement. In the event that the Company shall appoint a warrant agent to act on its behalf in connection with the division, transfer, exchange or exercise of Warrants, the Warrants issued after the date of such appointment shall be dated as of the date of countersignature thereof by the warrant agent upon division, exchange, substitution or transfer. Until such time as the Company shall appoint a warrant agent, Warrants shall be dated as of the date of execution thereof by the Company either upon initial issuance or upon division, exchange, substitution or transfer.

1.4 Countersignature of Warrants. In the event that the Company shall appoint a warrant agent to act on its behalf in connection with the division, transfer, exchange or exercise of Warrants, the Warrants issued after the date of such appointment shall be countersigned by the warrant agent (or any successor to the warrant agent then acting as warrant agent) and shall not be valid for any purpose unless so countersigned. Warrants may be countersigned, however, by the warrant agent (or by its successor as warrant agent hereunder) and may be delivered by the warrant agent, notwithstanding that the persons whose manual or facsimile signatures appear thereon as proper officers of the Company shall have ceased to be such officers at the time of such countersignature, issuance or delivery. The warrant agent (if so appointed) shall, upon written instructions of the President, Chief Executive Officer, an Executive or Senior Vice President, or the Chief Financial Officer of the Company, countersign, issue and deliver the Warrants and shall countersign and deliver Warrants as otherwise provided in this Agreement.

Section 2. Exercise of Warrants; Restrictions.

2.1 Exercise of Warrants. (a) A Warrant may be exercised upon surrender of the certificate or certificates evidencing the Warrant to be exercised, together with the form of election to purchase on the reverse thereof duly filled in and signed, to the Company at its principal office (or if appointed, the principal office of the warrant agent) and upon payment of the Warrant Price (as defined and determined in accordance with the provisions of Section 3 and Section 6 to the Company (or if appointed, to the warrant agent for the account of the Company), for the number of Warrant Shares in respect of which such Warrants are then exercised. Payment of the aggregate Warrant Price shall be made by bank wire transfer to the account of the Company or bank cashier's check.

(b) Subject to Section 2.2 and Section 5, upon the surrender of the Warrant and payment of the Warrant Price as aforesaid, the Company (or if appointed, the warrant agent) shall promptly, and in any event within three (3) business days, cause to be issued and delivered to or upon the written order of the Holder and in such name or names as the Holder may designate, a certificate or certificates for the number of full Warrant Shares so purchased upon the exercise of such Warrant, together with cash, as provided in Section 8, in respect of any fractional Warrant Shares otherwise issuable upon such exercise. Such Warrant Share certificate or certificates shall be deemed to have been issued and any person so designated to be named therein shall be deemed to have become a holder of record of such Warrant Shares as of the date of the surrender of such Warrants and payment of the Warrant Price, as aforesaid. The rights of purchase represented by the Warrant shall be exercisable, at the election of the Holder thereof, either in full or from time to time in part. In the event that a certificate evidencing the Warrant is exercised in respect of less than all of the Warrant Shares purchasable on such exercise at any time prior to the date of expiration of the Warrant, a new certificate evidencing the unexercised portion of the Warrant will be issued, and the warrant agent (if so appointed) is hereby irrevocably authorized to countersign and to deliver the required new Warrant certificate or certificates pursuant to the provisions of this Section 2.1. The Company, whenever required by the warrant agent (if appointed), will supply the warrant agent with Warrant certificates duly executed on behalf of the Company for such purpose.

2.2 Restrictions on Exercise of Warrants. (a) The Warrants may not be exercised unless registered under the Securities Act of 1933, as amended (the “Act”) or an exemption from such registration is available.

(b) Unless the Warrant and Warrant Shares have been registered under the Act and under any applicable state securities laws, each person who is exercising a Warrant will be required to give written certification that he, she or it is an “accredited investor” or a written opinion of counsel, acceptable to the Company and to the transfer agent of the Common Stock, to the effect that exercise of the Warrant and the issuance of the Warrant Shares are exempt from registration under the Act and under any applicable state securities laws.

(c) The Company shall be entitled to obtain, as a condition precedent to its issuance of any certificates representing Warrant Shares or any other securities issuable upon any exercise of a Warrant, a letter or other instrument from the Holder containing such covenants, representations or warranties by such Holder as reasonably deemed necessary by the Company to effect compliance by the Company with the requirements of the Act and any other applicable United States federal and/or state securities laws.

(d) Any exercise, attempt to exercise, or purported exercise of a Warrant in violation of the restrictions set forth in this Section 2.2 shall be deemed null and void and of no binding effect.

(e) The Company will refuse to issue, and will issue instructions to the transfer agent and registrar of its Common Stock to refuse to issue, any Warrant Shares upon any exercise not made pursuant to registration under the Act and applicable state securities laws, or pursuant to an available exemption from registration under the Act and applicable state securities laws.

Section 3. Warrant Price. Subject to any adjustments required by Section 6, the price per share at which Warrant Shares shall be purchasable upon exercise of a Warrant (as to any particular Warrant, the "Warrant Price") shall be Five Dollars ($5.00) per share.

Section 4. Transferability of Warrants and Warrant Shares; Restrictions on Transfer.

4.1 Registration. Each Warrant shall be numbered and shall be registered on the books of the Company (the "Warrant Register") as issued. The Company and the warrant agent (if appointed) shall be entitled to treat the Holder of any Warrant as the owner in fact thereof for all purposes and shall not be bound to recognize any equitable or other claim or interest in such Warrant on the part of any other person, and shall not be liable for any registration of transfer of any Warrant which is registered or to be registered in the name of a fiduciary or the nominee of a fiduciary upon the instruction of such fiduciary, unless made with the actual knowledge that a fiduciary or nominee is committing a breach of trust in requesting such registration of transfer, or with such knowledge of such facts that its participation therein amounts to bad faith.

4.2 Transfer. Subject to Section 4.3, the Warrants shall be transferable only on the Warrant Register upon delivery of the Warrant certificate duly endorsed by the Holder or by his duly authorized attorney or representative, or accompanied by proper evidence of succession, assignment or authority to transfer. In all cases of transfer by an attorney, the original power of attorney, duly approved, or a copy thereof, duly certified, shall be deposited and remain with the Company (or the warrant agent, if appointed). In case of transfer by executors, administrators, guardians or other legal representatives, duly authenticated evidence of their authority shall be produced, and may be required to be deposited and remain with the Company (or the warrant agent, if appointed) in its discretion. Upon any registration of transfer, the Company shall execute and deliver (or if appointed, the warrant agent shall countersign and deliver) a new Warrant or Warrants to the persons entitled thereto.

4.3 Restrictions on Transfer of Warrants and Warrant Shares. (a) The Warrants, and any Warrant Shares issued upon the exercise of the Warrants, may not be sold, pledged, hypothecated, transferred or assigned, in whole or in part, unless a registration statement under the Act, and under any applicable state securities laws, is effective therefor, or an exemption from such registration is then available and an opinion of counsel, acceptable to the Company and to the transfer agent or warrant agent, if any, has been rendered stating that such sale, pledge, hypothecation, transfer or assignment will not violate the Act or any other United States federal or state securities laws.

(b) As a condition precedent to the registration of transfer and issuance of any certificates representing Warrants or Warrant Shares upon transfer, the Company shall be entitled to obtain a letter or other instrument from the Holder containing such covenants, representations or warranties by such Holder as reasonably deemed necessary by the Company to effect compliance by the Company with the requirements of the Act and any other applicable federal and/or state securities laws.

(c) Any sale, pledge, hypothecation, transfer, or assignment of a Warrant or Warrant Shares in violation of the foregoing restrictions shall be deemed null and void and of no binding effect.

(d) The Company will issue instructions to any warrant agent that may be appointed, and to the transfer agent and registrar of its Common Stock, to refuse to register the transfer of any Warrant and Warrant Shares not made pursuant to registration under the Act and applicable state securities laws, or pursuant to an available exemption from registration under the Act and applicable state securities laws.

Section 5. Payment of Taxes. The Company will pay all documentary stamp taxes, if any, attributable to the initial issuance of Warrant Shares upon the exercise of Warrants; provided, however, that the Company shall not be required to pay any tax or taxes which may be payable in respect of any transfer involved in the issue or delivery of any Warrant or certificates for Warrant Shares in a name other than that of the registered Holder of such Warrants or Warrant Shares.

Section 6. Adjustment of Warrant Price and Number of Warrant Shares. The number and kind of securities purchasable upon the exercise of each Warrant and the Warrant Price shall be subject to adjustment from time to time upon the happening of certain events, as hereinafter defined.

6.1 Adjustments. The number of Warrant Shares purchasable upon the exercise of each Warrant and the Warrant Price shall be subject to adjustment as follows:

(a) If the Company shall (i) pay a dividend in shares of Common Stock or make a distribution in shares of Common Stock, (ii) subdivide its outstanding shares of Common Stock, (iii) combine its outstanding shares of Common Stock into a smaller number of shares of Common Stock or (iv) reclassify or change (including a change to the right to receive, or a change into, as the case may be (other than with respect to a merger or consolidation pursuant to the exercise of appraisal rights), shares of stock, other securities, property, cash or any combination thereof) its Common Stock (including any such reclassification or change in connection with a consolidation or merger in which the Company is the surviving corporation), the number of Warrant Shares purchasable upon exercise of each Warrant immediately prior thereto shall be adjusted so that the Holder of each Warrant shall be entitled to receive the kind and number of Warrant Shares or other securities of the Company or other property which the Holder would have owned or have been entitled to receive after the happening of any of the events described above, had such Warrant been exercised immediately prior to the happening of such event or any record date with respect thereto. An adjustment made pursuant to this paragraph (a) shall become effective immediately after the effective date of such event retroactive to the record date, if any, for such event.

(b) If the Company shall issue rights, options or warrants to all holders of its outstanding Common Stock, without any charge to such holders, entitling them to subscribe for or purchase shares of Common Stock at a price per share which is lower at the record date mentioned below than the then current market price per share of Common Stock (as defined in paragraph (d) below), the number of Warrant Shares thereafter purchasable upon the exercise of each Warrant shall be determined by multiplying the number of Warrant Shares theretofore purchasable upon exercise of each Warrant by a fraction, of which the numerator shall be the number of shares of Common Stock outstanding on the date of issuance of such rights, options or warrants plus the number of additional shares of Common Stock offered for subscription or purchase in connection with such rights, options or warrants, and of which the denominator shall be the number of shares of Common Stock outstanding on the date of issuance of such rights, options or warrants plus the number of shares which the aggregate exercise price of the total number of shares of Common Stock issuable upon exercise of such rights, options or warrants would purchase at the current market price per share of Common Stock (as determined pursuant to paragraph (d) below) at such record date. Such adjustment shall be made whenever such rights, options or warrants are issued, and shall become effective immediately after the record date for the determination of stockholders entitled to receive such rights, options or warrants.

(c) If the Company shall distribute to all holders of its shares of Common Stock (including any distribution made in connection with a merger in which the Company is the surviving corporation) evidences of its indebtedness or assets (excluding cash, dividends or distributions payable out of consolidated earnings or earned surplus and dividends or distributions referred to in paragraph (a) above) or rights, options or warrants, or convertible or exchangeable securities containing the right to subscribe for or purchase shares of Common Stock (excluding those referred to in paragraph (b) above), then in each case the number of Warrant Shares thereafter purchasable upon the exercise of each Warrant shall be determined by multiplying the number of Warrant Shares theretofore purchasable upon the exercise of each Warrant by a fraction, of which the numerator shall be the then current market price per share of Common Stock (as determined pursuant to paragraph (d) below) on the date of such distribution, and of which the denominator shall be the then current market price per share of Common Stock, less the then fair value (as determined by the Board of Directors of the Company, whose determination shall be conclusive) of the portion of the assets or evidences of indebtedness so distributed or of such subscription rights, options or warrants, or of such convertible or exchangeable securities applicable to one share of Common Stock. Such adjustment shall be made whenever any such distribution is made, and shall become effective on the date of distribution retroactive to the record date for the determination of shareholders entitled to receive such distribution.

(d) For the purpose of any computation under paragraphs (b) and (c) of this Section 6.1, the current market price per share of Common Stock at any date shall be the average of the daily closing prices for the 20 consecutive trading days ending one trading day prior to the date of such computation. The closing price for each day shall be the last reported sales price regular way or, in case no such reported sale takes place on such day, the average of the closing bid and asked prices regular way for such day, in each case on the principal national securities exchange on which the shares of Common Stock are listed or admitted to trading or, if not so listed or admitted to trading, the last sale price of the Common Stock on the OTC Bulletin Board, or any comparable system. If the current market price of the Common Stock cannot be so determined, the Board of Directors of the Company shall reasonably determine the current market price on the basis of such quotations as are available.

(e) No adjustment in the number of Warrant Shares purchasable hereunder shall be required unless such adjustment would require an increase or decrease of at least one percent (1%) in the number of Warrant Shares purchasable upon the exercise of each Warrant; provided, however, that any adjustments which by reason of this paragraph (e) are not required to be made shall be carried forward and taken into account in the determination of any subsequent adjustment. All calculations shall be made with respect to the number of Warrant Shares purchasable hereunder, to the nearest tenth of a share and with respect to the Warrant Price payable hereunder, to the nearest whole cent.

(f) Whenever the number of Warrant Shares purchasable upon the exercise of each Warrant is adjusted, as herein provided, the Warrant Price payable upon exercise of each Warrant shall be adjusted by multiplying such Warrant Price immediately prior to such adjustment by a fraction, of which the numerator shall be the number of Warrant Shares purchasable upon the exercise of each Warrant immediately prior to such adjustment, and of which the denominator shall be the number of Warrant Shares purchasable immediately thereafter.

(g) No adjustment in the number of Warrant Shares purchasable upon the exercise of each Warrant need be made under paragraphs (b) and (c) if the Company issues or distributes to each Holder of Warrants the rights options, warrants, or convertible or exchangeable securities, or evidences of indebtedness or assets referred to in those paragraphs which each Holder of Warrants would have been entitled to receive had the Warrants been exercised prior to the happening of such event or the record date with respect thereto. No adjustment need be made for a change in the par value of the Warrant Shares.

(h) For the purpose of this Warrant, the term “Common Stock” shall mean (i) the class of stock designated as the common shares or common stock of the Company at the date of this Agreement, or (ii) any other class of stock resulting from successive changes or reclassifications of such shares consisting solely of changes in par value, or from par value to no par value, or from no par value to par value. In the event that at any time, as a result of an adjustment made pursuant to paragraph (a) above, the Holders shall become entitled to purchase any securities of the Company other than shares of Common Stock, thereafter the number of such other shares so purchasable upon exercise of each Warrant, and the Warrant Price of such shares, shall be subject to adjustment from time to time in a manner and on terms as nearly equivalent as practicable to the provisions with respect to the Warrant Shares contained in paragraphs (a) through (i), inclusive, and the provisions of Section 6.3 and Section 8, with respect to the Warrant Shares, shall apply on like terms to any such other securities.

(i) Upon the expiration of any rights, options, warrants or conversion or exchange privileges, if any thereof shall not have been exercised, the Warrant Price and the number of Warrant Shares purchasable upon the exercise of each Warrant shall, upon such expiration, be readjusted and shall thereafter be such as it would have been had it been originally adjusted (or had the original adjustment not been required, as the case may be) as if (A) the only shares of Common Stock so issued were the shares of Common Stock, if any, actually issued or sold upon the exercise of such rights, options, warrants or conversion or exchange rights and (B) such shares of Common Stock, if any, were issued or sold for the consideration actually received by the Company upon such exercise plus the aggregate consideration, if any, actually received by the Company for the issuance, sale or grant of all such rights, options, warrants or conversion or exchange rights whether or not exercised.

6.2 Notice of Adjustment. Whenever the number of Warrant Shares purchasable upon the exercise of each Warrant or the Warrant Price of such Warrant Shares is adjusted, as herein provided, the Company shall, or in the event that a warrant agent is appointed, the Company shall cause the warrant agent, promptly, in any event within ten (10) days send to each Holder notice of such adjustment or adjustments. Such notice shall set forth the number of Warrant Shares purchasable upon the exercise of each Warrant and the Warrant Price of such Warrant Shares after such adjustment, setting forth a brief statement of the facts requiring such adjustment and setting forth the computation by which such adjustment was made.

6.3 No Adjustment for Dividends. Except as provided in Section 6.1, no adjustment in respect of any dividends shall be made during the term of a Warrant or upon the exercise of a Warrant.

6.4 Preservation of Purchase Rights Upon Merger, Consolidation, etc. In case of any consolidation of the Company with or merger of the Company into another corporation or in case of any sale, transfer or lease to another corporation of all or substantially all the property of the Company, the Company or such successor or purchasing corporation, as the case may be, shall execute an agreement that each Holder shall have the right thereafter, upon such Holder's election, either (i) upon payment of the Warrant Price in effect immediately prior to such action, to purchase upon exercise of each Warrant the kind and amount of shares and other securities and property (including cash) which the Holder would have owned or have been entitled to receive after the happening of such consolidation, merger, sale, transfer or lease had such Warrant been exercised immediately prior to such action (such shares and other securities and property (including cash) being referred to as the "Sale Consideration") or (ii) to receive, in cancellation of such Warrant (and in lieu of paying the Warrant price and exercising such Warrant), the Sale Consideration less a portion thereof having a fair market value (as reasonably determined by the Company) equal to the Warrant Price (it being understood that, if the Sale Consideration consists of more than one type of shares, other securities or property, the amount of each type of shares, other securities or property to be received shall be reduced proportionately); provided, however, that no adjustment in respect of dividends, interest or other income on or from such shares or other securities and property shall be made during the term of a Warrant or upon the exercise of a Warrant. The Company shall mail by first class mail, postage prepaid, to each Holder, notice of the execution of any such agreement. Such agreement shall provide for adjustments, which shall be as nearly equivalent as may be practicable to the adjustments provided for in this Section 6. The provisions of this paragraph shall similarly apply to successive consolidations, mergers, sales, transfers or leases. The warrant agent (if appointed) shall be under no duty or responsibility to determine the correctness of any provisions contained in any such agreement relating to the kind or amount of shares of stock or other securities or property receivable upon exercise of Warrants or with respect to the method employed and provided therein for any adjustments and shall be entitled to rely upon the provisions contained in any such agreement.

6.5 Statement on Warrants. Irrespective of any adjustments in the Warrant Price or the number or kind of shares purchasable upon the exercise of the Warrants, Warrants issued before or after such adjustment may continue to express the same price and number and kind of shares as are stated in the Warrants initially issuable pursuant to this Agreement.

Section 7. Reservation of Warrant Shares; Purchase and Cancellation of Warrants.

7.1 Reservation of Warrant Shares. There have been reserved, and the Company shall at all times keep reserved, out of its authorized Common Stock, a number of shares of Common Stock sufficient to provide for the exercise of the rights of purchase represented by the outstanding Warrants and any additional Warrants issuable hereunder. The Transfer Agent for the Common Stock and every subsequent transfer agent for any shares of the Company's capital stock issuable upon the exercise of any of the rights of purchase aforesaid will be irrevocably authorized and directed at all times to reserve such number of authorized shares as shall be required for such purpose. The Company will keep a copy of this Agreement on file with the Transfer Agent for the Common Stock and with every subsequent transfer agent for any shares of the Company's capital stock issuable upon the exercise of the rights of purchase represented by the Warrants. The warrant agent, if appointed, will be irrevocably authorized to requisition from time to time from such Transfer Agent the stock certificates required to honor outstanding Warrants upon exercise thereof in accordance with the terms of this Agreement. The Company will supply such Transfer Agent with duly executed stock certificates for such purposes and will provide or otherwise make available any cash which may be payable as provided in Section 8. The Company will furnish such Transfer Agent a copy of all notices of adjustments and certificates related thereto, transmitted to each Holder pursuant to Section 6.2.

7.2 Purchase of Warrants by the Company. The Company shall have the right, except as limited by law, other agreements or herein, with the consent of the Holder, to purchase or otherwise acquire Warrants at such times, in such manner and for such consideration as it may deem appropriate.

7.3 Cancellation of Warrants. In the event the Company shall purchase or otherwise acquire Warrants, the same shall thereupon be cancelled and retired. The warrant agent (if so appointed) shall cancel any Warrant surrendered for exchange, substitution, transfer or exercise in whole or in part.

Section 8. Fractional Interests. The Company shall not be required to issue fractional Warrant Shares on the exercise of Warrants. If more than one Warrant shall be presented for exercise in full at the same time by the same Holder, the number of full Warrant Shares which shall be issuable upon the exercise thereof shall be computed on the basis of the aggregate number of Warrant Shares purchasable on exercise of the Warrants so presented. If any fraction of a Warrant Share would, except for the provisions of this Section 8, be issuable on the exercise of any Warrant (or specified portion thereof), the Company shall pay an amount in cash equal to the average of the daily closing sale prices (determined in accordance with paragraph 6.1(d)) per share of Common Stock for the 20 consecutive trading days ending one trading day prior to the date the Warrant is presented for exercise, multiplied by such fraction.

Section 9. Exchange of Warrant Certificates. Each Warrant certificate may be exchanged, at the option of the Holder thereof, for another Warrant certificate or Warrant certificates in different denominations entitling the Holder or Holders thereof to purchase a like aggregate number of Warrant Shares as the certificate or certificates surrendered then entitle the Holder to purchase. Any Holder desiring to exchange a Warrant certificate or certificates shall make such request in writing delivered to the Company at its principal office (or, if a warrant agent is appointed, the warrant agent at its principal office) and shall surrender, properly endorsed, the certificate or certificates to be so exchanged. Thereupon, the Company (or, if appointed, the warrant agent) shall execute and deliver to the person entitled thereto a new Warrant certificate or certificates, as the case may be, as so requested, in such name or names as such Holder shall designate.

Section 10. Listing of Warrant Shares on Securities Exchange. The Company will promptly use commercially reasonable efforts to cause the Warrant Shares to be listed, subject to official notice of issuance, on the principal national securities exchanges on which the Common Stock is listed and whose rules and regulations require such listing, as soon as practicable following the date of this Warrant Agreement.

Section 11. Mutilated or Missing Warrants. In case any of the certificates evidencing the Warrants shall be mutilated, lost, stolen or destroyed, the Company may in its discretion issue and deliver (and, if appointed, the warrant agent shall countersign and deliver) in exchange and substitution for and upon cancellation of the mutilated Warrant certificate, or in lieu of and substitution for the Warrant certificate lost, stolen or destroyed, a new Warrant certificate of like tenor, but only upon receipt of evidence reasonably satisfactory to the Company and the warrant agent (if so appointed) of such loss, theft or destruction of such Warrant, and an indemnity or bond, if requested, also reasonably satisfactory to them. An applicant for such a substitute Warrant certificate shall also comply with such other reasonable regulations and pay such other reasonable charges as the Company (or the warrant agent, if so appointed) may prescribe.

Section 12. No Rights as Shareholders; Notices to Holders. Nothing contained in this Agreement or in any of the Warrants shall be construed as conferring upon the Holders or their transferees the right to vote or to receive dividends or to consent or to receive notice as shareholders in respect of any meeting of shareholders for the election of directors of the Company or any other matter, or any rights whatsoever as shareholders of the Company. If, however, at any time prior to the expiration of the Warrants and prior to their exercise, any of the following events shall occur: (a) the Company shall declare any dividend payable in any securities upon its shares of Common Stock or make any distribution (other than a regular cash dividend, as such dividend may be increased from time to time, or a dividend payable in shares of Common Stock) to the holders of its shares of Common Stock; or (b) the Company shall offer to the holders of its shares of Common Stock on a pro rata basis any cash, additional shares of Common Stock or other securities of the Company or any right to subscribe for or purchase any thereof; or (c) a dissolution, liquidation or winding up of the Company (other than in connection with a consolidation, merger, sale, transfer or lease of all or substantially all of its property, assets, and business as an entirety) shall be proposed, then in any one or more of said events the Company shall (i) give notice in writing of such event as provided in Section 14 and (ii) if the Warrants have been registered pursuant to the Act, cause notice of such event to be published once in The Wall Street Journal (national edition), such giving of notice and publication to be completed at least 10 days prior to the date fixed as a record date or the date of closing the transfer books for the determination of the stockholders entitled to such dividend, distribution, or subscription rights or for the determination of stockholders entitled to vote on such proposed dissolution, liquidation or winding up or the date of expiration of such offer. Such notice shall specify such record date or the date of closing the transfer books or the date of expiration, as the case may be. Failure to publish, mail or receive such notice or any defect therein or in the publication or mailing thereof shall not affect the validity of any action in connection with such dividend, distribution or subscription rights, or such proposed dissolution, liquidation or winding up, or such offer.

Section 13. Appointment of Warrant Agent. At such time as the Company shall register Warrants under the Act, the Company shall appoint a warrant agent to act on behalf of the Company in connection with the issuance, division, transfer and exercise of Warrants. At such time as the Company appoints a warrant agent, the Company shall enter into a new Warrant Agreement with the warrant agent pursuant to which all new Warrants will be issued upon registration of transfer or division, which will reflect the appointment of the warrant agent, as well as additional customary provisions as shall be reasonably requested by the warrant agent in connection with the performance of its duties. In the event that a warrant agent is appointed, the Company shall (i) promptly notify the Holders of such appointment and the place designated for transfer, exchange and exercise of the Warrants, and (ii) take such steps as are necessary to insure that Warrants issued prior to such appointment may be exchanged for Warrants countersigned by the warrant agent.

Section 14. Notices; Principal Office. Any notice pursuant to this Agreement by the Company or by any Holder to the warrant agent (if so appointed), or by the warrant agent (if so appointed) or by any Holder to the Company, shall be in writing and shall be delivered in person, or mailed first class, postage prepaid, or sent by air delivery service (a) to the Company, at its office, Attention: Chief Financial Officer, or (b) to the warrant agent, at its offices as designated at the time the warrant agent is appointed. The address of the principal office of the Company is 1301 Harbor Bay Parkway, Suite 100, Alameda, California 94502. Any notice given pursuant to this Agreement by the Company or the warrant agent to a Holder shall be in writing and shall be mailed first class, postage prepaid, or sent by air delivery service, or otherwise delivered to such Holder at the Holder's address on the books of the Company or the warrant agent, as the case may be. Each party hereto and any Holder may from time to time change the address to which notices to it are to be delivered or mailed hereunder by notice to the other party.

Section 15. Successors. Except as expressly provided herein to the contrary, all the covenants and provisions of this Agreement by or for the benefit of the Company and the Holder shall bind and inure to the benefit of their respective successors and permitted assigns hereunder.

Section 16. Legends. The Warrants shall bear an appropriate legend, conspicuously disclosing the restrictions on exercise under Section 2.2, and the Warrants and Warrant Shares shall bear an appropriate legend, conspicuously disclosing the restrictions on transfer under Section 4.3 until the same are registered for sale under the Act or are transferred in a transaction exempt from registration under the Act entitling the transferee to receive securities that are not deemed to be "restricted securities" as such term is defined in Rule 144 under the Act. The Company agrees that upon the sale of the Warrants and Warrant Shares pursuant to a registration statement or an exemption entitling the transferee to receive securities that are not deemed to be "restricted securities," or at such time as registration under the Act shall no longer be required, upon the presentation of the certificates containing such a legend to the transfer agent or warrant agent, if any, it will remove such legend; provided, that unless the request for removal of the legend is in connection with a sale registered under the Act, the Holder shall have provided an opinion of counsel, acceptable to the Company and the transfer agent or warrant agent, as applicable, to the effect that such legend may be removed in compliance with the Act.

Section 17. Applicable Law. This Agreement and each Warrant issued hereunder shall be governed by and construed in accordance with the laws of the State of California, without giving effect to principles of conflict of laws.

Section 18. Benefits of this Agreement. This Agreement shall be for the sole and exclusive benefit of the Company, the warrant agent and the Holders of the Warrants. Nothing in this Agreement shall be construed to give to any person or corporation other than the Company, the warrant agent (if appointed) and the Holders any legal or equitable right, remedy or claim under this Agreement.

Section 19. Counterparts. This Agreement may be executed in any number of counterparts (including by separate counterpart signature pages) and each of such counterparts shall for all purposes be deemed to be an original, and all such counterparts shall together constitute but one and the same instrument.

Section 20. Captions. The captions of the Sections and subsections of this Agreement have been inserted for convenience only and shall have no substantive effect.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed, all as of the day and year first above written.

BIOTIME, INC.

By: Michael D. West
Michael D. West,
Chief Executive Officer

Attest:

By: Judith Segall
Judith Segall, Secretary

EXHIBIT A

THIS WARRANT HAS NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "ACT"), OR UNDER APPLICABLE STATE SECURITIES LAWS. THIS WARRANT MAY NOT BE EXERCISED, SOLD, PLEDGED, HYPOTHECATED, TRANSFERRED OR ASSIGNED EXCEPT PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE ACT AND APPLICABLE STATE SECURITIES LAWS, OR PURSUANT TO AN AVAILABLE EXEMPTION FROM REGISTRATION. HEDGING TRANSACTIONS INVOLVING THIS WARRANT OR ANY COMMON STOCK OR OTHER SECURITIES ISSUABLE UPON EXERCISE OF THIS WARRANT MAY NOT BE CONDUCTED UNLESS IN COMPLIANCE WITH THE ACT

VOID AFTER 5:00 P.M. NEW YORK TIME, January 13, 2016

Certificate No. _____ Warrant to Purchase

[Insert number of Shares]

Shares of Common Stock

BIOTIME, INC.
COMMON STOCK PURCHASE WARRANTS

This certifies that, for value received, _____ or registered assigns (the "Holder"), is entitled to purchase from BioTime, Inc. a California corporation (the "Company"), at a purchase price per share of Five Dollars ($5.00) (the "Warrant Price"), the number of its Common Shares, no par value per share (the "Common Stock"), shown above. The number of shares purchasable upon exercise of the Common Stock Purchase Warrants (the "Warrants") and the Warrant Price are subject to adjustment from time to time as set forth in the Warrant Agreement referred to below. Outstanding Warrants not exercised prior to 5:00 p.m., New York time, on January 13, 2016 shall thereafter be void.

Subject to restriction specified in the Warrant Agreement, Warrants may be exercised in whole or in part by presentation of this Warrant Certificate with the Purchase Form on the reverse side hereof duly executed, and simultaneous payment of the Warrant Price (or as otherwise set forth in Section 6.4 of the Warrant Agreement) at the principal office of the Company (or if a warrant agent is appointed, at the principal office of the warrant agent). Payment of the Warrant Price shall be made by bank wire transfer to the account of the Company or by bank cashier's check as provided in Section 2.1 of the Warrant Agreement. As provided in the Warrant Agreement, the Warrant Price and the number or kind of shares which may be purchased upon the exercise of the Warrant evidenced by this Warrant Certificate are, upon the happening of certain events, subject to modification and adjustment.

This Warrant Certificate is issued under and in accordance with a Warrant Agreement dated as of January 14, 2013, and is subject to the terms and provisions contained in the Warrant Agreement, to all of which the Holder of this Warrant Certificate by acceptance of this Warrant Certificate consents. A copy of the Warrant Agreement may be obtained by the Holder hereof upon written request to the Company. In the event that pursuant to Section 13 of the Warrant Agreement a warrant agent is appointed and a new warrant agreement entered into between the Company and such warrant agent, then such new warrant agreement shall constitute the Warrant Agreement for purposes hereof and this Warrant Certificate shall be deemed to have been issued pursuant to such new warrant agreement.

Upon any partial exercise of the Warrant evidenced by this Warrant Certificate, there shall be issued to the Holder hereof a new Warrant Certificate in respect of the shares of Common Stock as to which the Warrant evidenced by this Warrant Certificate shall not have been exercised. This Warrant Certificate may be exchanged at the office of the Company (or the warrant agent, if appointed) by surrender of this Warrant Certificate properly endorsed either separately or in combination with one or more other Warrant Certificates for one or more new Warrant Certificates evidencing the right of the Holder thereof to purchase the aggregate number of shares as were purchasable on exercise of the Warrants evidenced by the Warrant Certificate or Certificates exchanged. No fractional shares will be issued upon the exercise of any Warrant, but the Company will pay the cash value thereof determined as provided in the Warrant Agreement. This Warrant Certificate is transferable at the office of the Company (or the warrant agent, if appointed) in the manner and subject to the limitations set forth in the Warrant Agreement.

The Holder hereof may be treated by the Company, the warrant agent (if appointed), and all other persons dealing with this Warrant Certificate as the absolute owner hereof for any purpose and as the person entitled to exercise the rights represented hereby, or to the transfer hereof on the books of the Company, any notice to the contrary notwithstanding, and until such transfer on such books, the Company (and the warrant agent, if appointed) may treat the Holder hereof as the owner for all purposes.

Neither the Warrant nor this Warrant Certificate entitles any Holder to any of the rights of a stockholder of the Company.

[This Warrant Certificate shall not be valid or obligatory for any purpose until it shall have been countersigned by the warrant agent.]*

DATED:

BIOTIME, INC.

(Seal)

By: _____

Title: _____

Attest: _____

[COUNTERSIGNED:
WARRANT AGENT

By: _____]*
Authorized Signature

_____

* To be part of the Warrant only after the appointment of a warrant agent pursuant to Section 13 of the Warrant Agreement.

PURCHASE FORM

(To be executed upon exercise of Warrant)

To BioTime, Inc.:

The undersigned hereby irrevocably elects to exercise the right of purchase represented by the within Warrant Certificate for, and to purchase thereunder, _____ shares of Common Stock, as provided for therein, and tenders herewith payment of the Warrant Price in full in the form of a bank wire transfer to the account of the Company or by bank cashier's check in the amount of $_____.

Please issue a certificate or certificates for such shares of Common Stock in the name of, and pay any cash for any fractional share to:

_____
(Please Print Name)

_____
(Please Print Address)

_____
(Social Security Number or
Other Taxpayer Identification Number)

_____
(Signature)

NOTE: The above signature should correspond exactly with the name on the face of this Warrant Certificate or with the name of the assignee appearing in the assignment form below.

And, if said number of shares shall not be all the shares purchasable under the within Warrant Certificate, a new Warrant Certificate is to be issued in the name of said undersigned for the balance remaining of the share purchasable thereunder less any fraction of a share paid in cash.

ASSIGNMENT

(To be executed only upon assignment of Warrant Certificate)

For value received, _____ hereby sells, assigns and transfers unto _____ the within Warrant Certificate, together with all right, title and interest therein, and does hereby irrevocably constitute and appoint _____ attorney, to transfer said Warrant Certificate on the books of the within-named Company, with full power of substitution in the premises.

Dated: _____

_____

(Signature)

NOTE: The above signature should correspond exactly with the name on the face of this Warrant Certificate.

Exhibit 10.55

SECOND AMENDMENT OF
SHARE EXCHANGE AND CONTRIBUTION AGREEMENT

This Second Amendment is entered into as of November 30, 2012 and amends that certain Share Exchange and Contribution Agreement, as previously amended (the **Agreement**), among LifeMap Sciences, Inc., a California corporation (the **Company**) and Alfred D. Kingsley and Greenway Partners, L.P. (collectively, **Investor**).

1. The definition of Second Outside Date found is Section 1(j) of the Agreement is amended to read: "Second Outside Date" means December 14, 2012.

2. All other terms of the Agreement remain in full force and effect.

IN WITNESS WHEREOF, the parties have executed this Amendment as of the day and year first written above.

LIFEMAP SCIENCES, INC.

By: */s/ David Warshawsky*

Title: Chief Executive Officer

/s/ Alfred D. Kingsley
Alfred D. Kingsley

Greenway Partners, Ltd.

By: Greenhouse Partners, L.P.,
its general partner

By: */s/ Alfred D. Kingsley*
Alfred D. Kingsley, General Partner

Exhibit 10.58

STOCK AND WARRANT PURCHASE AGREEMENT

BIOTIME, INC.

1,350,000 Units

Each Unit Consisting of One Common Share
and
0.48148 of a Common Share Purchase Warrant

Price: $3.7037 per Unit

READ THIS AGREEMENT CAREFULLY BEFORE YOU INVEST

The Units (each consisting of one common share, no par value ("Share"), and 0.48148 of a Common Share Purchase Warrant ("Warrant")) and the common shares issuable upon the exercise of the Warrants ("Warrant Shares") have not been registered under the Securities Act of 1933, as amended, or applicable state securities laws and may not be offered for sale, sold, transferred, pledged or hypothecated to any person, and the Warrants may not be exercised, in the absence of an effective registration statement covering such securities (or an exemption from such registration) and an opinion of counsel satisfactory to BioTime, Inc. to the effect that such transfer complies with applicable securities laws.

PURCHASE AGREEMENT

This Agreement is entered into by Romulus Films Ltd. (“Purchaser”) and BioTime, Inc., a California corporation (the “Company).

1. Purchase and Sale of Units.

(a) Purchaser hereby irrevocably agrees to purchase, and the Company hereby irrevocably agrees to sell to Purchaser 1,350,000 Units at the price of $3.7037 per Unit. Each Unit consists of one common share, no par value (“Share”), of the Company and 0.48148 of a Common Share Purchase Warrant (“Warrant”). Each whole Warrant will entitle the holder to purchase, on the terms and conditions set forth in the Warrant Agreement governing the Warrant, one common share, no par value of the Company (“Warrant Share”) for $5.00 per Warrant Share (the “Warrant Price”), subject to adjustment as provided in the Warrant Agreement a copy of which is attached as Exhibit A (the “Warrant Agreement”).

(b) No fractional Units shall be sold and no fractional Shares or fractional Warrants shall be issued. If the sale of Units to Purchaser would result in the issuance of a fractional Warrant, the fractional portion of the Warrant shall be disregarded and there shall be no reduction in the purchase price of the Units or cash payment in lieu of the disregarded fractional Warrant. The number of whole Warrants shall be determined based on the total number of Units to be sold to Purchaser at a Closing (as defined below) so that fractional Warrants will be aggregated to minimize or, if possible, eliminate potential fractional Warrants so that in the aggregate the Purchaser receives only whole Warrants.

2. Closing. The consummation of the sale of the Units (“Closing”) will take place in two tranches (each a “Tranche’), a 540,000 Unit tranche (the “First Tranche”) and an 810,000 Unit tranche (the “Second Tranche”). The Closing of the First Tranche (540,000 Units) will take place on January 4, 2013, or on such other date, not later than January 18, 2013, on which BioTime enters into a lease for the office and laboratory facility located at 230 Constitution Drive, Menlo Park, California (the “Lease”). The Closing of the Second Tranche (810,000 Units) will take place concurrently with, and shall be conditioned upon, the closing of the “Stem Cell Transaction.” The Stem Cell Transaction means a transaction among the Company, BioTime Acquisition Corporation (“BAC”), and Geron Corp. (“Geron”) pursuant to which Geron and the Company will contribute certain assets to BAC in exchange for shares of BAC common stock, and in the case of the Company, certain BAC stock purchase warrants. The obligations of BioTime and BAC to close the Stem Cell Transaction may be conditioned upon your purchase of the Units pursuant to this Agreement, and BAC common stock pursuant to an agreement with BAC.

(a) The Company will give Purchaser at least two business days prior notice of the date on which the Closing of the First Tranche will take place (“First Closing Date”). On the First Closing Date, Purchaser shall purchase 540,000 Units and shall pay to the Company, by wire transfer to an account designated by the Company, the full purchase price of such Units. On the First Closing Date, the Company will issue to the Purchaser the Shares and Warrants comprising the Units purchased. The Company shall apply the proceeds from the First Tranche to (i) its obligations arising under or with respect to the Lease, (ii) other Company operating expenses, and (iii) expenses arising in connection with the Stem Cell Transaction, and the Company may advance proceeds, in whole or in part, to BAC to finance costs and expenses incurred by BAC in connection with the Stem Cell Transaction, and costs and expenses incurred by BAC prior to the closing of the Stem Cell Transaction.

(b) The Company shall give Purchaser not less than five (5) business days prior notice of the date on which the Closing of the Second Tranche will take place ("Second Closing Date"). On the Second Closing Date, Purchaser shall purchase 810,000 Units and shall pay to the Company, by wire transfer to an account designated by the Company (which may, at the Company's election, be an account of BAC), the full purchase price of such Units. On the Second Closing Date, the Company will issue to the Purchaser the Shares and Warrants comprising the Units purchased.

(c) The issue of the Shares purchased may be, at the election of the Company, by book entry of such Shares purchased, in the name of the Purchaser, on the records of the transfer agent of the Shares or by a stock certificate in the name of the Purchaser for the number of Shares purchased. Warrants purchased shall be delivered to the Purchaser upon the First Closing Date or Second Closing Date, as applicable, along with a copy of the Warrant Agreement governing the Warrants executed by the Company.

(d) The Closing of each Tranche of the sale of the Shares and Warrants shall be subject to the following conditions:

(i) The representations and warranties of the Company contained in this Agreement shall be true and correct in all material respects on the date of the applicable Closing, and the Company shall have complied in all material respects with its covenants required to have been performed as of the applicable date of Closing;

(ii) No event shall have occurred that has had, or is reasonably expected to have, a Material Adverse Effect;

(iii) No litigation or other proceeding of any kind to enjoin, delay, prohibit or restrict the consummation of the sale of the Shares and Warrants under this Agreement, or the Stem Cell Transaction shall be pending, and there shall be no judgment, order or writ of any court or government authority in effect prohibiting or restricting the consummation of the of the sale of the Shares and Warrants under this Agreement, or consummation of the Stem Cell Transaction by any party;

(iv) The Shares to be sold on the applicable Closing, and the Warrant Shares issuable upon the exercise of the Warrants to be sold on the applicable Closing, shall have been approved for listing on the NYSE MKT;

(v) In the case of the Closing of the Second Tranche only, the Stem Cell Transaction shall have closed or shall close concurrently with the Closing.

(e) As used in this Agreement, "Material Adverse Effect" shall mean any change that does, or would be reasonably expected to, have a material adverse effect on the business, operations, financial condition, or assets of the Company on a consolidated basis, provided, however, that none of the following shall be deemed either alone or in combination to constitute, and none of the following shall be taken into account in determining whether there has been or would be, a Material Adverse Effect: (a) any adverse effect resulting from or arising out of the announcement, pendency, or consummation of the transactions contemplated by this Agreement or the Stem Cell Transaction; (b) any adverse effect resulting from or arising out of general economic conditions; (c) any adverse effect resulting from or arising out of general conditions in the industries in which the Company or Geron operates; (d) any adverse effect resulting from or arising out of any natural disaster or any acts of terrorism, sabotage, military action or war or any escalation or worsening thereof; and (e) any adverse effect resulting from or arising out of any changes in any law, statute, rule or regulation, or the judicial or administrative interpretation thereof, or any change in generally accepted accounting principles.

3. Registration Rights. Concurrently with the execution and delivery of this Agreement, Purchaser and the Company shall enter into a Registration Rights Agreement in the form of Exhibit B, pursuant to which the Company is agreeing to register the Shares, the Warrants and the Warrant Shares under the Securities Act of 1933, as amended (the "Act").

4. Representations and Warranties of BioTime. The Company makes the following representations and warranties for the benefit and reliance of Purchaser. The following representations and warranties are true and correct on the date of this Agreement and shall be true as of the First Closing Date and Second Closing Date, as applicable, and are qualified accordingly.

(a) Organization. The Company is a corporation duly organized, validly existing and in good standing under the laws of the state of California, with the requisite power and authority to own and use its properties and assets and to carry on its business as currently conducted. The Company is duly qualified to conduct business and is in good standing as a foreign corporation in each jurisdiction in which the nature of the business conducted or property owned by it makes such qualification necessary, except where the failure to so qualify would not have a material adverse effect on its business.

(b) Authority; Enforceability. The Company has the corporate power and authority (i) to execute and deliver, and to perform all of its obligations under, this Agreement, the Warrant Agreement, and the Registration Rights Agreement, and (ii) to execute and deliver, and to perform all of its obligations under, the agreements to which it currently is contemplated the Company will be a party in consummation of the Stem Cell Transaction. The execution and delivery of this Agreement, the Warrant Agreement, and the Registration Rights Agreement and the performance by the Company of its obligations under this Agreement, the Warrant Agreement, and the Registration Rights Agreement have been duly authorized by all necessary action on the part of the Board of Directors of the Company. This Agreement, the Warrant Agreement and the Registration Rights Agreement are the valid and binding agreements of the Company, enforceable in accordance with their respective terms, except to the extent limited by any bankruptcy, insolvency, or similar law affecting the rights of creditors generally.

(c) No Conflict. The execution and delivery of this Agreement, the Warrant Agreement, and the Registration Rights Agreement, the consummation of the transactions contemplated hereunder and thereunder, and the consummation of the transactions currently contemplated pursuant to the Stem Cell Transaction, in each case by the Company do not and will not violate any provisions of (i) any federal or state rule, regulation, statute, or law applicable to the Company or (ii) the terms of any order, writ, or decree of any federal or state court or judicial or regulatory authority or body by which the Company is bound, (iii) the articles of incorporation or bylaws of the Company or (iv) any agreement, instrument or contract to which the Company is a party and which is material to the business of the Company.

(d) Validity of the Shares and Warrants. The Shares, when delivered at a Closing, will be duly authorized and validly issued, fully paid, and nonassessable. The Warrants, when delivered at a Closing, will be the duly authorized and valid obligations of the Company, enforceable in accordance with the terms of the Warrant Agreement. The Warrant Shares, when issued upon exercise of the Warrants, will be duly authorized and validly issued, fully paid, and nonassessable.

(e) Litigation. There is no action, proceeding, or investigation pending which challenges the Company's right to enter into this Agreement, or challenges any action taken or to be taken, by the Company in connection with this Agreement.

(f) Disclosure Documents; Financial Statements. The Company has filed all reports required to be filed by it under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), including pursuant to Section 13(a) or 15(d) thereof (the foregoing materials being collectively referred to herein as the SEC Reports), during the twelve (12) months prior to the date hereof. None of the SEC Reports, when filed, contained any untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading. The financial statements of the Company included in the SEC Reports have been prepared in accordance with United States generally accepted accounting principles ("GAAP") applied on a consistent basis during the periods involved, except as may be otherwise specified in such financial statements or the notes thereto, and fairly present in all material respects the financial position of the Company as of and for the dates thereof and the results of operations and cash flows for the periods then ended, subject, in the case of unaudited statements, to normal, immaterial, year-end audit adjustments.

(g) Absence of Certain Changes. Since December 31, 2011, except as specifically disclosed in SEC Reports, (i) there has not been any material adverse change in the financial condition, assets, liabilities, revenues, or business of the Company and its subsidiaries, taken as a whole, (ii) the Company has not incurred any liabilities (contingent or otherwise) other than (A) trade payables, accrued expenses, licensing fees and similar expenses, and other liabilities incurred in the ordinary course of business consistent with past practice, (B) liabilities not required to be reflected in the Company's financial statements pursuant to GAAP or not required to be disclosed in filings made with the Securities and Exchange Commission, (C) liabilities arising under the Lease and the Company's agreement with BAC and Geron with respect to the Stem Cell Transaction, and (D) liabilities arising under this Agreement, the Warrant Agreement, and the Registration Rights Agreement, (iii) the Company has not altered its method of accounting or the identity of its auditors, and (iv) the Company has not declared or made any dividend or distribution of cash or other property to its stockholders or purchased, redeemed, or made any agreements to purchase or redeem any shares of its capital stock.

(h) Listing and Maintenance Requirements. The Company has not, in the 12 months preceding the date hereof, received notice from the NYSE MKT to the effect that the Company is not in compliance with the listing or maintenance requirements of the NYSE MKT.

(i) Taxes. Since January 1, 2006, the Company has filed when due all federal, state, and local income tax returns, and all other returns with respect to taxes which are required to be filed with the appropriate authorities of the jurisdictions where business is transacted by the Company, or where the Company owns any property, and any taxes due, as reflected on such tax returns, have been paid.

5. Investment Representations. Purchaser represents and warrants to the Company that:

(a) Authority; Enforceability. The Purchaser has the corporate power and authority to execute and deliver, and to perform all of its obligations under, this Agreement. The execution and delivery of this Agreement, and the performance by the Purchaser of its obligations under this Agreement and the Registration Rights Agreement, have been duly authorized by all necessary action on the part of the Board of Directors or similar governing body of the Purchaser. This Agreement and the Registration Rights Agreement are the valid and binding agreements of the Purchaser, enforceable in accordance with their respective terms, except to the extent limited by any bankruptcy, insolvency, or similar law affecting the rights of creditors generally.

(b) No Conflict. The execution and delivery of this Agreement, and consummation of the transactions contemplated hereunder, including the purchase of the Shares and Warrants, by the Purchaser do not and will not violate any provisions of (i) any rule, regulation, statute, or law applicable to the Purchaser or (ii) the terms of any order, writ, or decree of any court or judicial or regulatory authority or body by which the Purchaser is bound, or (iii) the articles of incorporation, bylaws, or similar charter or governing documents of the Purchaser.

(c) Due Diligence. Purchaser has made such investigation of the Company as Purchaser deemed appropriate for determining to acquire (and thereby make an investment in) the Units, including the Shares and Warrants. In making such investigation, Purchaser has had access to such financial and other information concerning the Company as Purchaser requested. Purchaser has received and read copies of the form of Warrant Agreement, including the form of the Warrant, the form of Registration Rights Agreement, the Company's annual report on Form 10-K for the fiscal year ended December 31, 2011, the Company's quarterly reports on Form 10-Q for the fiscal quarters ended March 31, 2012, June 30, 2012, and September 30, 2012, and a copy of each of the Company's Current Reports on Form 8-K filed with the Securities and Exchange Commission after March 14, 2012, and the Company's proxy statement for its 2012 annual meeting of shareholders which together with this Agreement constitute the "Disclosure Documents." Purchaser is relying on the information provided in the Disclosure Documents or otherwise communicated to Purchaser in writing by the Company. Purchaser has not relied on any statement or representations inconsistent with those contained in the Disclosure Documents or otherwise communicated to Purchaser in writing by the Company. Purchaser has had a reasonable opportunity to ask questions of and receive answers from the executive officers of the Company concerning the Company, and to obtain additional information (including all exhibits listed in the Disclosure Documents), to the extent possessed or obtainable by the Company without unreasonable effort or expense, necessary to verify the information in the Disclosure Documents. All such questions have been answered to Purchaser's satisfaction.

(d) Unregistered Offer and Sale. Purchaser understands that the Shares and Warrants are being offered and sold without registration under the Act, or qualification under the California Corporate Securities Law of 1968, or under the laws of any other states of the United States, or the laws of England or the United Kingdom, or any other country, in reliance upon the exemptions from such registration and qualification requirements. Purchaser acknowledges and understands that the availability of the aforesaid exemptions depends in part upon the accuracy of certain of the representations, declarations and warranties made by Purchaser, and the information provided by Purchaser, in this Agreement, Purchaser is making such representations, declarations and warranties, and is providing such information, with the intent that the same may be relied upon by the Company and its officers and directors in determining Purchaser's suitability to acquire the Shares and Warrants. Purchaser understands and acknowledges that no English or United Kingdom or United States federal, state or other agency has reviewed or endorsed the offering of the Shares and Warrants or made any finding or determination as to the fairness of the offering or sale of the Shares and Warrants or the completeness of the information in the Disclosure Documents.

(e) Restrictions on Exercise and Transfer. Purchaser understands that the Shares and Warrants may not be offered, sold, or transferred in any manner, and the Warrants may not be exercised, unless subsequently registered under the Act, or unless there is an exemption from such registration available for such offer, sale or transfer.

(f) Knowledge and Experience. Purchaser (or if Purchaser is not a natural person, the officers and directors making the decision on behalf of Purchaser to purchase the Shares and Warrants) has such knowledge and experience in financial and business matters to enable Purchaser to utilize the information contained in the Disclosure Documents or otherwise made available to Purchaser to evaluate the merits and risks of an investment in the Shares and Warrants and to make an informed investment decision.

(g) Investment Intent. Purchaser is acquiring the Shares and Warrants solely for Purchaser's own account and for investment purposes, and not with a view to, or for sale in connection with, any distribution of the Shares and Warrants other than pursuant to an effective registration statement under the Act or unless there is an exemption from such registration available for such offer, sale or transfer.

(h) Forward Looking Statements. Matters discussed in the Disclosure Documents include matters that may be considered "forward looking" statements within the meaning of Section 27(a) of the Act and Section 21(e) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), which statements Purchaser acknowledges and agrees are not guarantees of future performance and involve a number of risks and uncertainties. Nothing contained in this Section 5(h) shall modify, amend or affect Purchaser's right to rely on the truth, accuracy and completeness of the statements and representations made in the Disclosure Documents or otherwise communicated to Purchaser in writing by the Company or on the Company's representations and warranties contained in this Agreement.

(i) Receipt of Contracts. Purchaser has been provided with a copy of the Lease.

(j) No Assurance of Return on Investment. It has never been represented, guaranteed or warranted to Purchaser by BioTime or any officer, director, employee, or agent of BioTime, that Purchaser will realize any specific value, sale price, or profit as a result of acquiring the Shares and Warrants.

6. Stem Cell Transaction.

(a) Purchaser acknowledges receipt of copies of the draft agreements listed on Schedule II, which the Company represents are the most recent drafts as of the date hereof of the proposed agreements between or among the Company, BAC or Geron relating to the Stem Cell Transaction.

(b) Upon completion of the Stem Cell Transaction, BAC, alone or though one or more joint development, joint venture, or similar arrangements, will use the assets acquired from Geron pursuant thereto for research and development of products for commercialization, or will license assets to third parties for such purpose.

7. Resale Restrictions.

(a) Purchaser agrees that it will not sell, offer for sale, or transfer any of their Shares or Warrants unless those Shares or Warrants, as applicable, have been registered under the Act, or unless there is an exemption from such registration and an opinion of counsel reasonably acceptable to the Company has been rendered stating that such offer, sale, or transfer will not violate any United States federal or state securities laws.

(b) The certificates evidencing Shares or Warrants will contain a legend to the effect that transfer is prohibited except pursuant to registration under the Act, or pursuant to an available exemption from registration under the Act.

(c) The Company will refuse to register the transfer, and will issue instructions to the transfer agent and registrar of the Shares and Warrants to refuse to register the transfer, of any Shares or Warrants not made pursuant to registration under the Act or pursuant to an available exemption from registration under the Act.

8. Accredited Investor Qualification. Purchaser qualifies as an “accredited investor” under Regulation D in the following manner. (Please check or initial all that apply to verify that you qualify as an “accredited investor.”)

_____(a) Purchaser is a natural person whose net worth, or joint net worth with spouse, at the date of purchase exceeds $1,000,000 (not including the value of your principal residence and excluding mortgage debt secured by your principal residence up to the estimated fair market value of the home, except that any mortgage debt incurred by you within 60 days prior to the date of this Questionnaire shall not be excluded from the determination of your net worth unless such mortgage debt was incurred to acquire the residence).

_____(b) Purchaser is a natural person whose individual gross income (excluding that of spouse) exceeded $200,000 in each of the past two calendar years, and who reasonably expects individual gross income exceeding $200,000 in the current calendar year.

_____(c) Purchaser is a natural person whose joint gross income with spouse exceeded $300,000 in each of the past two calendar years, and who reasonably expects joint gross income with spouse exceeding $300,000 in the current calendar year.

_____(d) Purchaser is a bank, savings and loan association, broker/dealer, insurance company, investment company, pension plan or other entity defined in Rule 501(a)(1) of Regulation D as promulgated under the Act by the Securities and Exchange Commission.

_____(e) Purchaser is a trust, and the trustee is a bank, savings and loan association, or other institutional investor as defined in Rule 501(a)(1) of Regulation D as promulgated under the Act by the Securities and Exchange Commission.

_____(f) Purchaser is a private business development company as defined in section 202(a)(22) of the Investment Advisers Act of 1940.

_____(g) Purchaser is a trust, and the grantor (i) has the power to revoke the trust at any time and regain title to the trust assets; and (ii) meets the requirements of items (a) (b), or (c) above.

_____(h) Purchaser is a tax-exempt organization described in Section 501(c) (3) of the Internal Revenue Code, or a corporation, Massachusetts or similar business trust, or partnership, not formed for the specific purpose of acquiring Shares and Warrants with total assets in excess of $5,000,000.

_____(i) The Purchaser is a trust with total assets in excess of $5,000,000, not formed for the specific purpose of acquiring Shares and Warrants, whose purchase is directed by a person who has such knowledge and experience in financial and business matters that he is capable of evaluating the merits and risks of an investment in the Shares and Warrants.

ü (j) The Purchaser is an entity in which all of the equity owners meet the requirements of at least one of items (a) through (i) above.

9. Entities. If Purchaser is a corporation, partnership, limited liability company, trust, private limited company, or other entity, Purchaser represents and warrants that: (a) it is authorized and otherwise duly qualified to purchase and hold the Shares and Warrants; (b) it has its principal place of business as set forth in Section 11; and (c) it has not been formed or reorganized for the specific purpose of acquiring Shares and Warrants.

10. Miscellaneous.

(a) Governing Law. This Agreement shall be governed by, interpreted, construed and enforced in accordance with the laws of the State of California, as such laws are applied to contracts by and among residents of California, and which are to be performed wholly within California.

(b) Amendment. Neither this Agreement nor any provisions hereof shall be modified, discharged or terminated except by an instrument in writing signed by the party against whom any waiver, change, discharge or termination is sought.

(c) Notices. Any notice, demand or other communication that any party hereto may be required, or may elect, to give shall be sufficiently given when (i) delivered personally at such address, (ii) delivered to such address by air courier delivery service, or (iii) delivered by electronic mail (email) to such electronic mail address as may be specified under this Agreement. The address for notice to the Company is: BioTime, Inc., 1301 Harbor Bay Parkway, Suite 100, Alameda, California 94502; Attention: Peter S. Garcia, Chief Financial Officer; email: pgarcia@biotimemail.com. The address for notice of Purchaser is shown in Section 11. A party may change its address for notice by giving the other parties notice of a new address in the manner provided in this Agreement.

(d) Counterparts. This Agreement may be executed through the use of separate signature pages or in any number of counterparts, and each of such counterparts shall, for all purposes, constitute one agreement binding on all the parties, notwithstanding that all parties are not signatories to the same counterpart. Counterparts sent by electronic mail, facsimile, or other electronic means, including signatures thereon, shall be deemed originals.

(e) Parties. Except as otherwise provided herein, the Agreement shall be binding upon and inure to the benefit of the parties and their heirs, executors, administrators, successors, legal representatives and assigns.

(f) Entire Agreement. This Agreement contains the entire agreement of the parties with respect to its subject matter, and there are no representations, covenants or other agreements with respect to the subject matter of this Agreement except for those stated or referred to herein.

(g) No Assignment. This Agreement is not transferable or assignable by the undersigned except as may be provided herein.

(h) Delays and Omissions. No delay or omission to exercise any right, power, or remedy accruing to any party to this Agreement, upon any breach or default of any other party under this Agreement, shall impair any such right, power, or remedy of such party, nor shall such delay or omission be construed to be a waiver of, or an acquiescence in, any such breach or default or any similar breach or default thereafter occurring; nor shall any waiver of any single breach or default be deemed a waiver of any other breach or default theretofore or thereafter occurring. Any waiver, permit, consent, or approval of any kind or character on the part of any party of any breach or default under this Agreement, or any waiver on the part of any party of any provisions or conditions of this Agreement, must be made in writing, and shall be effective only to the extent specifically set forth in such writing.

(i) Expenses. Each party shall bear their own expenses incurred on their behalf with respect to this Agreement and to the transactions contemplated by this Agreement.

(j) No Brokers or Finders Fees. The Company and Purchaser warrant to each other that no person is entitled to receive any fee, commission, or other compensation as a broker, finder, or otherwise, in connection with the execution and delivery of this Agreement or the issue and sale of the Units or the Shares and Warrants comprising the Units.

(k) Titles and Subtitles. The titles or headings of the Sections of this Agreement are for convenience of reference only and are not to be considered in construing this Agreement.

(l) Severability. If one or more provisions of this Agreement are held to be unenforceable under applicable law, each such unenforceable provision shall be excluded from this Agreement and the balance of this Agreement shall be interpreted as if each such unenforceable provision were so excluded; the balance of this Agreement as so interpreted shall be enforceable in accordance with its terms.

11. Investor Information.

Name: ROMULUS FILMS LTD

Address: WESSEX HOUSE CHESHAM STREET

LONDON SWIX8ND

email:

Social Security or U.S. Taxpayer Identification Number:

State of Residence or Principal Place of Business: UNITED KINGDOM

Country of Residence if other than United States: UNITED KINGDOM

Information from Corporations, Partnerships, Limited Liability Companies, Trusts, or Other Entity Investors:

Date of Formation: October 12, 1949

Name and title of person authorized to bind the entity: Jonathan C. Woolf, Director

IN WITNESS WHEREOF, the undersigned has entered into this Agreement and hereby agrees to purchase Units for the price stated above and upon the terms and conditions set forth herein. The undersigned hereby agrees to all of the terms of the Warrant Agreement and Registration Rights Agreement and agrees to be bound by the terms and conditions thereof.

Dated: January 4, 2013.

Romulus Films Ltd.

By: */s/ Jonathan C. Woolf*
Jonathan C. Woolf

Title: Director

ACCEPTANCE BY COMPANY

The Company hereby agrees to sell to the Purchaser the Units referenced in this Agreement in reliance upon all the representations, warranties, terms and conditions contained in this Agreement.

IN WITNESS WHEREOF, the undersigned, on behalf of the Company, has executed this acceptance as of the date set forth below.

Dated: January 4, 2013

BIOTIME, INC.

By: */s/ Michael D. West*

Title: Chief Executive Officer

SCHEDULE I

Purchaser	Number of Units Obligated to Purchase	
	First Tranche	Second Tranche
Romulus Films Lrd.	540,000	810,000

SCHEDULE II

List of Stem Cell Transaction Documents

Asset Contribution Agreement

Form of BioTime Warrant Agreement

BioTime Stem Cell Lines License Agreement

Form of Royalty Agreement

Form of Assumption Agreement

Post-Closing CDA

Form of Amended and Restated BAC Certificate of Incorporation

Form of Amended BioTime Articles of Incorporation

Form of Telomerase Exclusive Sublicense Agreement

Exhibit 10.59

STOCK AND WARRANT PURCHASE AGREEMENT

BIOTIME ACQUISITION CORPORATION

2,136,000 Shares of Series B Common Stock
and
350,000 Common Stock Purchase Warrants

Total Purchase Price $5,000,000

READ THIS AGREEMENT CAREFULLY BEFORE YOU INVEST

The shares of Series B Common Stock ("Shares"), and Common Stock Purchase Warrants ("Warrants"), and the common stock issuable upon the exercise of the Warrants ("Warrant Shares") have not been registered under the Securities Act of 1933, as amended, or applicable state securities laws and may not be offered for sale, sold, transferred, pledged or hypothecated to any person, and the Warrants may not be exercised, in the absence of an effective registration statement covering such securities (or an exemption from such registration) and an opinion of counsel satisfactory to BioTime Acquisition Corporation to the effect that such transfer complies with applicable securities laws.

PURCHASE AGREEMENT

This Agreement is entered into by Romulus Films Ltd. ("Purchaser") and BioTime Acquisition Corporation, a Delaware corporation (the "Company).

1. Purchase and Sale of Shares and Warrants.

(a) Purchaser hereby irrevocably agrees to purchase, and the Company hereby irrevocably agrees to sell to Purchaser 2,136,000 shares of Series B Common Stock, par value $0.0001 per share ("Shares"), of the Company and warrants to purchase 350,000 shares of Series B Common Stock of the Company ("Warrants"). The Warrants will entitle the holder to purchase, on the terms and conditions set forth in the Warrant Agreement governing the Warrant, shares of Series B Common Stock, par value $0.0001 of the Company ("Warrant Shares") for $5.00 per Warrant Share (the "Warrant Price"), subject to adjustment as provided in the Warrant Agreement a copy of which is attached as Exhibit A (the "Warrant Agreement").

(b) No fractional Shares or fractional Warrants shall be issued. If the sale of the Shares and Warrants would result in the issuance of a fractional Share or fractional Warrant, the fractional portion of the Share or Warrant shall be disregarded and there shall be no reduction in the purchase price of the Shares and Warrants or cash payment in lieu of the disregarded fractional Share or fractional Warrant.

2. Closing. The consummation of the sale of the Shares and Warrants ("Closing") will take place concurrently with the closing of the "Stem Cell Transaction." The Stem Cell Transaction means a transaction among the Company, BioTime, Inc. ("BioTime"), and Geron Corp. ("Geron") pursuant to which Geron and BioTime will contribute certain assets to the Company in exchange for shares of Company common stock, and in the case of the BioTime, warrants of the same tenor as the Warrants being purchased by Purchaser under this Agreement, as set forth in an Asset Contribution Agreement among the Company, BioTime and Geron.

(a) The Company shall give Purchaser not less than five (5) business days prior notice of the date on which the Closing will take place ("Closing Date"). On the Closing Date, Purchaser shall purchase all 2,136,000 Shares and 350,000 Warrants and shall pay to the Company, by wire transfer to an account designated by the Company, the full purchase price of such Shares and Warrants. On the Closing Date, the Company will issue to the Purchaser the Shares and Warrants purchased.

(b) The issue of the Shares purchased may be, at the election of the Company, by book entry of such Shares purchased, in the name of the Purchaser, on the records of the transfer agent of the Shares or by a stock certificate in the name of the Purchaser for the number of Shares purchased. Warrants purchased shall be delivered to the Purchaser upon the Closing Date, along with a copy of the Warrant Agreement governing the Warrants executed by the Company.

(c) The Closing of the sale of the Shares and Warrants shall be subject to the following conditions:

(i) The representations and warranties of the Company contained in this Agreement shall be true and correct in all material respects on the date of the Closing, and the Company shall have complied in all material respects with its covenants required to have been performed as of the date of Closing;

(ii) No event shall have occurred that has had, or is reasonably expected to have, a Material Adverse Effect;

(iii) No litigation or other proceeding of any kind to enjoin, delay, prohibit or restrict the consummation of the sale of the Shares and Warrants under this Agreement, or the Stem Cell Transaction shall be pending, and there shall be no judgment, order or writ of any court or government authority in effect prohibiting or restricting the consummation of the of the sale of the Shares and Warrants under this Agreement, or consummation of the Stem Cell Transaction by any party;

(iv) The Asset Contribution Agreement shall not have been amended in any material respect from the date of its execution by the parties thereto, and neither BAC nor BioTime shall have waived any material condition to their respective obligations to consummate the Stem Cell Transaction under the Asset Contribution Agreement, except for such amendments or waivers as Purchaser shall have approved in writing; provided, that such approval by Purchaser shall not to be unreasonably withheld or delayed; and

(v) The Stem Cell Transaction shall have closed or shall close concurrently with the Closing.

(d) As used in this Agreement, "Material Adverse Effect" shall mean any change that does, or would be reasonably expected to, have a material adverse effect on the business, operations, financial condition, or assets of the Company on a consolidated basis, provided, however, that none of the following shall be deemed either alone or in combination to constitute, and none of the following shall be taken into account in determining whether there has been or would be, a Material Adverse Effect: (a) any adverse effect resulting from or arising out of the announcement, pendency, or consummation of the transactions contemplated by this Agreement or the Stem Cell Transaction; (b) any adverse effect resulting from or arising out of general economic conditions; (c) any adverse effect resulting from or arising out of general conditions in the industries in which the Company or Geron operates; (d) any adverse effect resulting from or arising out of any natural disaster or any acts of terrorism, sabotage, military action or war or any escalation or worsening thereof; and (e) any adverse effect resulting from or arising out of any changes in any law, statute, rule or regulation, or the judicial or administrative interpretation thereof, or any change in generally accepted accounting principles.

3. Registration Rights. Concurrently with the execution and delivery of this Agreement, Purchaser and the Company shall enter into a Registration Rights Agreement in the form of Exhibit B, pursuant to which the Company is agreeing to register the Shares, the Warrants and the Warrant Shares under the Securities Act of 1933, as amended (the "Act").

4. Representations and Warranties of the Company. The Company makes the following representations and warranties for the benefit and reliance of Purchaser. The following representations and warranties are true and correct on the date of this Agreement and as of the Closing Date, and are qualified accordingly.

(a) Organization. The Company is a corporation duly organized, validly existing and in good standing under the laws of the state of Delaware, with the requisite power and authority to own and use its properties and assets and to carry on its business as currently conducted. The Company is duly qualified to conduct business and is in good standing as a foreign corporation in California and in each other jurisdiction in which the nature of the business conducted or property owned by it makes such qualification necessary, except where the failure to so qualify would not have a material adverse effect on its business.

(b) Authority; Enforceability. The Company has the corporate power and authority (i) to execute and deliver, and to perform all of its obligations under, this Agreement, the Warrant Agreement, and the Registration Rights Agreement, and (ii) to execute and deliver, and to perform all of its obligations under, the agreements to which it currently is contemplated the Company will be a party in consummation of the Stem Cell Transaction. The execution and delivery of this Agreement, the Warrant Agreement, and the Registration Rights Agreement and the performance by the Company of its obligations under this Agreement, the Warrant Agreement, and the Registration Rights Agreement have been duly authorized by all necessary action on the part of the Board of Directors of the Company. This Agreement, the Warrant Agreement and the Registration Rights Agreement are the valid and binding agreements of the Company, enforceable in accordance with their respective terms, except to the extent limited by any bankruptcy, insolvency, or similar law affecting the rights of creditors generally.

(c) No Conflict. The execution and delivery of this Agreement, the Warrant Agreement, and the Registration Rights Agreement, the consummation of the transactions contemplated hereunder and thereunder, and the consummation of the transactions currently contemplated pursuant to the Stem Cell Transaction, in each case by the Company do not and will not violate any provisions of (i) any federal or state rule, regulation, statute, or law applicable to the Company or (ii) the terms of any order, writ, or decree of any federal or state court or judicial or regulatory authority or body by which the Company is bound, (iii) the certificate of incorporation or bylaws of the Company or (iv) any agreement, instrument or contract to which the Company is a party and which is material to the business of the Company.

(d) Validity of the Shares and Warrants. The Shares, when delivered at Closing, will be duly authorized and validly issued, fully paid, and nonassessable. The Warrants, when delivered at Closing, will be the duly authorized and valid obligations of the Company, enforceable in accordance with the terms of the Warrant Agreement. The Warrant Shares, when issued upon exercise of the Warrants, will be duly authorized and validly issued, fully paid, and nonassessable.

(e) Litigation. There is no action, proceeding, or investigation pending which challenges the Company's right to enter into this Agreement, or challenges any action taken or to be taken, by the Company in connection with this Agreement.

(f) Taxes. Since the date of its incorporation, the Company has filed when due all federal, state, and local income tax returns, and all other returns with respect to taxes which are required to be filed with the appropriate authorities of the jurisdictions where business is transacted by the Company, or where the Company owns any property, and any taxes due, as reflected on such tax returns, have been paid.

(g) Capitalization. As of the date of this Agreement, the authorized shares of capital stock of BAC consist of 2,000,000 shares of common stock of which 1,000,000 shares have been designated Series A Common Stock and 1,000,000 have been designated Series B Common Stock. As of the date of this Agreement, and immediately prior to the Closing there will be: (i) 51,700 shares of Series B Common Stock issued and outstanding, (ii) no shares of common stock in the treasury and (iii) no shares of preferred stock issued or outstanding. Upon the Closing, there shall be: (i) 30,498,819 shares of Company common stock issued and outstanding (including the Shares issued pursuant to this Agreement), 6,537,779 of which shall be designated Series A Common Stock and 23,961,040 of which (including the Shares issued pursuant to this Agreement) shall be designated Series B Common Stock; (ii) no shares of Company common stock in the treasury; (iii) no shares of preferred stock issued or outstanding, and 3,500,000 Warrants to purchase Series B Common Stock. At or prior to Closing the authorized capital of BAC shall be 75,000,000 shares of Series A Common Stock, 75,000,000 shares of Series B Common Stock, and 5,000,000 shares of Preferred Stock. The Company has no subsidiaries. Except for the issuances of the Series A Common Stock to Geron, and the issuance of Series B Common Stock and warrants to purchase Series B Common Stock to BioTime, in each case, pursuant to the Asset Contribution Agreement for the Stem Cell Transaction, and the Shares and Warrants to be issued pursuant to this Agreement, there are no, and at the Closing there shall be no, issued or outstanding shares or other equity securities of the Company (or shares or other equity securities of the Company reserved for issuance), and there are no and at the Closing there shall be no, securities of the Company convertible into or exchangeable for stock or other equity securities of the Company, or other subscriptions, options, warrants, conversion rights, stock appreciation rights, "phantom" stock, stock units, calls, claims, rights of first refusal, rights (including preemptive rights), commitments, arrangements or agreements to which the Company is a party or by which it is bound in any case obligating the Company to issue, deliver, sell, purchase, redeem, acquire or vote, or cause to be issued, delivered, sold, purchased, redeemed, acquired or voted, stock or other equity securities of the Company, or obligating the Company to grant, extend or enter into any subscription, option, warrant, conversion right, stock appreciation right, call, right, commitment, arrangement or agreement to issue, deliver, sell, purchase, redeem, acquire or vote stock or equity securities of the Company.

5. Investment Representations. Purchaser represents and warrants to the Company that:

(a) Authority; Enforceability. The Purchaser has the corporate power and authority to execute and deliver, and to perform all of its obligations under, this Agreement and the Registration Rights Agreement. The execution and delivery of this Agreement and the Registration Rights Agreement, and the performance by the Purchaser of its obligations under this Agreement and the Registration Rights Agreement, have been duly authorized by all necessary action on the part of the Board of Directors or similar governing body of the Purchaser. This Agreement and the Registration Rights Agreement are the valid and binding agreements of the Purchaser, enforceable in accordance with their respective terms, except to the extent limited by any bankruptcy, insolvency, or similar law affecting the rights of creditors generally.

(b) No Conflict. The execution and delivery of this Agreement and the Registration Rights Agreement, and consummation of the transactions contemplated under this Agreement and under the Registration Rights Agreement, including the purchase of the Shares and Warrants, by the Purchaser do not and will not violate any provisions of (i) any rule, regulation, statute, or law applicable to the Purchaser or (ii) the terms of any order, writ, or decree of any court or judicial or regulatory authority or body by which the Purchaser is bound, or (iii) the articles of incorporation, bylaws, or similar charter or governing documents of the Purchaser.

(c) Due Diligence. Purchaser has made such investigation of the Company as Purchaser deemed appropriate for determining to acquire (and thereby make an investment in) the Shares and Warrants. In making such investigation, Purchaser has had access to such financial and other information concerning the Company as Purchaser requested. Purchaser has received and read copies of the form of Warrant Agreement, including the form of the Warrant, the form of Registration Rights Agreement, the draft documents listed on Schedule I related to the Stem Cell Transaction, the Certificate of Incorporation of the Company and an Amended and Restated Certificate of Incorporation of the Company that will become effective in connection with the Stem Cell Transaction, and the Bylaws of the Company, which together with this Agreement constitute the "Disclosure Documents." Purchaser is relying on the information provided in the Disclosure Documents or otherwise communicated to Purchaser in writing by the Company. Purchaser has not relied on any statement or representations inconsistent with those contained in the Disclosure Documents or otherwise communicated to Purchaser in writing by the Company. Purchaser has had a reasonable opportunity to ask questions of and receive answers from the executive officers of the Company concerning the Company, and to obtain additional information (including all exhibits listed in the Disclosure Documents), to the extent possessed or obtainable by the Company without unreasonable effort or expense, necessary to verify the information in the Disclosure Documents. All such questions have been answered to Purchaser's satisfaction.

(d) Unregistered Offer and Sale. Purchaser understands that the Shares and Warrants are being offered and sold without registration under the Act, or qualification under the California Corporate Securities Law of 1968, or under the laws of any other states of the United States, or the laws of England or the United Kingdom, or any other country, in reliance upon the exemptions from such registration and qualification requirements. Purchaser acknowledges and understands that the availability of the aforesaid exemptions depends in part upon the accuracy of certain of the representations, declarations and warranties made by Purchaser, and the information provided by Purchaser, in this Agreement, Purchaser is making such representations, declarations and warranties, and is providing such information, with the intent that the same may be relied upon by the Company and its officers and directors in determining Purchaser's suitability to acquire the Shares and Warrants. Purchaser understands and acknowledges that no English or United Kingdom or United States federal, state or other agency has reviewed or endorsed the offering of the Shares and Warrants or made any finding or determination as to the fairness of the offering or sale of the Shares and Warrants or the completeness of the information in the Disclosure Documents.

(e) Restrictions on Exercise and Transfer. Purchaser understands that the Shares and Warrants may not be offered, sold, or transferred in any manner, and the Warrants may not be exercised, unless subsequently registered under the Act, or unless there is an exemption from such registration available for such offer, sale or transfer.

(f) Knowledge and Experience. Purchaser (or if Purchaser is not a natural person, the officers and directors making the decision on behalf of Purchaser to purchase the Shares and Warrants) has such knowledge and experience in financial and business matters to enable Purchaser to utilize the information contained in the Disclosure Documents or otherwise made available to Purchaser to evaluate the merits and risks of an investment in the Shares and Warrants and to make an informed investment decision.

(g) Investment Intent. Purchaser is acquiring the Shares and Warrants solely for Purchaser's own account and for investment purposes, and not with a view to, or for sale in connection with, any distribution of the Shares and Warrants other than pursuant to an effective registration statement under the Act or unless there is an exemption from such registration available for such offer, sale or transfer.

(h) Forward Looking Statements. Matters discussed in the Disclosure Documents include matters that may be considered "forward looking" statements within the meaning of Section 27(a) of the Act and Section 21(e) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), which statements Purchaser acknowledges and agrees are not guarantees of future performance and involve a number of risks and uncertainties. Nothing contained in this Section 5(h) shall modify, amend or affect Purchaser's right to rely on the truth, accuracy and completeness of the statements and representations made in the Disclosure Documents or otherwise communicated to Purchaser in writing by the Company or on the Company's representations and warranties contained in this Agreement.

(i) No Assurance of Return on Investment. It has never been represented, guaranteed or warranted to Purchaser by the Company or any officer, director, employee, or agent of the Company, that Purchaser will realize any specific value, sale price, or profit as a result of acquiring the Shares and Warrants.

6. Stem Cell Transaction.

(a) Purchaser acknowledges receipt of copies of the draft agreements listed on Schedule I, which the Company represents are the most recent drafts as of the date hereof of the proposed agreements between or among the Company, BioTime or Geron relating to the Stem Cell Transaction.

(b) Upon completion of the Stem Cell Transaction, the Company alone or though one or more joint development, joint venture, or similar arrangements, will use the assets acquired from Geron pursuant thereto for research and development of products for commercialization, or will license assets to third parties for such purpose.

7. Resale Restrictions.

(a) Purchaser agrees that it will not sell, offer for sale, or transfer any of their Shares or Warrants unless those Shares or Warrants, as applicable, have been registered under the Act, or unless there is an exemption from such registration and an opinion of counsel reasonably acceptable to the Company has been rendered stating that such offer, sale, or transfer will not violate any United States federal or state securities laws.

(b) The certificates evidencing Shares or Warrants will contain a legend to the effect that transfer is prohibited except pursuant to registration under the Act, or pursuant to an available exemption from registration under the Act.

(c) The Company will refuse to register the transfer, and will issue instructions to the transfer agent and registrar of the Shares and Warrants to refuse to register the transfer, of any Shares or Warrants not made pursuant to registration under the Act or pursuant to an available exemption from registration under the Act.

8. Accredited Investor Qualification. Purchaser qualifies as an "accredited investor" under Regulation D in the following manner. (Please check or initial all that apply to verify that you qualify as an "accredited investor.")

_____(a) Purchaser is a natural person whose net worth, or joint net worth with spouse, at the date of purchase exceeds $1,000,000 (not including the value of your principal residence and excluding mortgage debt secured by your principal residence up to the estimated fair market value of the home, except that any mortgage debt incurred by you within 60 days prior to the date of this Questionnaire shall not be excluded from the determination of your net worth unless such mortgage debt was incurred to acquire the residence).

_____(b) Purchaser is a natural person whose individual gross income (excluding that of spouse) exceeded $200,000 in each of the past two calendar years, and who reasonably expects individual gross income exceeding $200,000 in the current calendar year.

_____(c) Purchaser is a natural person whose joint gross income with spouse exceeded $300,000 in each of the past two calendar years, and who reasonably expects joint gross income with spouse exceeding $300,000 in the current calendar year.

_____(d) Purchaser is a bank, savings and loan association, broker/dealer, insurance company, investment company, pension plan or other entity defined in Rule 501(a)(1) of Regulation D as promulgated under the Act by the Securities and Exchange Commission.

_____(e) Purchaser is a trust, and the trustee is a bank, savings and loan association, or other institutional investor as defined in Rule 501(a)(1) of Regulation D as promulgated under the Act by the Securities and Exchange Commission.

_____(f) Purchaser is a private business development company as defined in section 202(a)(22) of the Investment Advisers Act of 1940.

_____(g) Purchaser is a trust, and the grantor (i) has the power to revoke the trust at any time and regain title to the trust assets; and (ii) meets the requirements of items (a) (b), or (c) above.

_____(h) Purchaser is a tax-exempt organization described in Section 501(c) (3) of the Internal Revenue Code, or a corporation, Massachusetts or similar business trust, or partnership, not formed for the specific purpose of acquiring Shares and Warrants with total assets in excess of $5,000,000.

_____(i) The Purchaser is a trust with total assets in excess of $5,000,000, not formed for the specific purpose of acquiring Shares and Warrants, whose purchase is directed by a person who has such knowledge and experience in financial and business matters that he is capable of evaluating the merits and risks of an investment in the Shares and Warrants.

ü (j) The Purchaser is an entity in which all of the equity owners meet the requirements of at least one of items (a) through (i) above.

9. Entities. If Purchaser is a corporation, partnership, limited liability company, trust, private limited company, or other entity, Purchaser represents and warrants that: (a) it is authorized and otherwise duly qualified to purchase and hold the Shares and Warrants; (b) it has its principal place of business as set forth in Section 11; and (c) it has not been formed or reorganized for the specific purpose of acquiring Shares and Warrants.

10. Miscellaneous.

(a) Governing Law. This Agreement shall be governed by, interpreted, construed and enforced in accordance with the laws of the State of Delaware, as such laws are applied to contracts by and among residents of Delaware, and which are to be performed wholly within Delaware.

(b) Amendment. Neither this Agreement nor any provisions hereof shall be modified, discharged or terminated except by an instrument in writing signed by the party against whom any waiver, change, discharge or termination is sought.

(c) Notices. Any notice, demand or other communication that any party hereto may be required, or may elect, to give shall be sufficiently given when (i) delivered personally at such address, (ii) delivered to such address by air courier delivery service, or (iii) delivered by electronic mail (email) to such electronic mail address as may be specified under this Agreement. The address for notice to the Company is: BioTime Acquisition Corporation, 1301 Harbor Bay Parkway, Suite 100, Alameda, California 94502; Attention: Peter S. Garcia, Chief Financial Officer; email: pgarcia@biotimemail.com. The address for notice of Purchaser is shown in Section 11. A party may change its address for notice by giving the other parties notice of a new address in the manner provided in this Agreement.

(d) Counterparts. This Agreement may be executed through the use of separate signature pages or in any number of counterparts, and each of such counterparts shall, for all purposes, constitute one agreement binding on all the parties, notwithstanding that all parties are not signatories to the same counterpart. Counterparts sent by electronic mail, facsimile, or other electronic means, including signatures thereon, shall be deemed originals.

(e) Parties. Except as otherwise provided herein, the Agreement shall be binding upon and inure to the benefit of the parties and their heirs, executors, administrators, successors, legal representatives and assigns.

(f) Entire Agreement. This Agreement contains the entire agreement of the parties with respect to its subject matter, and there are no representations, covenants or other agreements with respect to the subject matter of this Agreement except for those stated or referred to herein.

(g) No Assignment. This Agreement is not transferable or assignable by the undersigned except as may be provided herein.

(h) Delays and Omissions. No delay or omission to exercise any right, power, or remedy accruing to any party to this Agreement, upon any breach or default of any other party under this Agreement, shall impair any such right, power, or remedy of such party, nor shall such delay or omission be construed to be a waiver of, or an acquiescence in, any such breach or default or any similar breach or default thereafter occurring; nor shall any waiver of any single breach or default be deemed a waiver of any other breach or default theretofore or thereafter occurring. Any waiver, permit, consent, or approval of any kind or character on the part of any party of any breach or default under this Agreement, or any waiver on the part of any party of any provisions or conditions of this Agreement, must be made in writing, and shall be effective only to the extent specifically set forth in such writing.

(i) Expenses. Each party shall bear their own expenses incurred on their behalf with respect to this Agreement and to the transactions contemplated by this Agreement.

(j) No Brokers or Finders Fees. The Company and Purchaser warrant to each other that no person is entitled to receive any fee, commission, or other compensation as a broker, finder, or otherwise, in connection with the execution and delivery of this Agreement or the issue and sale of the Shares and Warrants.

(k) Titles and Subtitles. The titles or headings of the Sections of this Agreement are for convenience of reference only and are not to be considered in construing this Agreement.

(l) Severability. If one or more provisions of this Agreement are held to be unenforceable under applicable law, each such unenforceable provision shall be excluded from this Agreement and the balance of this Agreement shall be interpreted as if each such unenforceable provision were so excluded; the balance of this Agreement as so interpreted shall be enforceable in accordance with its terms.

11. Investor Information.

Name: ROMULUS FILMS LTD

Address: WESSEX HOUSE CHESHAM STREET

LONDON SWIX8ND

email:

Social Security or U.S. Taxpayer Identification Number:

State of Residence or Principal Place of Business: UNITED KINGDOM

Country of Residence if other than United States: UNITED KINGDOM

Information from Corporations, Partnerships, Limited Liability Companies, Trusts, or Other Entity Investors:

Date of Formation: October 12, 1949

Name and title of person authorized to bind the entity: Jonathan C. Woolf, Director

IN WITNESS WHEREOF, the undersigned has entered into this Agreement and hereby agrees to purchase Shares and Warrants for the price stated above and upon the terms and conditions set forth herein. The undersigned hereby agrees to all of the terms of the Warrant Agreement and Registration Rights Agreement and agrees to be bound by the terms and conditions thereof.

Dated: January 4, 2013.

Romulus Films Ltd.

By: Jonathan C. Woolf

Title: Director

ACCEPTANCE BY COMPANY

The Company hereby agrees to sell to the Purchaser the Shares and Warrants referenced in this Agreement in reliance upon all the representations, warranties, terms and conditions contained in this Agreement.

IN WITNESS WHEREOF, the undersigned, on behalf of the Company, has executed this acceptance as of the date set forth below.

Dated: January 4, 2013

BIOTIME ACQUISITION CORPORATION

By: Thomas Okarma

Title: Chief Executive Officer

SCHEDULE I

List of Stem Cell Transaction Documents

Asset Contribution Agreement

Form of BioTime Warrant Agreement

BioTime Stem Cell Lines License Agreement

Form of Royalty Agreement

Form of Assumption Agreement

Post-Closing CDA

Form of Amended and Restated BAC Certificate of Incorporation

Form of Amended BioTime Articles of Incorporation

Form of Telomerase Exclusive Sublicense Agreement

Exhibit 10.60

TENANT: BIOTIME

LEASE

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BUSINESS PARK LEASE

THIS LEASE is made this 7 day of January, 2013 (the "Effective Date"), between DAVID D. BOHANNON ORGANIZATION, a California corporation, herein referred to as "Landlord," and BIOTIME, a California corporation, herein referred to as "Tenant".

WITNESSETH:

ARTICLE 1 - Premises and Term

Section 1.1. Landlord hereby leases to Tenant and Tenant hereby leases from Landlord the demised premises (as described in Exhibit "A" and located substantially as shown on Exhibit "B" attached hereto) upon and subject to the terms and provisions of this Lease for a demised term of three (3) years (plus any partial period prior to the commencement of the first full calendar month), commencing one (1) day after Landlord delivers possession of the demised premises to Tenant (in no event later than January 7, 2013) (the "Term Commencement Date"), and ending on the last day of the third (3rd) year (exclusive of such partial period, if any) after such Term Commencement Date.

ARTICLE 2 - Rent

Section 2.1. Tenant covenants and agrees to pay to Landlord without set-off, recoupment, deduction or demand of any nature whatsoever, base rent for each year during the demised term in the amount of Three Hundred Eighty One Thousand Four Hundred Twenty Seven and 20/100 Dollars ($381,427.20) per annum, payable in twelve (12) equal monthly installments of Thirty One Thousand Seven Hundred Eighty Five and 60/100 Dollars ($31,785.60) (subject to increase pursuant to the following paragraph). Base rent shall be paid monthly in advance on the first (1st) day of each calendar month commencing on the Term Commencement Date.

In addition to the above base rent, within fifteen (15) business days after the Effective Date, Tenant shall issue shares of Tenant's common stock to Landlord with an aggregate value at least equal to the amount of Two Hundred Forty Two Thousand Seven Hundred Twenty Six and 40/100 Dollars ($242,726.40) based on the average closing price of Tenant's common shares as reported on the NYSE MKT for the ten (10) trading days immediately prior to the Effective Date pursuant to a stock purchase agreement in form attached hereto as Exhibit "E", and such agreement shall be entered into by the parties on or before the Effective Date herein. In the event Tenant does not file with the Securities and Exchange Commission either (i) a prospectus supplement covering the issuance of the shares to Landlord under Tenant's shelf registration statement, or (ii) a new registration statement, so as to permit a non-underwritten public offering and resale of the shares by Landlord pursuant to the stock purchase agreement, within one hundred twenty (120) days after the Closing Date of the stock purchase agreement (i.e., 120 days plus 15 business days after the Effective Date herein), then Landlord may elect to return the BioTime shares to BioTime, whereupon the base rent payable by Tenant pursuant to this Section 2.1 shall instead be the amount of Four Hundred Sixty Two Thousand Three Hundred Thirty Six Dollars ($462,336.00) per annum, payable in twelve (12) equal monthly installments of Thirty Eight Thousand Five Hundred Twenty Eight Dollars ($38,528.00), and Tenant shall pay Landlord such increased base rent for the three year demised term of this Lease. Landlord shall make such election by delivering to Tenant written notice accompanied by the certificate(s) evidencing the BioTime common shares which were previously issued to Landlord, duly endorsed by Landlord for transfer to Tenant. Within ten (10) days after receipt of such written notice and stock certificate(s) so endorsed for transfer, Tenant shall pay to Landlord an amount of cash equal to the excess of the new monthly base rent of $38,528.00 over the monthly base rent of $31,785.60 paid or due to be paid for each calendar month from the Term Commencement Date through the first day of the calendar month in which such payment is made and Tenant shall thereafter pay the new monthly base rent.

Section 2.2. For the purpose of this Lease, a year shall be twelve (12) calendar months, commencing with the first day of the first full calendar month of the demised term and the succeeding anniversaries thereof. For any period prior to the commencement of the first year or subsequent to the end of the last year of the demised term, rent shall be prorated on the basis of the rental rate then payable.

Section 2.3. All sums payable and all statements deliverable to Landlord by Tenant under this Lease shall be paid and delivered at Sixty 31st Avenue, San Mateo, California 94403-3497, or at such other place as Landlord may from time to time direct by notice to Tenant and all such sums shall be paid in lawful money of the United States.

Section 2.4. Upon execution of this Lease, Tenant shall pay to the Landlord the following:

(A) Thirty One Thousand Seven Hundred Eighty Five and 60/100 Dollars ($31,785.60) which shall be applied by Landlord to the first base rent to become due and payable under this Lease, and

(B) Thirty One Thousand Seven Hundred Eighty Five and 60/100 Dollars ($31,785.60) (which shall be increased to $38,528.00 if the base rent increases pursuant to Section 2.1 above, payable by Tenant along with any unpaid base rent pursuant to the provisions of Section 2.1 above) which shall be held as a Security Deposit pursuant to the terms of Section 19.9.

Section 2.5. In addition to base rent under Section 2.1., all other payments to be made under this Lease by Tenant to Landlord shall be deemed to be and shall become additional rent hereunder, whether or not the same to be designated as such, and shall be included in the term "rent" wherever used in this Lease; and, unless another time shall be expressly provided for the payment thereof, all rent and additional rent shall be due and payable together with the next succeeding installment of base rent; and Landlord shall have the same remedies for failure to pay the same as for a nonpayment of base rent.

Section 2.6. Any amount due from Tenant to Landlord that is not paid when due shall bear interest at the highest rate then permitted to be charged on late payments under leases under California law; provided, however, the payment of any such interest shall not excuse or cure the default upon which such interest accrued. Tenant acknowledges and agrees that payment of such interest on late payments is reasonable compensation to Landlord for the additional costs incurred by Landlord caused by such late payment, including, but not limited to, collection and administration expenses and the loss of the use of the money that was late in payment.

ARTICLE 3 - Landlord's Work - Tenant's Work

Section 3.1. Landlord shall not be required to perform any work in the demised premises; and Tenant accepts the demised premises in an "as is" condition.

Section 3.2. Any work to be performed in the demised premises shall be performed at the sole cost of Tenant in accordance with detailed plans and specifications therefor which must be approved, in writing, by Landlord or Landlord's architect before work is commenced. Within ten (10) days following Tenant's completion thereof, Tenant shall furnish Landlord with a complete set of the final "For Construction" plans therefor in AutoCAD format, including all x-refs, fonts and plot files.

ARTICLE 4 - Streets

Section 4.1. Tenant agrees to require employees, and to direct customers and other persons visiting Tenant, to park in the parking area provided in the Parking and Accommodation Areas and to allow Landlord to post the streets for no parking.

ARTICLE 5 - Utility Services

Section 5.1. Landlord has at its own cost and expense secured the installation of water, gas, sanitary sewers and electrical services to the demised premises and made all necessary connections thereof to the building. Tenant shall pay all meter or service charges made by public utilities companies and shall pay for the water, gas and/or electricity used on the demised premises and sewer use fees and charges whether ad valorum or not and any so called "sewer connection charges" based on increased wastewater discharge from the demised premises exclusively. Tenant shall maintain such connections of utilities to the demised premises and the building.

Section 5.2. Landlord shall not be liable to Tenant for the failure of any utility services.

ARTICLE 6 - Assignment - Change of Ownership

Section 6.1.

A. Except as otherwise provided herein (including Section 6.1.E below), Tenant shall not, by operation of law or otherwise, transfer, assign, sublet, enter into license or concession agreements, change ownership, mortgage or hypothecate this Lease or the Tenant's interest in and to the demised premises without first procuring the written consent of Landlord. Any attempted transfer, assignment, subletting, license or concession agreement, change of ownership, mortgage or hypothecation without Landlord's written consent shall be void and confer no rights upon any third person. Landlord's consent to a proposed assignment or sublease shall not be unreasonably withheld provided that the proposed assignee or sublessee shall have: (i) a net worth, at the time of the assignment or sublease, determined in accordance with good accounting principles, equal to or in excess of the net worth of Tenant at the date of the Lease; (ii) been active in its current business for a minimum of three (3) years immediately prior to the assignment or sublease; and (iii) a good reputation in the business community; provided further that Tenant shall give Landlord not less than sixty (60) days notice prior to the effective date of any such assignment or sublease, and Landlord shall have the option to terminate this Lease with respect to the space to be assigned or subleased by notice to Tenant given within thirty (30) days of Landlord's receipt of Tenant's notice. Nothing herein contained shall relieve Tenant and any Guarantor from its covenants and obligations for the demised term. Tenant agrees to reimburse Landlord for Landlord's reasonable outside attorneys' fees incurred in conjunction with the processing and documentation of any such requested transfer, assignment, subletting, licensing or concession agreement, change of ownership, mortgage or hypothecation of this Lease or Tenant's interest in and to the demised premises. If Landlord consents to any assignment or sublease pursuant to this Article, Tenant shall pay Landlord, as additional rent:

(a) in the case of each and every assignment, an amount equal to ALL monies, property, and other consideration of every kind whatsoever paid or payable to Tenant by the assignee for such assignment and for all property of Tenant transferred to the assignee as part of the transaction (including, but not limited to, fixtures, other leasehold improvements, furniture, equipment, and furnishings); and

(b) in the case of each and every sublease, ALL rent, and/or other monies, property, and consideration of every kind whatsoever paid or payable to Tenant by the subtenant under the sublease, LESS all base rent and additional rent under this Lease accruing during the term of the sublease in respect of the subleased space (as reasonably determined by Landlord, taking into account the useable area of the premises demised under the sublease).

B. Each transfer, assignment, subletting, license, concession agreement, mortgage and hypothecation to which there has been consent shall be by an instrument in writing in form satisfactory to Landlord, and shall be executed by the transferor, assignor, sublessor, licensor, concessionaire, hypothecator or mortgagor and the transferee, assignee, sublessee, licensee, concessionaire or mortgagee in each instance, as the case may be; and each transferee, assignee, sublessee, licensee, concessionaire or mortgagee shall agree in writing for the benefit of Landlord herein to assume, to be bound by, and to perform the terms, covenants and conditions of this Lease to be done, kept and performed by Tenant, including the payment of all amounts due or to become due under this Lease directly to Landlord. One (1) executed copy of such written instrument shall be delivered to Landlord. Failure to first obtain in writing Landlord's consent or failure to comply with the provisions of this Article shall operate to prevent any such transfer, assignment, subletting, license, concession agreement, mortgage, or hypothecation from becoming effective.

C. If Tenant hereunder is a corporation which does not have a class of equity securities registered under Section 12 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or does not otherwise file periodic reports under Section 13 of the Exchange Act, or is an unincorporated association or partnership, the transfer, assignment or hypothecation of any stock or interest in such corporation, association or partnership in the aggregate in excess of twenty-five percent (25%) shall be deemed an assignment within the meaning and provisions of this Section 6.1.

D. The consent of Landlord to any transfer, assignment, sublease, license or concession agreement, change in ownership, mortgage or hypothecation of this Lease is not and shall not operate as a consent to any future or further transfer, assignment, sublease, license or concession agreement, change in ownership, mortgage or hypothecation, and Landlord specifically reserves the right to refuse to grant any such consents except as otherwise provided in this Section 6.1.

E. Notwithstanding any other provision of this Lease to the contrary, Tenant may, without the consent of or notice to Landlord, sublease the demised premises or any part thereof, or may share the use of the demised premises in whole or in part, with one or more of Tenant's Affiliates, provided such Affiliates comply with all of the provisions of this Lease (other than the covenant to pay rent). As used herein, "Affiliate" means any corporation, limited liability company, partnership, or other business entity which is controlled by, in control of, or under common control with Tenant. In addition, Tenant may, without the consent of Landlord, assign this Lease to BioTime Acquisition Corporation ("BAC") at any time after one of the following events has occurred: (a) BAC has obtained at least Ten Million Dollars ($10,000,000) in equity capital through the sale of capital stock for cash, or (b) BAC has a class of capital stock registered under Section 12 of the Exchange Act; provided that BAC shall agree in writing, in form reasonably satisfactory to Landlord, to assume, to be bound by, and to perform the terms, covenants and conditions of this Lease to be done, kept and performed by Tenant, including the payment of all amounts due or to become due under this Lease directly to Landlord, without any modification of this Lease. Tenant shall provide Landlord with the following no later than ten (10) days prior to the effective date of the proposed assignment: (i) evidence of the satisfaction of the conditions to the assignment stated hereinabove as reasonably determined by Landlord, and (ii) a copy of the proposed assignment agreement. The provisions of Section 6.1.B shall apply to such assignment. Nothing herein contained shall be construed as releasing Tenant from any of its liabilities or other obligations hereunder, including the payment of rent, (1) at any time during the demised term of this Lease with respect to an assignment of the Lease or sublease of the demised premises to an Affiliate (except BAC), and (2) for the period from the Effective Date through the effective date of the assignment to BAC, with respect to an assignment of the Lease to BAC.

Section 6.2. Landlord's rights to assign this Lease are and shall remain unqualified. Upon any sale of the demised premises and provided the purchaser assumes all obligations under this Lease, Landlord shall thereupon be entirely released of all obligations of Landlord hereunder and shall not be subject to any liability resulting from any act or omission or event occurring after such sale.

ARTICLE 7 - Tenant's Additional Agreements

Section 7.1. Tenant agrees at all times during the demised term to: (A) Keep the demised premises in a neat and clean condition. (B) Promptly remove all waste, garbage or refuse from the demised premises. (C) Promptly comply with all laws and ordinances and all rules and regulations of duly constituted governmental authorities affecting the demised premises, and the cleanliness, safety, use and occupation thereof, but this clause (C) shall not be construed to require Tenant to comply with any such laws, ordinances, rules or regulations which require structural changes in the demised premises unless the same are made necessary by act or work performed by Tenant or the nature of Tenant's business. (D) Prevent the escape from the demised premises of all fumes, odors and other substances which are offensive or may constitute a nuisance or interfere with other tenants.

Section 7.2. Tenant agrees that it will not at any time during the demised term without first obtaining the Landlord's written consent: (A) Conduct or permit any fire, bankruptcy or auction sale in the demised premises. (B) Place on the exterior walls (including both interior and exterior surfaces of windows and doors), the roof of any buildings or any other part of the demised premises, any sign, symbol, advertisement, neon light, other light or other object or thing visible to public view outside of the demised premises. (C) Change the exterior color of the building on the demised premises, or any part thereof, or the color, size, location or composition of any sign, symbol or advertisement that may have been approved by Landlord. (D) Park, operate, load or unload, any truck or other delivery vehicle on any place other than the loading area designated for Tenant's use. (E) Use the plumbing facilities for any purpose other than that for which they were constructed or dispose of any foreign substance therein. (F) Install any exterior lighting or plumbing facilities, shades or awnings, amplifiers or similar devices, or use any advertising medium which may be heard or experienced outside the demised premises, such as loudspeakers, phonographs, or radio broadcasts. (G) Deface any portion of the building or improvements on the demised premises, normal usage excepted. In the event any portion of the building is defaced or damaged, Tenant agrees to repair such damage. (H) Permit any rubbish or garbage to accumulate on the demised premises, or any part thereof, unless confined in metal containers so located as not to be visible to members of the public. (I) Install, maintain or operate any sign except as approved in writing by Landlord. (J) Store materials, supplies, equipment, finished products, raw materials or articles of any nature outside of the demised premises. (K) Use the demised premises for retail, commercial or residential purposes. (L) Use, store, generate or dispose of any "hazardous material", "hazardous substance" or "hazardous waste" as those terms are defined from time to time under applicable laws and regulations, except in compliance with applicable federal and state laws, but subject to Section 7.4 below.

Section 7.3. Tenant agrees that it will not at any time during the demised term: (A) Perform any act or carry on any practice which may injure the demised premises. (B) Burn anything in or about the demised premises. (C) Keep or display any merchandise or other object on or otherwise obstruct any sidewalks, walkways or areaways. (D) Use or permit the use of any portion of the demised premises as living quarters, sleeping apartments, lodging rooms, or for any unlawful purpose. (E) Use or permit the demised premises to be used for any purpose which is or shall not then be allowed under the Zoning Ordinance of the City of Menlo Park, California, in that area.

Section 7.4. Tenant shall, at its expense, comply with all applicable laws, regulations, rules and orders, regardless of when they become or became effective, including, without limitation, those relating to health, safety, noise, environmental protection, waste disposal, and water and air quality, and furnish satisfactory evidence of such compliance upon request of Landlord.

Should any discharge, leakage, spillage, emission or pollution of any type occur upon or from the demised premises due to Tenant's use and occupancy thereof, Tenant, at its expense, shall be obligated to remedy the same to the satisfaction of Landlord and any governmental body having jurisdiction thereover. Tenant agrees to indemnify, hold harmless, and defend Landlord against all liability, cost, and expense (including without limitation any fines, penalties, judgments, litigation costs, and attorneys' fees) incurred by Landlord as a result of Tenant's breach of this section, or as a result of any such discharge, leakage, spillage, emission, or pollution, regardless of whether such liability, cost, or expense arises during or after the demised term, unless such liability, cost or expense is proximately caused solely by the active negligence of Landlord.

Tenant shall pay all amounts due Landlord under this section, as additional rent, within ten (10) days after any such amounts become due.

Tenant shall, at least thirty (30) days prior to the termination of the demised term, or any earlier termination of this Lease, submit a plan to the Menlo Park Fire Protection District in accordance with applicable provisions of the Uniform Fire Code, with a copy to Landlord, demonstrating how any hazardous materials which were stored, dispensed, handled or used in, at or upon the demised premises will be transported, disposed of or reused at the expiration or sooner termination of the demised term of this Lease; and Tenant shall, at the expiration or sooner termination of the demised term, comply with all applicable laws, regulations, rules and orders of any governmental body having jurisdiction thereover (including without limitation the Menlo Park Fire Protection District) regarding the disposal of any such hazardous materials.

Tenant’s obligations under this Section 7.4. shall survive the expiration or earlier termination of this Lease, including without limitation any termination resulting from any default by Tenant under the Lease.

ARTICLE 8 - Use of Premises

Section 8.1. Tenant shall use the demised premises solely for general office, biomedical research and development and related product production, and for no other purposes without Landlord's written consent.

Section 8.2. Tenant covenants and agrees that it will not knowingly use or permit to be used the demised premises or any part thereof for any unlawful purpose whatsoever. Tenant shall obtain and maintain all governmental licenses and permits required for the lawful and proper conducting of Tenant's business in the demised premises.

ARTICLE 9 - Indemnity and Public Liability Insurance

Section 9.1. Tenant agrees to indemnify and save harmless Landlord from and against all claims arising from any act, omission or negligence of Tenant, or its contractors, licensees, agents, servants, invitees or employees, or arising from any accident, injury or damage whatsoever caused to any person, or to the property of any person occurring during the demised term in or about the demised premises, the sidewalks (if any) adjoining the same and from and against all costs, expenses and liabilities incurred in or in connection with any such claim or proceeding brought thereon, including, but not limited to, reasonable attorneys' fees and court costs.

Section 9.2. Tenant agrees to maintain in full force during the demised term a policy of public liability and property damage insurance under which Landlord (and such other persons, firms or corporations as are designated by Landlord and are properly includible as additional insureds under the terms of any such policies of insurance) and Tenant are named as insureds, and the insurer agrees to indemnify and hold Landlord and Landlord's said designees harmless from and against all cost, expense and/or liability arising out of or based upon any and all claims, accidents, injuries and damage mentioned in Section 9.1. All public liability and property damage policies shall contain a provision that Landlord, although named as an insured, shall nevertheless be entitled to recovery under said policies for any loss occasioned to it, its servants, agents and employees, by reason of the negligence of Tenant. Each such policy shall be approved as to form and insurance company by Landlord, such approval not to be unreasonably withheld, be noncancelable with respect to the Landlord and Landlord's said designees without twenty (20) days' written notice to the Landlord and Landlord's said designees, and a duplicate original or certificate thereof shall be delivered to Landlord prior to commencement of the demised term and thereafter thirty (30) days prior to expiration of the term of each policy. The limits of liability of such comprehensive general liability insurance shall be Two Million Dollars ($2,000,000.00) for injury or death to one or more persons and damage to property, combined single limit. All public liability, property damage and other casualty policies shall be written as primary policies, not contributing with and not in excess of coverage which Landlord may carry. Notwithstanding anything contained herein to the contrary, all insurance carried by Tenant shall be issued by responsible insurance companies licensed to do business in the State of California with an A.M. Best Company rating of A- VIII or better.

If Tenant shall not comply with its covenants to maintain insurance made above, or if Tenant fails to provide duplicate originals or certificates thereof to Landlord as is provided above, Landlord may, but shall not be required to, obtain any such insurance; and if Landlord does obtain any such insurance, Tenant shall, on demand, reimburse Landlord for the premium for any such insurance.

Section 9.3. Tenant agrees to use and occupy the demised premises, the Parking and Accommodation Areas and to use all other portions of the Business Park (which it is herein given the right to use) at its own risk and hereby releases to the full extent permitted by law the Landlord, and its agents, servants, contractors, and employees, from all claims and demands of every kind resulting from any accident, damage or injury occurring therein. Landlord shall have no responsibility or liability for any loss of or damage to fixtures or other personal property of Tenant. The provisions of this Section shall apply during the whole of the demised term.

ARTICLE 10 - Fire Insurance and Casualty

Section 10.1. If the building on the demised premises should be damaged or destroyed during the demised term by any casualty insurable under Landlord's standard fire and extended coverage insurance policies, Landlord shall (except as hereinafter provided) repair and/or rebuild the same to substantially the condition in which the same existed immediately prior to such damage or destruction. Landlord's obligation under this Section shall in no event exceed either (A) the scope of the work done by Landlord in the original construction of such building, or (B) the proceeds of any such insurance policy if Landlord keeps the building and the demised premises insured against loss or damage by such fire and extended coverage insurance to the extent of at least eighty percent (80%) of the insurable value of the building if reasonably obtainable from responsible insurance companies licensed to do business in California, unless Landlord nevertheless elects to repair and/or rebuild the building and the demised premises. Tenant shall in the event of any such damage or destruction, unless this Lease shall be terminated as hereinafter provided, be responsible for replacing or repairing all exterior signs, trade fixtures, equipment, display cases, and other installations originally installed by the Tenant. Tenant shall have no interest in the proceeds of any insurance carried by Landlord.

Section 10.2. Tenant's base rent shall be abated proportionately during any period in which, by reason of any such damage or destruction, the building is rendered partially or totally untenantable. Such abatement shall continue for the period commencing with such destruction or damage and ending with the substantial completion by the Landlord of such work or repair and/or reconstruction as Landlord is obligated to do.

Section 10.3. If the building on the demised premises should be damaged or destroyed to the extent of 33-1/3% or more of the then monetary value thereof by an event described in Section 10.1., then Landlord may terminate this Lease by written notice to Tenant.

If Landlord does not elect to terminate this Lease then Landlord shall repair and/or rebuild the same as provided in Section 10.1. If such damage or destruction occurs and this Lease is not so terminated, this Lease shall remain in full force and effect and the parties waive the provisions of any law to the contrary. The Landlord's obligation under this Section shall in no event exceed the scope of the work to be done by the Landlord in the original construction of said building and the demised premises.

Section 10.4. Tenant agrees to comply with all of the regulations and rules of the Insurance Service Office or any similar body and will not do, suffer, or permit an act to be done in or about the demised premises which will increase any insurance rate with respect thereto.

Section 10.5. Tenant agrees, in addition to any rent provided for herein, to pay to the Landlord the cost of the fire and extended coverage insurance policy carried by Landlord on the demised premises during the entire demised term or any renewal or extension thereof. This Section expressly permits the Landlord to carry standard fire and extended coverage policies to the extent of one hundred percent (100%) of the insurable value.

Section 10.6. During the demised term, Tenant shall carry, at its expense, insurance against loss and damage by fire including “Special Perils” provisions for the full insurable value of Tenant's merchandise and personal property, including wall coverings, carpeting and drapes, and the trade fixtures, furnishings and operating equipment in the demised premises, whether supplied by Tenant or existing in the demised premises upon commencement of the Lease. Landlord and Landlord's mortgagee shall be named as additional insureds under said policy, which shall be noncancellable with respect to Landlord and Landlord's mortgagee without twenty (20) days' prior written notice. A certificate evidencing such coverage shall be delivered to Landlord prior to commencement of the demised term and thereafter thirty (30) days prior to the expiration of the term of such policy. Such insurance shall be written as a primary policy, not contributing with and not in excess of coverage Landlord may carry. If Tenant shall not comply with its covenants to maintain said insurance, or if Tenant fails to provide a certificate thereof to Landlord, Landlord may, but shall not be required to, obtain any such insurance, and if Landlord does obtain any such insurance, Tenant shall, on demand, reimburse Landlord for the premium for any such insurance.

Section 10.7. In the event the building on the demised premises shall be damaged as a result of any flood, earthquake, act of war, nuclear reaction, nuclear radiation or radioactive contamination, or from any other casualty not covered by Landlord's fire and extended coverage insurance, to any extent whatsoever, Landlord may within ninety (90) days following the date of such damage, commence repair, reconstruction or restoration of the building and prosecute the same diligently to completion, in which event this Lease shall continue in full force and effect, or within said ninety (90) day period elect not to so repair, reconstruct or restore the building, in which event this Lease shall cease and terminate. In either such event Landlord shall give Tenant written notice of its intention within said ninety-day period.

Section 10.8. Upon any termination of this Lease under the provisions of this Article 10, the rent shall be adjusted as of the date of such termination and the parties shall be released without further obligation to the other party upon the surrender of possession of the demised premises to Landlord, except for items that have been theretofore accrued and are then unpaid, and except for obligations that are designated as surviving such termination.

Section 10.9. Notwithstanding anything in this Article 10 or elsewhere in this Lease to the contrary, Landlord may maintain any insurance on the demised premises that Landlord deems necessary or advisable, including, but not limited to, any rental insurance, owner's protective liability insurance or any insurance required by any mortgagee of Landlord; and Landlord may include the amount of the premiums for such insurance in the total of the insurance premiums which Tenant is required to pay under the terms hereof.

ARTICLE 11 - Repair

Section 11.1. Landlord agrees, at Landlord's sole expense, to maintain and repair the roof structure (not including the roof membrane), exterior walls and foundation and repair structural defects of the building on the demised premises throughout the life of the Lease. Structural defects and maintenance shall not be deemed to include cracks or fissures in walls or floors, nor the requirement of painting or caulking.

Section 11.2. Tenant agrees during the demised term or any extension thereof to maintain the interior of the building on the demised premises, and every part thereof, except as to work to be performed by Landlord under Sections 11.1. and 11.3. Tenant further agrees to clean, inside and out, all of the glass on the exterior of the building. If Tenant should fail to faithfully perform its maintenance obligations hereunder then Landlord shall, upon having given notice to Tenant of the need for said maintenance, have the right to perform, or cause to be performed, said maintenance and Tenant shall on demand reimburse Landlord for Landlord's costs of providing such maintenance. Landlord’s reservation of the right to enter upon the demised premises to perform any repairs or maintenance or other work in, to, or about the demised premises which in the first instance is the Tenant’s obligation pursuant to this Lease shall not be deemed to impose any obligation on Landlord to do so, nor shall Landlord be rendered liable to Tenant or any third party for the failure to do so, and Tenant shall not be relieved from any obligation to indemnify Landlord as otherwise provided elsewhere in this Lease.

Section 11.3 Landlord shall provide the following services and Tenant shall, in addition to all other payments required to be made under other provisions of this Lease, on demand reimburse Landlord for Landlord's gross costs of: (i) maintaining, repairing and replacing the roof; (ii) painting, maintaining and repairing the exterior of the building; (iii) maintaining, repairing and replacing the elevator and elevator equipment room (if any); (iv) maintenance and repair associated with the mechanical and electrical rooms; (v) maintenance and repair of the trash enclosure utilized in connection with the building; (vi) maintenance, repair and replacement of the glass on the exterior of the building and (vii) any other maintenance and repair other than that which Landlord is required to perform at Landlord's expense per Section 11.1. Tenant shall also, on demand, reimburse Landlord for Landlord's gross costs of maintaining, repairing and replacing the heating and air conditioning equipment serving the demised premises, whether furnished by Landlord or Tenant. Landlord's said gross costs as used in this Section 11.3. shall include all costs and expenses of every kind or nature incurred by Landlord in the performance of such maintenance, repair or replacements and Landlord's determination of the amount of said costs and expenses will be final.

Section 11.4. If during the term of this Lease Landlord or Landlord's insurance carrier requires the installation of a specialized fire control system, or any fire detection device, because of the nature of the particular activities being carried on by Tenant in the demised premises, then said system or device shall be installed at the sole cost of the Tenant within the time specified.

Section 11.5. Notwithstanding the provisions of Sections 11.3 and 18.3 hereof to the contrary, Tenant's obligation to reimburse Landlord for (i) costs associated with the replacement (as opposed to repairs and maintenance) of the roof membrane and underlayment, and the heating, ventilating and air-conditioning units furnished by Landlord (but specifically excluding heating, ventilating and air-conditioning units which serve the clean room and labs), and (ii) the cost of any other capital improvement made by Landlord pursuant to Article 11 and/or Article 18 of this Lease during the demised term and required under good accounting practice to be amortized, shall be limited to a proportionate share of such replacement costs (the "Reimbursement Amounts") calculated as follows:

(a) if such costs are incurred during the initial demised term of this Lease, by multiplying such replacement costs by a fraction, the numerator of which is the number of days in the original demised term and the denominator of which is the number of days in the estimated useful life of the replacement; and

(b) if such costs are incurred during any extended term or holding over period of this Lease, by multiplying such replacement costs by a fraction, the numerator of which is the number of days in the demised term of this Lease (including any extended term or holding over period) and the denominator of which is the number of days in the estimated useful life of the replacement.

If a Reimbursement Amount has been determined under subsection (a) above with respect to any replacement costs, and Landlord and Tenant subsequently agree to extend the term of this Lease, Tenant shall also be responsible for another Reimbursement Amount with respect to such replacement costs determined by multiplying such replacement costs by a fraction, the numerator of which is the number of days in the extended term or holding over period of this Lease and the denominator of which is the number of days in the estimated useful life of the replacement.

The foregoing limitation shall not apply to equipment furnished by Tenant and maintained by Landlord. Tenant shall pay any Reimbursement Amounts, as additional rent, monthly on a straight-line basis amortized over the remaining demised term of the Lease using an interest rate equal to ten percent (10%) per annum.

The limitations on Tenant's liability for expenses hereunder shall in no event apply to any costs for replacements occasioned by (x) Tenant's negligent acts or omissions or those of its employees, contractors, agents, invitees or servants, or (y) the particular nature of Tenant's business, all of which costs shall be borne solely by Tenant.

Landlord may bill Tenant monthly for one-twelfth of the estimated costs to be reimbursed by Tenant under this Section 11.5, subject to an annual reconciliation after the end of each lease year. At Tenant's written request, in connection with the annual reconciliation, Landlord shall furnish to Tenant a statement showing the costs incurred, in reasonable detail, the estimated payments made by Tenant, and the amount of any overpayment or underpayment. Tenant shall pay to Landlord the amount of any underpayment within thirty (30) days after receipt of the statement, and Tenant shall be entitled to credit the amount of any overpayment against the next payments of rent due hereunder, except that following the expiration of the term hereof, Landlord shall, provided Tenant is not in default under this Lease, pay to Tenant the amount of any overpayment at the time it furnishes the statement to Tenant.

ARTICLE 12 - Fixtures & Alterations

Section 12.1. All trade fixtures owned by Tenant and installed in the demised premises shall remain the property of Tenant and may be removed from time to time and shall be removed at the expiration of the demised term. Tenant shall repair any damage to the demised premises caused by the removal of said fixtures. If Tenant fails to remove such fixtures on or before the last day of the demised term, all such fixtures shall become the property of Landlord, unless Landlord elects to require their removal, in which case Tenant shall promptly remove them and restore the demised premises to its condition prior to such removal. Landlord may also, at Landlord's sole discretion, store such fixtures at Tenant's expense.

Section 12.2. Tenant shall not make any alterations, additions or improvements in or to the demised premises or the building without submitting plans and specifications therefor for the prior written consent of Landlord, which consent shall not be unreasonably withheld provided same do not involve the exterior of the building, the building structure, or materially affect the mechanical, electrical or life safety systems. Any such alterations, additions or improvements shall comply with all applicable codes and standards, shall be consented to by Landlord, and shall be made at Tenant's sole cost and expense in accordance with the plans and specifications therefor. Within ten (10) days following Tenant's completion thereof, Tenant shall furnish Landlord with a complete set of the final "For Construction" plans therefor in AutoCAD format, including all x-refs, fonts and plot files. Tenant shall secure any and all governmental permits, approvals or authorizations required in connection with any such work, and shall hold Landlord harmless from any and all liability, costs, damages, expenses (including attorneys' fees) and any and all liens resulting therefrom. All alterations, decorations, additions and improvements (and expressly including all light fixtures and floor coverings installed by Tenant), except furniture, removable paneling, wall fixtures, trade fixtures, appliances and equipment which do not become a part of the demised premises, shall be deemed to belong to Tenant, but shall be deemed to have been attached to the demised premises or the building and to have become the property of Landlord upon the termination of the demised term. Upon the expiration or sooner termination of the demised term hereof, Tenant shall, at Tenant's sole cost and expense, forthwith remove (i) all alterations, decorations, additions or improvements installed by or for Tenant, and (ii) all wiring installed by or for Tenant in the demised premises and/or the building, unless excused from doing so in writing by Landlord, and Tenant shall forthwith at its sole cost and expense repair any damage to the demised premises or the building caused by such removal. In the event Tenant does not so remove all such alterations, decorations, additions, improvements and wiring from the demised premises and/or the building, or repair any damage caused by such removal, then Tenant agrees that Landlord may apply such sums from the Security Deposit, or recover such sums from Tenant by judgment if Tenant did not provide a Security Deposit, or if insufficient funds exist in the Security Deposit, to compensate Landlord for the removal and disposal of any of the same and/or repair of any damage therefrom to the demised premises or the building.

ARTICLE 13 - Remedies

Section 13.1. Should Tenant default in the performance of any of its obligations under this Lease with reference to the payment of rent and such default continue for five (5) days after the date such payment is due, or should Tenant default in the performance of any other obligations under this Lease and such default continue for thirty (30) days after receipt of written notice from Landlord specifying such default or beyond the time reasonably necessary to cure if such default is of a nature to require more than thirty (30) days to remedy, then, in addition to all other rights and remedies Landlord may have under this Lease or under applicable law, Landlord shall have the following rights and remedies:

(1) The Landlord has the remedy described in California Civil Code Section 1951.4 (Landlord may continue the lease in effect after Tenant's breach and abandonment and recover Rent as it becomes due, if Tenant has the right to sublet or assign, subject only to reasonable limitations). If Tenant breaches any covenants of this Lease or if any event of default occurs, whether or not Tenant abandons the demised premises, this Lease shall continue in effect until Landlord terminates Tenant's right to possession, and Tenant shall remain liable to perform all of its obligations under this Lease and Landlord may enforce all of Landlord's rights and remedies, including the right to recover rent as it falls due. If Tenant abandons the demised premises or fails to maintain and protect the same as herein provided, Landlord shall have the right to do all things necessary or appropriate to maintain, preserve and protect the demised premises, including the installation of guards, and may do all things appropriate to a re-letting of the demised premises, and none of said acts shall be deemed to terminate Tenant's right of possession, unless Landlord elects to terminate the same by written notice to Tenant. Tenant agrees to reimburse Landlord on demand for all amounts reasonably expended by Landlord in maintaining, preserving and protecting the demised premises, together with interest on the amounts expended from time to time at the maximum legal rate. Landlord shall also have the right to repair, remodel and renovate the demised premises at the expense of Tenant and as deemed necessary by Landlord.

(2) Landlord shall have the right to terminate Tenant's possession of the Premises, and if Tenant's right to possession of the Premises is terminated by Landlord by reason of a breach of this Lease by Tenant, or by reason of the happening of an event of default, or by reason of abandonment of the Premises by Tenant, Landlord shall be entitled, at Landlord's election, to recover damages in an amount as set forth in Section 1951.2 of the Civil Code of California as then in effect, which damages shall include (1) the worth at the time of award of any unpaid rent and additional rent which had been earned at the time of such termination; plus (2) the worth at the time of award of the amount by which the unpaid rent and additional rent which would have been earned after termination until the time of award exceeds the amount of such rental loss Tenant proves could have been reasonably avoided; plus (3) the worth at the time of award of the amount by which the unpaid rent and additional rent for the balance of the term after the time of award exceeds the amount of such rental loss that Tenant proves could be reasonably avoided; plus (4) all other amounts due Landlord from Tenant under the terms of this Lease, or necessary to compensate Landlord for all detriment caused by Tenant's failure to perform its obligations under this Lease. The right to possession of the Premises by Tenant should not be deemed terminated until Landlord gives Tenant written notice of such termination or until Landlord re-lets all or a portion of the Premises. Landlord shall be required to mitigate damages by making a good faith effort to re-let the Premises.

As used in subparagraphs (1) and (2) above, the "worth at the time of award" is computed by allowing interest at the legal rate of ten percent (10%) per annum. As used in subparagraph (3) above, the "worth at the time of award" is computed by discounting such amount at the discount rate of the Federal Reserve Bank of San Francisco at the time of award plus one percent (1%).

(3) No right or remedy herein conferred upon or reserved to Landlord is intended to be exclusive of any other right or remedy herein or by law, provided that each shall be cumulative and in addition to every other right or remedy given herein or now hereafter existing at law or in equity or by statute.

Section 13.2. Landlord shall in no event be in default in the performance of any of its obligations hereunder unless and until Landlord shall have failed to perform such obligations within thirty (30) days or such additional times as is reasonably required to correct any such default after notice by Tenant to the Landlord properly specifying wherein the Landlord has failed to perform any such obligation.

ARTICLE 14 - Bankruptcy

Section 14.1. Tenant shall give written notice to Landlord of its intention to commence proceedings under any state or federal insolvency or bankruptcy law, or any comparable law that is now or hereafter may be in effect, whereby Tenant seeks to be, or would be, discharged of its debts or the payment of its debts is sought to be delayed, at least thirty (30) days prior to the commencement of such proceedings.

Section 14.2. If any of the following events occur:

(1) The entry of an order for relief under Title 11 of the United States Code as to Tenant or its executors, administrators or assigns, if any, or the adjudication of Tenant or its executors, administrators or assigns, if any, as insolvent or bankrupt pursuant to the provisions of any state insolvency or bankruptcy act;

(2) The appointment of a receiver, trustee or other custodian of the property of Tenant by reason of the insolvency or inability of Tenant to pay its debts;

(3) The assignment of the property of Tenant for the benefit of creditors;

(4) The commencement of any proceedings under any state or federal insolvency or bankruptcy law, or any comparable law that is now or hereafter may be in effect, whereby Tenant seeks to be, or would be, discharged of its debts or the payment of its debts is sought to be delayed;

(5) The failure of Tenant to give written notice to Landlord provided for in Section 14.1. above;

then Landlord may, at any time thereafter, in addition to any and all other rights or remedies of Landlord under this Lease or under applicable law, upon written notice to Tenant, terminate this Lease, and upon such notice this Lease shall cease and terminate with the same force and effect as though the date set forth in said notice were the date originally set forth herein and fixed for the expiration of the demised term. Tenant shall thereupon vacate and surrender the demised premises, but shall remain liable as herein provided.

ARTICLE 15 - Surrender of Premises

Section 15.1. Tenant shall, upon termination of the demised term, or any earlier termination of this Lease, surrender to Landlord the demised premises, including, without limitation, all building equipment and apparatus, and fixtures (except as provided in Sections 12.1. and 12.2.) then upon the demised premises without any damage, injury, or disturbance thereto, or payment therefor, except damages due to ordinary wear and tear, acts of God, fire and other perils to the extent the demised premises are not required to be repaired or restored as hereinbefore provided, and Tenant shall dispose of any hazardous materials stored, dispensed, handled or used in, at or upon the demised premises in accordance with the provisions of Section 7.4.

ARTICLE 16 - Eminent Domain

Section 16.1. If more than thirty-three percent (33%) of the floor area of the building on the demised premises shall be taken under the power of eminent domain and the portion not so taken will not be reasonably adequate for the operation of Tenant's business after the Landlord completes such repairs or alterations as the Landlord is obligated or elects to make, Tenant shall have the right to elect either to terminate this Lease, or, subject to Landlord's right to terminate the Lease pursuant to Section 16.4, to continue in possession of the remainder of the demised premises and shall notify Landlord in writing within ten (10) days after such taking of Tenant's election. In the event less than thirty-three percent (33%) of the floor area of the building on the demised premises shall be taken or Tenant elects to remain in possession, as provided in the first sentence hereof, all of the terms herein provided shall continue in effect, except that the base rent shall be reduced in the same proportion that the floor area of the building on the demised premises taken bears to the original floor area of the building on the demised premises, and Landlord shall at its own cost and expense make all necessary repairs or alterations to the building so as to constitute the portion of the building not taken a complete architectural unit and the demised premises a complete unit for the purposes allowed by this Lease, but such work shall not exceed the scope of the work to be done by Landlord in originally constructing said building. From and after the taking date, and during Landlord’s alteration and repair work, rent shall proportionately abate to the extent any portion of the demised premises is rendered inaccessible or not usable by Tenant as a result of such taking or Landlord’s alteration and repair work.

Section 16.2. Each party waives the provisions of Code of Civil Procedure Section 1265.130 allowing either party to petition the Superior Court to terminate this Lease in the event of a partial taking.

Section 16.3. All damages or awards for any taking under the power of eminent domain whether for the whole or a part of the demised premises shall belong to and be the property of Landlord whether such damages or awards shall be awarded as compensation for diminution in value to the leasehold or to the fee of the demised premises; provided however, that Landlord shall not be entitled to the award made to Tenant or Landlord for loss of business, depreciation to, and cost or removal of stock and fixtures and for leasehold improvements which have been installed by Tenant at its sole cost and expense less depreciation which is to be computed on the basis of completely depreciating such leasehold improvements during the initial term of this Lease, and any award made to Tenant in excess of the then depreciated value of leasehold improvements shall be payable to the Landlord.

Section 16.4. If more than thirty-three percent (33%) of the floor areas of the building on the demised premises shall be taken under power of eminent domain, or if any part of the Parking and Accommodation Areas shall be so taken, Landlord may, by written notice to Tenant delivered on or before the date of surrendering possession to the public authority pursuant to such taking, terminate this Lease as of such date.

Section 16.5. If this Lease is terminated as provided in this Article, the rent shall be paid up to the day that possession is so taken by public authority and Landlord shall make a prorata refund of any rent and all deposits paid by Tenant in advance and not yet earned.

ARTICLE 17 - Real Property Taxes

Section 17.1. Tenant shall reimburse Landlord for all real property taxes, assessments and ongoing sewer fees applicable to the demised premises. Taxes shall be prorated to lease years for purpose of making this computation. Such payment shall be made by Tenant within thirty (30) days after receipt of Landlord's written statement setting forth the amount of such computation thereof. If the demised term of this Lease shall not expire concurrently with the expiration date of the fiscal tax year, Tenant's liability for taxes for the last partial lease year shall be prorated on an annual basis.

Section 17.2. If the demised premises are not separately assessed, Tenant's liability shall be an equitable proportion of the real property taxes for all of the land and improvements included within the tax parcel assessed, such proportion to be determined by Landlord from the respective valuations assigned in the assessor's work sheets or such other information as may be reasonably available. Landlord's reasonable determination thereof, in good faith, shall be conclusive.

Section 17.3. Tenant shall pay prior to delinquency all taxes assessed against and levied upon trade fixtures, furnishings, equipment and all other personal property contained in the demised premises or elsewhere. Tenant shall cause said trade fixtures, furnishings, equipment and all other personal property to be assessed and billed separately from the real property of Landlord.

If any of Tenant's said personal property shall be assessed with Landlord's real property, Tenant shall pay Landlord the taxes attributable to Tenant within ten (10) days after receipt of a written statement setting forth the taxes applicable to Tenant's property.

Section 17.4. In addition to all other payments provided for herein, the Tenant shall on demand reimburse Landlord for any surcharges, fees, and any similar charges required to be paid by any instrumentality of local, state or federal government in connection with parking in the parking area, including policing; supervising with attendants; other costs in connection with providing charged parking; repairs, replacements and maintenance not properly chargeable to capital account under good accounting principles; interest and depreciation of the actual cost of modification or improvements to the areas, facilities and improvements maintained in this Article either (i) required by any instrumentality of local, state or federal government, or (ii) installed by Landlord on account of governmental requirements to facilitate payment of a parking charge by the general public for parking in the parking area, or both, and other similar costs; and there shall be excluded (a) cost of construction of such improvements which is properly chargeable to capital account and (b) depreciation of the original cost of construction of all items not previously mentioned in this sentence. If Landlord shall on account of governmental requirements require the payment of a parking charge by the general public for parking in the parking area, then during any period in which such a charge is made the total revenue (after deducting excise and similar taxes thereon and taxes, fees or surcharges imposed by any agency or instrumentality of local, state or federal government) actually received in cash or its equivalent by Landlord for such parking charge shall be credited against said gross costs.

Section 17.5. Notwithstanding the provisions of Article 17 hereinabove, Tenant shall pay any increase in "real property taxes" resulting from any and all improvements of any kind whatsoever placed on or in the demised premises for the benefit of or at the request of Tenant regardless of whether said improvements were installed or constructed either by Landlord or Tenant.

Section 17.6. In addition to all other payments provided for herein, the Tenant shall on demand reimburse Landlord for any tax (excluding income tax and state franchise fees) and/or business license fee or other levy that may be levied, assessed or imposed upon the rent or other payments provided for herein or on the square footage of the demised premises, on the act of entering into this Lease, or on the occupancy of the Tenant however described, as a direct substitution in whole or in part for, or in addition to, any real property taxes, whether pursuant to laws presently existing or enacted in the future.

ARTICLE 18 - Parking and Accommodation Areas

Section 18.1. Subject to the provisions of Section 18.2, Landlord grants to Tenant during the demised term the exclusive right to use the parking facilities and other areas provided and designated as "Parking and Accommodation Areas" on Exhibit "B" hereto for the accommodation and parking of such automobiles of the Tenant, its officers, agents, employees and its invitees while working or visiting Tenant. Landlord shall not be responsible to enforce such exclusive right to use all of the parking spaces in the Parking and Accommodation Areas, and the use of any such parking spaces by persons other than Tenant or its employees, contractors, agents and invitees shall not be deemed a breach by Landlord of any provision of this Lease. Tenant agrees that its officers, agents and employees will park their automobiles only in the parking areas provided in the Parking and Accommodation Areas, and Tenant specifically agrees that such officers, agents and employees will not park on any public streets in the vicinity of the demised premises. Except as provided in Section 17.4., Landlord shall not charge parking fees for such right to use parking facilities.

Section 18.2. All parking areas and facilities furnished by Landlord including, but not limited to, pedestrian sidewalks, landscaped areas and parking areas shall at all times be subject to the control and management of Landlord so that Landlord will be in a position to make available efficient and convenient use thereof, and Landlord shall have the right from time to time to establish, modify and enforce reasonable rules and regulations with respect to all facilities and areas mentioned in this Article, and Tenant agrees to abide by and conform therewith. Landlord shall have the right to construct, maintain and operate lighting facilities on all of said areas and improvements, to police the same, from time to time to change the area, location and arrangement of parking areas and facilities, to restrict employee parking to employee parking areas, to construct surface, subterranean and/or elevated parking areas and facilities, to establish and from time to time change the level of parking surfaces, to close (if necessary) all or any portion of said areas or facilities to such extent as may in the opinion of Landlord's counsel be legally sufficient to prevent a dedication thereof or the accrual of any rights of any person or of the public therein, and to do and perform such other acts in and to said areas and improvements respectively as in the use of good business judgment the Landlord shall determine to be advisable with a view to the improvement of the convenience and use thereof by Tenant, other lessees, and their respective employees and visitors.

Section 18.3. Tenant agrees during the demised term to pay to Landlord an annual charge which shall be Landlord's actual gross costs of operating, maintaining and/or replacing all of the areas and facilities mentioned in this Article. The annual charge shall be an estimate computed on the basis of periods of twelve (12) consecutive calendar months, commencing and ending on such dates as may be designated by Landlord, and shall be paid in monthly installments on the first day of each calendar month in the amount estimated by Landlord. Within ninety (90) days after the end of each such annual period, Landlord will determine (and furnish to Tenant a statement showing in reasonable detail) the actual annual charge for such period and the amounts so estimated and paid during such period shall be adjusted within such ninety (90) days (including adjustments on a prorata basis of any partial such period at either end of the demised term) and one party shall pay to the other on demand whatever amount is necessary to effectuate such adjustment.

Landlord's said gross costs shall consist of and include all costs and expenses of every kind or nature incurred by Landlord in the operation, maintenance and/or replacement of all of the areas, facilities and improvements mentioned in this Article determined in accordance with good accounting practice by an accountant employed by Landlord. The determination of such accountant shall be conclusive. Without otherwise limiting the generality of the foregoing, there shall be included in such gross costs public liability and property damage insurance, landscape maintenance, maintenance of utilities, water, cleaning of areas, facilities and improvements, operation of lighting, common area taxes and assessments determined in the same manner as taxes and assessments on the demised premises, policing and sweeping of parking areas, supervising with attendants, repairs, replacements and maintenance, and an amount equal to ten percent (10%) of the total of all of the above for administration of the Parking and Accommodation Areas.

Section 18.4. The Parking and Accommodation Areas included for the purpose of this Article are those shown on Exhibit "B" outside of the building area.

ARTICLE 19 - Miscellaneous

Section 19.1. Landlord and its designee shall have the right during reasonable business hours to enter the demised premises except restricted areas as established by or on behalf of the Federal Government for security purposes (and in emergencies at all times), (i) to inspect the same, (ii) for any purpose connected with Landlord's rights or obligations under this Lease and, (iii) for all other lawful purposes.

Section 19.2. Tenant shall not be entitled to make repairs at Landlord's expense, and Tenant waives the provisions of Civil Code Sections 1941 and 1942 with respect to Landlord's obligations for tenantability of the demised premises and Tenant's right to make repairs and deduct the expenses of such repairs from rent.

Section 19.3. This Lease shall be governed exclusively by the provisions hereof and by the laws of the State of California as the same from time to time exist. This Lease expresses the entire understanding and all agreements of the parties hereto with each other and neither party hereto has made or shall be bound by any agreement or any representation to the other party which is not expressly set forth in this Lease. If any provision of this Lease shall be invalid, unenforceable or ineffective for any reason whatsoever, all other provisions hereof shall be and remain in full force and effect.

Section 19.4. If Tenant should hold over after the demised term and any extension thereof as herein provided for, then such holding over shall be construed as a tenancy from month to month at a rent double that provided for under the monthly rental of the principal term of this Lease.

Section 19.5. Tenant agrees to maintain all toilet and washroom facilities within the demised premises in a neat, clean and sanitary condition.

Section 19.6. Landlord covenants and agrees that Tenant, subject to the terms and provisions of this Lease, on paying the rent and observing, keeping and performing all of the terms and provisions of this Lease on its part to be observed, kept and performed, shall lawfully, peaceably and quietly have, hold, occupy and enjoy the demised premises during the demised term without hindrance or ejection by any person lawfully claiming under or against the Landlord.

Section 19.7. Subject to Article 6, the terms and provisions hereof shall be construed as running with the land and shall be binding upon and inure to the benefit of heirs, executors, administrators, successors and assigns of Landlord and Tenant.

Section 19.8.

A. Tenant shall promptly pay all sums of money with respect to any labor, services, materials, supplies or equipment furnished or alleged to have been furnished to Tenant in, at or about the demised premises, or furnished to Tenant's agents, employees, contractors or subcontractors, that may be secured by any mechanic's, materialmen's, supplier's or other liens against the demised premises or Landlord's interest therein. In the event any such or similar liens shall be filed, Tenant shall, within three (3) days of receipt thereof, give notice to Landlord of such lien, and Tenant shall, within ten (10) days after receiving notice of the filing of the lien, discharge such lien by payment of the amount due to the lien claimant. However, Tenant may in good faith contest such lien provided that within such ten (10) day period Tenant provides Landlord with a surety bond from a company acceptable to Landlord, protecting against said lien in an amount at least one and one-half (1-1/2) times the amount claimed or secured as a lien or such greater amount as may be required by applicable law; and provided further that Tenant, if it should decide to contest such lien, shall agree to indemnify, defend and save harmless Landlord from and against all costs arising from or in connection with any proceeding with respect to such lien. Failure of Tenant to discharge the lien, or, if contested, to provide such bond and indemnification, shall constitute a default under this Lease and in, addition to any other right or remedy of Landlord, Landlord may, but shall not be obligated, to discharge or secure the release of any lien by paying the amount claimed to be due, and the amount so paid by Landlord, and all costs and expenses incurred by Landlord therewith, including, but not limited to, court costs and reasonable attorneys' fees, shall be due and payable by Tenant to Landlord forthwith on demand.

B. At least fifteen (15) days before the commencement by Tenant of any material construction or remodeling work on the demised premises, Tenant shall give written notice thereof to Landlord. Landlord shall have the right to post and maintain on the demised premises such Notices of Non-Responsibility, or similar notices, provided for under applicable laws.

Section 19.9.

A. Tenant shall deposit with Landlord the sum specified in Section 2.4.(B) hereof as a "Security Deposit". The Security Deposit shall be held by Landlord as security for the faithful performance of all the terms of this Lease to be observed and performed by Tenant. The Security Deposit shall not be mortgaged, assigned, transferred or encumbered by Tenant without the written consent of Landlord and any such act on the part of Tenant shall be without force and effect and shall not be binding upon Landlord.

B. If any of the rents herein reserved or any other sum payable by Tenant to Landlord shall be overdue and unpaid, or should Landlord make payments on behalf of Tenant, or should Tenant fail to perform any of the terms of this Lease, then Landlord may, at its option and without prejudice to any other remedy which Landlord may have on account thereof, apply the entire Security Deposit, or so much thereof as may be necessary, to compensate Landlord toward the payment of rent or additional rent, loss, or damage sustained by Landlord due to such breach on the part of Tenant, and Tenant shall forthwith upon demand restore said Security Deposit to the original sum deposited. Should Tenant comply with all of said terms and promptly pay all of the rent and all other sums payable by Tenant to Landlord, said Security Deposit shall be returned in full to Tenant at the end of the demised term.

C. In the event of bankruptcy or other similar proceedings listed in Article 14 hereof, the Security Deposit shall be deemed to be applied first to the payment of rent and other charges due Landlord for all periods prior to the filing of such proceedings.

D. In the event Landlord delivers the Security Deposit to the purchaser of Landlord's interest in the demised premises, Landlord, after written notice to Tenant of said delivery, shall be discharged from any further liability with respect to the Security Deposit. This provision shall also apply to any subsequent transferees.

Section 19.10. All notices, statements, demands, requests, consents, approvals, authorizations, offers, agreements, appointments or designations hereunder by either party to the other shall be in writing and shall be sufficiently given and served upon the other party if sent by United States certified mail, return receipt requested, postage prepaid, or overnight courier (provided a receipt is given), and addressed as follows:

If sent by mail to Tenant, the same shall be addressed to the Tenant at 230 Constitution Drive, Menlo Park, California 94025, or at such other place as Tenant may from time to time designate by notice to Landlord.

If sent by mail to Landlord, the same shall be addressed to Landlord at Sixty 31st Avenue, San Mateo, California 94403-3497, or at such other place as Landlord may from time to time designate by notice to Tenant.

Any such notice when sent by certified mail as above provided shall be deemed duly served on the third business day following the date of such mailing. Any such notice when sent by overnight courier as above provided shall be deemed duly served on the first business day following the date of such mailing.

Section 19.11. As used in this Lease and when required by the context, each number (singular or plural) shall include all numbers, and each gender shall include all genders; and unless the context otherwise requires, the word "person" shall include corporation, firm or association.

Section 19.12. In case of litigation with respect to the mutual rights, obligations, or duties of the parties hereunder, the prevailing party shall be entitled to reimbursement from the other party of all costs and reasonable attorneys' fees actually incurred.

Section 19.13. Each term and each provision of this instrument performable by Tenant shall be construed to be both a covenant and a condition.

Section 19.14. Except as otherwise expressly stated, each payment provided herein to be made by Tenant to Landlord shall be in addition to and not in substitution for the other payments to be made by Tenant to Landlord.

Section 19.15. Time is and shall be of the essence of this Lease and all of the terms, provisions, covenants and conditions hereof.

Section 19.16. The Tenant warrants that it has not had any dealings with any realtor, broker, or agent in connection with the negotiation of this Lease. Each party agrees to hold the other harmless from any cost, expense or liability for any compensation, commissions or charges claimed by any realtor, broker, or agent with respect to this Lease and/or the negotiation thereof with whom the other party has or purportedly has dealt.

Section 19.17. Tenant agrees that its interest in this Lease shall be subordinate to any mortgage, deed of trust and/or other security indenture hereafter placed upon the demised premises and to any and all advances made or to be made thereunder and to the interest thereon made and all renewals, replacements, and extensions thereof, but nothing herein contained shall be deemed to alter or limit Tenant's rights as set forth in Section 19.6. Tenant shall, at the request of Landlord or any mortgagee, trustee or holder of any such security instrument, execute in writing an agreement subordinating its rights under this Lease to the lien of such mortgage, deed of trust and/or other security indenture. If any mortgagee, trustee or holder of such security instrument elects to have the Tenant's interest in this Lease superior to any such instrument by notice to Tenant, then this Lease should be deemed superior to the lien of any such mortgage, deed of trust or security indenture whether this Lease was executed before or after said mortgage, deed of trust and/or security indenture.

Section 19.18. Landlord reserves the right during the last six months of the demised term of this Lease or the last six months of any extension hereof to enter the property during normal working hours for the purpose of showing the demised premises (except restricted areas established by, or on behalf of, the Federal Government for security purposes) to prospective tenants or purchasers and to place signs (for the last year) on the demised premises advertising the property for lease or sale.

Section 19.19. The following terms as used in this Lease shall have the following meaning:

(a) "Unavoidable Delay" means any prevention, delay or stoppage due to strike(s), lockout(s), labor dispute(s), act(s) of God, inability to obtain labor or materials or reasonable substitutes therefor, governmental restrictions, governmental regulations, governmental controls, enemy or hostile governmental action, civil commotion, fire or other casualty, and other conditions or causes beyond the reasonable control of the party obligated to perform.

Section 19.20. Tenant shall at any time during the demised term, within ten (10) days after written notice from Landlord, execute, acknowledge and deliver to Landlord or, at Landlord's request, Landlord's mortgagee, an estoppel certificate in writing (i) certifying that this Lease is unmodified and in full force and effect (or, if modified, stating the nature of such modification and certifying that this Lease, as so modified, is in full force and effect) and the date to which the rent and other charges are paid in advance, if any, (ii) acknowledging that there are not, to Tenant's knowledge, any uncured defaults on the part of Landlord hereunder, or specifying such defaults, if any, are claimed, and (iii) ratifying and certifying any such other matters as may reasonably be requested. Any such certificate may be conclusively relied upon by any prospective purchaser or encumbrancer of the demised premises. Tenant's failure to deliver such certificate within such time shall be conclusive upon Tenant that this Lease is in full force and effect, without modification except as may be represented by Landlord; that there are no uncured defaults in Landlord's performance, and that not more than one month's rent has been paid in advance.

IN WITNESS WHEREOF, the parties have executed this instrument.

TENANT: BIOTIME, a California corporation	LANDLORD: DAVID D. BOHANNON ORGANIZATION, a California corporation
By: Michael D. West President	By: Scott Bohannon Senior Vice President
By: Judith Segall Secretary	By: _____ Secretary

EXHIBIT "A"

BOHANNON PARK
230 CONSTITUTION DRIVE
MENLO PARK, CALIFORNIA
DESCRIPTION OF DEMISED PREMISES
FOR
"BIOTIME"

Commencing at the most easterly corner of Parcel 2, as said parcel is shown on a map entitled "Parcel Map, being a resubdivision of Lots 36, 37, 38, 39 and 40 of Bohannon Industrial Park Unit No.7 (Vol.60 of Maps, Page 10), Menlo Park, San Mateo County, California," which map was filed in the office of the County Recorder of San Mateo County, State of California, on October 2, 1973, in Volume 22 of Parcel Maps at Page 26, more particularly described as follows:

Thence from said corner of commencement South 67°17' East 47.00 feet and South 22°43' West 20.00 feet;

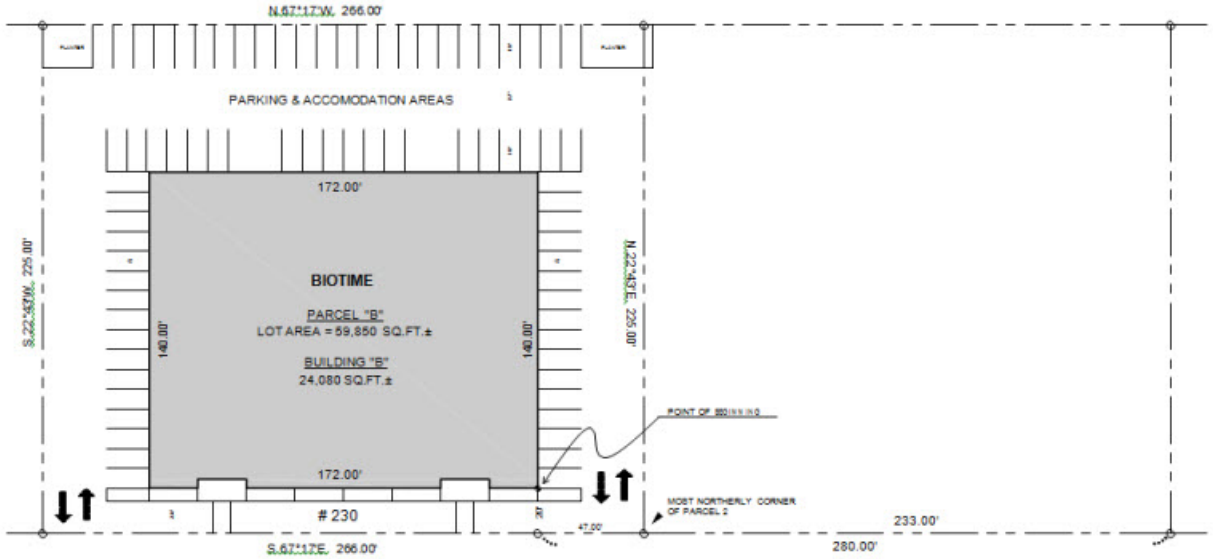
THENCE	SOUTH	67°17'	EAST	172.00	FEET;
"	SOUTH	22°43'	WEST	140.00	FEET;
"	NORTH	67°17'	WEST	172.00	FEET;
AND	NORTH	22°43'	EAST	140.00	FEET

to the point of beginning.

Containing approximately **24,080 square feet**.

PORTION OF PARCEL 2

PARCEL 1



CONSTITUTION DRIVE

SCALE: 1" = 60'-0"

BOHANNON INDUSTRIAL PARK

EXHIBIT "B"

230 CONSTITUTION DRIVE, MENLO PARK, CALIF.

August 15, 2012

TENANT: **BIOTIME**

Exhibit 10.61

STOCK PURCHASE AGREEMENT

THIS STOCK PURCHASE AGREEMENT (the "Agreement") is made and entered into as of January 7, 2013 (the "Effective Date") by and between BioTime, Inc., a California corporation having its principal place of business at 1301 Harbor Bay Parkway, Alameda, CA 94502 (the "Company") and David D. Bohannon Organization, a California corporation having an office at 60 Hillsdale Mall, San Mateo, CA 94403-3497 (the "Acquirer").

A. The Company has agreed to issue, and the Acquirer has agreed to accept, Company common shares, no par value to Acquirer in addition to base rent, as additional consideration for the leasehold estate of the demised premises at 230 Constitution Drive, Menlo Park, California under a Lease of even date.

B. The Acquirer and the Company desire to specify the terms and conditions of the Company's issuance of such common shares;

THE PARTIES AGREE AS FOLLOWS:

1. ISSUANCE OF SHARES; PURCHASE PRICE. The Acquirer hereby acquires and the Company hereby issues to Acquirer 73,553 common shares, no par value (the "Shares") in consideration of the leasehold estate in the Premises conveyed pursuant to the Lease. Upon issuance and delivery of the certificate(s) for the Shares, all Shares shall be duly authorized and validly issued and represent fully paid common shares of the Company'.

2. CLOSING; DELIVERY

2.1. The consummation of the transaction contemplated by this Agreement (a "Closing") shall be held at such time and place as is mutually agreed upon between the parties, but in any event no later than fifteen (15) business days after the Effective Date of this Agreement (the "Closing Date"). At the Closing, the Company shall deliver to the Acquirer one or more certificates representing all of the Shares, which Shares shall be issued in the name of the Acquirer or its designee and in such denominations as the Acquirer shall specify.

2.2. The Company's obligations to issue and deliver the stock certificate(s) representing the Shares to the Acquirer at the Closing shall be subject to the following conditions, which may be waived by the Company:

2.2.1. the covenants and obligations that the Acquirer is required to perform or to comply with pursuant to this Agreement, at or prior to the Closing, must have been duly performed and complied with in all material respects; and

2.2.2. the representations and warranties made by the Acquirer herein shall be true and correct in all material respects as of the Closing Date.

2.3. The Acquirer's obligation to accept delivery of the stock certificate(s) representing the Shares at the Closing shall be subject to the following conditions, any one or more of which may be waived by the Acquirer:

2.3.1. the covenants and obligations that the Company is required to perform or to comply with pursuant to this Agreement, at or prior to the Closing, must have been duly performed and complied with in all material respects;

2.3.2. The Company shall have available under its Articles of Incorporation sufficient authorized common shares to issue the Shares to the Acquirer; and

2.3.3. the representation and warranties made by the Company herein shall be true and correct in all material respects as of any Closing Date.

3. RESTRICTIONS ON RESALE OF SHARES.

3.1. Legends. The Acquirer understands and acknowledges that the Shares are not registered under the Securities Act of 1933 (the "Act") and that under the Act and other applicable laws the Acquirer may be required to hold such Shares for an indefinite period of time. Each stock certificate representing Shares shall bear the following legends:

"THE SECURITIES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "ACT"). ANY TRANSFER OF SUCH SECURITIES SHALL BE INVALID UNLESS A REGISTRATION STATEMENT UNDER THE ACT IS IN EFFECT AS TO SUCH TRANSFER OR, IN THE OPINION OF COUNSEL REASONABLY ACCEPTABLE TO THE COMPANY, SUCH REGISTRATION IS UNNECESSARY FOR SUCH TRANSFER TO COMPLY WITH THE ACT. THE SECURITIES REPRESENTED HEREBY ARE SUBJECT TO THE TERMS OF THE STOCK PURCHASE AGREEMENT, DATED AS OF JANUARY 7, 2013. A COPY OF THE AGREEMENT CAN BE OBTAINED FROM THE SECRETARY OF THE COMPANY."

3.2. Limits on Sales. The Acquirer agrees that if it decides to resell some or all of the Shares, it will do so only in an appropriate manner through orderly sales executed through a top-tier brokerage firm, and based upon whether the shares are registered or unregistered, i.e., on the NYSE.MKT or other national securities exchange, or in a Rule 144A compliant transaction. Subject to the foregoing restrictions, the Acquirer may sell or resell the Shares in any lot size, or at any volume, desired by the Acquirer.

3.3. Further Limitations. The Company shall not be required (i) to transfer on its books any Shares that have been sold or otherwise transferred in violation of any of the provisions of this Agreement or applicable securities laws; or (ii) to treat as owner of such Shares or to accord the right to vote or pay dividends to any purchaser or other transferee to whom such Shares shall have been so transferred in violation of any of the provisions of this Agreement or applicable securities laws.

4. REGISTRATION RIGHTS.

4.1. The Company agrees to file with the Securities and Exchange Commission (the "Commission"), as promptly as practicable using commercially reasonable efforts **and in any event within one hundred and twenty (120) days after the Closing Date** either (a) a prospectus supplement covering the issuance of the Shares to Acquirer under the Company's shelf registration statement on Form S-3, or (b) a new registration statement under the Act on Form S-3 or other appropriate form, so as to permit a non-underwritten public offering and resale of the Shares under the Act by the Acquirer. In the case of the filing of a new registration statement, the Company agrees to diligently pursue making that registration statement effective. The Company will make commercially reasonable efforts to notify the Acquirer of the filing of a prospectus supplement under Rule 424(b) promulgated under the Act, or the effectiveness of the registration statement covering the Shares within one (1) business day of the filing of the prospectus supplement or receiving notice from the Commission declaring the registration statement effective, but no later than the close of business (Pacific Time) of the second business day after such filing or receipt of such notice from the Commission.

4.2. The Company shall notify the Acquirer as promptly as possible of any review initiated by the Commission with respect to any such registration statement.

4.3. The Company will maintain the registration statement or any post-effective amendment thereto filed under this Section 4 effective under the Act until the earliest of (i) the. date that none of the Shares covered by such registration statement are issued and outstanding, (ii) the date that all of the Shares have been sold pursuant to such registration statement, (iii) the date the Acquirer receives an opinion or counsel to the Company, which counsel shall be reasonably acceptable to the Acquirer, that the Shares may be sold under the provisions of Rule 144, (iv) the date that all Shares have been otherwise transferred to persons who may trade such shares without restriction under the Act, and the Company has delivered a new certificate or other evidence of ownership for such securities not bearing a restrictive legend, or (v) the date all Shares may be sold at any time pursuant to Rule 144 or any similar provision then in effect under the Act in the opinion of counsel to the Company, which counsel shall be reasonably acceptable to the Acquirer (the "Effectiveness Period").

4.4. All fees, disbursements and out-of-pocket expenses and costs incurred by the Company in connection with the preparation and filing of the registration statement and any prospectus supplement under Section 4.1 and in complying with applicable securities and Blue Sky laws (including, without limitation, all attorneys' fees of the Company) shall be borne by the Company. The Acquirer shall bear the cost of underwriting and/or brokerage discounts, fees and commissions, if any, applicable to the Shares being registered and the fees and expenses of their counsel.

4.5. The Company, at its expense, shall furnish the Acquirer with respect to the Shares registered under the Registration Statement such reasonable number of copies of the registration statement, prospectus and prospectus supplement in conformity with the requirements of the Act and such other documents as the Acquirer may reasonably request, in order to facilitate the public sale or other disposition of all or any of the Shares by the Acquirer, provided, however, that the obligation of the Company to deliver copies of prospectus or prospectus supplement to the Acquirer shall be subject to the receipt by the Company of reasonable assurances from the Acquirer that the Acquirer will comply with the applicable provisions of the Act and of such other securities or blue sky laws as may be applicable in connection with any use of such prospectus or prospectus supplements.

4.6. The Acquirer will cooperate with the Company in all respects in connection with this Agreement, including timely supplying all information reasonably requested by the Company (which shall include all information regarding the Acquirer and proposed manner of sale of the Shares required to be disclosed in any registration statement) and executing and returning all documents reasonably requested in connection with the registration and sale of the Shares and entering into and performing their obligations under any underwriting agreement, if the offering is an underwritten offering, in usual and customary form, with the managing underwriter or underwriters of such underwritten offering. Nothing in this Agreement shall obligate the Acquirer to consent to be named as an underwriter in any registration statement.

5. REPRESENTATIONS AND ACKNOWLEDGEMENT OF THE COMPANY.

The Company hereby represents, warrants and covenants to the Acquirer as follow:

5.1. Organization, Good Standing and Qualification. The Company is a corporation duly organized, validly existing and in good standing under the laws of the State of California and has all requisite corporate power and authority to carry on its business as now conducted and as presently proposed to be conducted. The Company is duly qualified to transact business and is in good standing as a foreign corporation in each jurisdiction in which the failure to so qualify would have a material adverse effect on its business or properties.

5.2. Authorization. The Company has full right, power, authority and capacity to enter into this Agreement and to consummate the transactions contemplated hereby, including the requirements for the use of Form S-3 for registration of the Shares and has taken all necessary action to authorize the execution, delivery and performance of this Agreement. Upon execution and delivery, this Agreement will constitute a valid and binding obligation of the Company enforceable against the Company in accordance with its terms, except as such enforceability may be limited by applicable bankruptcy, insolvency, reorganization, moratorium, fraudulent transfer, liquidation or similar laws relating to, or affecting generally, the enforcement of creditor's rights and remedies or by other equitable principles of general application from time to time in effect.

5.3. Valid Issuance of Shares. The Shares, when issued, sold and delivered in accordance with the terms hereof for the consideration expressed herein, will be duly and validly authorized and issued, fully paid and nonassessable and free of restrictions on transfer other than restrictions on transfer under this Agreement and applicable state and federal securities laws.

5.4. Legal Proceedings and Orders. There is no action, suit, proceeding or investigation pending or threatened against the Company that questions the validity of this Agreement or the right of the Company to enter into this Agreement or to consummate the transactions contemplated hereby, nor is the Company aware of any basis for any of the forgoing. The Company is neither a party nor subject to the provisions of any order, writ, injunction, judgment or decree of any court or government agency or instrumentality that would affect the ability of the Company to enter into this Agreement or to consummate the transactions contemplated hereby.

6. REPRESENTATIONS AND ACKNOWLEDGMENTS OF THE ACQUIRER.

The Acquirer hereby represents, warrants, acknowledges and agrees that:

6.1. Investment. The Acquirer is acquiring the Shares for the Acquirer's own account, and not directly or indirectly for the account of any other person. The Acquirer is acquiring the Shares for investment and not with a view to distribution or resale thereof, except in compliance with the Act and any applicable state law regulating securities.

6.2. Access to Information. Acquirer has consulted with its own attorney, accountant, or investment advisor as the Acquirer has deemed advisable with respect to the investment and has determined its suitability for Acquirer. The Acquirer has had the opportunity to ask questions of, and to receive answers from, appropriate executive officers of the Company with respect to the terms and conditions of the transactions contemplated hereby and with respect to the business, affairs, financial condition and results of operations of the Company. The Acquirer has had access to such financial and other information as is necessary in order for the Acquirer to make a fully informed decision as to investment in the Company, and has had the opportunity to obtain any additional information necessary to verify any of such information to which the Acquirer has had access. Acquirer acknowledges that neither the Company nor any of its officers, directors, employees, agents, representatives, or advisors have made any representation or warranty other than those specifically expressed herein.

6.3. Business and Financial Expertise. The Acquirer further represents and warrants that it has such business or financial expertise as to be able to evaluate its investment in the Company and purchase of the Shares.

6.4. Speculative Investment. The Acquirer acknowledges that the investment in the Company represented by the Shares is highly speculative in nature and is subject to a high degree of risk of loss in whole or in part; the amount of such investment is within the Acquirer's risk capital means and is not so great in relation to the Acquirer's total financial resources as would jeopardize the personal financial needs of the Acquirer in the event such investment were lost in whole or in part.

6.5. Unregistered Securities. The provisions of this Section 6.5 shall apply if the Shares have not been registered under the Act at the time issued to Acquirer. Acquirer acknowledges that:

6.5.1. The Acquirer must bear the economic risk of investment for an indefinite period of time because the Shares have not been registered under the Act and therefore cannot and will not be sold unless they are subsequently registered under the Act or an exemption from such registration is available. The Company has made no agreements, covenants or undertakings whatsoever to register any of the Shares under the Act, except as provided in Section 4 above. The Company has made no representations, warranties or covenants whatsoever as to whether any exemption from the Act, including, without limitation, any exemption for limited sales in routine brokers' transactions pursuant to Rule 144 under the Act, will become available and any such exemption pursuant to Rule 144, if available at all, will not be available unless: (i) a public trading market then exists in the Company's common stock, (ii) the Company has complied with the information requirements of Rule 144, and (iii) all other terms and conditions of Rule 144 have been satisfied.

6.5.2. Transfer of the Shares has not been registered or qualified under any applicable state law regulating securities and, therefore, the Shares cannot and will not be sold unless they are subsequently registered or qualified under any such act or an exemption therefrom is available. The Company has made no agreements, covenants or undertakings whatsoever to register or qualify any of the Shares under any such act. The Company has made no representations, warranties or covenants whatsoever as to whether any exemption from any such act will become available.

6.5.3. The Acquirer hereby certifies that it is an "accredited investor" as that term is defined in Rule 501 under the Act.

6.6. Authorization. The Acquirer has full right, power, authority and capacity to enter into this Agreement and to consummate the transactions contemplated hereby and thereby and has taken all necessary action to authorize the execution, delivery and performance of this Agreement. Upon execution and delivery, this Agreement will constitute a valid and binding obligation of the Acquirer enforceable against the Acquirer in accordance with its terms, except as such enforceability may be limited by applicable bankruptcy, insolvency, reorganization, moratorium, fraudulent transfer, liquidation or similar laws relating to, or affecting generally, the enforcement of creditor’s rights and remedies or by other equitable principles of general application from time to time in effect

7. TAX ADVICE. The Acquirer acknowledges that the Acquirer has not relied and will not rely upon the Company or the Company's counsel with respect to any tax consequences related to the ownership, purchase, or disposition of the shares. The Acquirer assumes full responsibility for all such consequences and for the preparation and filing of all tax returns and elections which may or must be filed in connection with the shares.

8. NOTICES. Any notice or other communication required or permitted hereunder shall be in writing and shall be deemed to have been duly given on the date of delivery if delivered personally or by facsimile, or one day, not including Saturdays, Sundays, or national holidays, after sending if sent by national next business day delivery service, or five days, not including Saturdays, Sundays, or national holidays, after mailing if mailed by first class United States mail, certified or registered with return receipt requested, postage prepaid, and addressed as follows:

To the Company at:	BioTime, Inc. 1301 Harbor Bay Parkway Alameda, CA 94502 Attention: Chief Financial Officer Telephone: (510) 521-3390 Facsimile: (510) 521-3389
To the Acquirer at:	David D. Bohannon Organization Sixty 31st Avenue San Mateo, CA 94403-3497 Attention: Chief Financial Officer Telephone: (650) 345-8222 Facsimile: (650) 573-5457

9. BINDING EFFECT. This Agreement shall be binding upon the heirs, legal representatives and successors of the Company and of the Acquirer; provided, however, that the Acquirer may not assign any rights or obligations under this Agreement. The Company's rights under this Agreement shall be freely assignable.

10. ATTORNEYS' FEES. If any action or proceeding or arbitration is commenced by either party to enforce its rights under this Agreement or to collect damages as a result of the breach of any of the provisions of this Agreement, the prevailing party in such action or proceeding or arbitration, including any bankruptcy, insolvency or appellate proceedings, shall be entitled to recover all reasonable out-of-pocket costs and expenses, including, without limitation, reasonable attorneys' fees and court costs, in addition to any other relief awarded by the court or arbitrator.

11. GOVERNING LAW. This Agreement shall be governed by and construed in accordance with the laws of the State of California, United States of America.

12. INVALID PROVISIONS. In the event that any provision of this Agreement is found to be invalid or otherwise unenforceable by a court or other tribunal of competent jurisdiction, such invalidity or unenforceability shall not be construed as rendering any other provision contained herein invalid or unenforceable, and all such other provisions shall be given full force and effect to the same extent as though the invalid and unenforceable provision was not contained herein.

13. COUNTERPARTS. This Agreement may be executed in any number of identical counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

14. AMENDMENTS. This Agreement or any provision hereof may be changed, waived, or terminated only by a statement in writing signed by the party against whom such change, waiver or termination is sought to be enforced.

15. FUTURE COOPERATION. Each of the parties hereto agrees to cooperate at all times from and after the date hereof with respect to all of the matters described herein, and to execute such further assignments, releases, assumptions, amendments of the Agreement, notifications and other documents as may be reasonably requested for the purpose of giving effect to, or evidencing or giving notice of, the transactions contemplated by this Agreement.

16. ENTIRE AGREEMENT. This Agreement, and the Lease, constitute the entire agreement of the parties pertaining to the Shares and supersede all prior and contemporaneous agreements, representations, and understandings of the parties with respect thereto.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the Effective Date.

BIOTIME, INC.

By: */s/ Michael D. West*
Title: Chief Executive Officer

DAVID D. BOHANNON ORGANIZATION

By: */s/ Scott Bohannon*
Title: Senior Vice President

Exhibit 10.62

AMENDMENT OF STOCK AND WARRANT PURCHASE AGREEMENT

This Amendment of Stock and Warrant Purchase Agreement ("Amendment") is entered into by Romulus Films Ltd. ("Purchaser") and BioTime, Inc., a California corporation (the "Company), as of March 7, 2013, and amends that certain Stock and Warrant Purchase Agreement ("Agreement"), dated January 4, 2013, between the Purchaser and BioTime.

1. Closing.

(a) The third sentence of Section 2 of the Agreement is amended to read as follows:

"The Closing of the Second Tranche (810,000 Units) will take place on April 10, 2013 (the "Second Closing Date")."

(b) The last sentence of Paragraph 2(a) is amended to read as follows:

"The Company shall apply the proceeds from the First Tranche and Second Tranche to (i) its obligations arising under or with respect to the Lease, (ii) other Company operating expenses, and (iii) expenses arising in connection with the Stem Cell Transaction, and the Company may advance proceeds, in whole or in part, to BAC to finance costs and expenses incurred by BAC in connection with the Stem Cell Transaction, and costs and expenses incurred by BAC prior to the closing of the Stem Cell Transaction."

(c) Paragraph 2(b) of the Agreement is amended by deleting the first sentence.

(d) Paragraph 2(d) of the Agreement is amended by deleting clause (v).

(e) A new paragraph 2(f) of the Agreement is added to read as follows:

"On the effective date of this Amendment, and in connection with the execution of this Amendment by Purchaser and the Company, the Company shall issue a press release substantially in the form attached hereto as Exhibit A."

2. Defined Terms. Unless otherwise defined in this Amendment, capitalized terms have the meaning ascribed in the Agreement.

3. Effect of Amendment. Except as amended by this Amendment, the Agreement remains in full force and effect.

IN WITNESS WHEREOF, the parties have executed this Amendment as of the date first above written.

Romulus Films Ltd.

By: */s/Jonathan Woolf*
Jonathan Woolf

Title: Director

BioTime, Inc.

By: */s/Michael D. West*
Michael D. West,
Chief Executive Officer

Exhibit A

Form of Press Release

BioTime and Romulus Agree to Accelerate Closing Date for Second Tranche of $5 Million Financing

A total of $17.6 million in new capital raised by BioTime and its subsidiaries since October 2012

ALAMEDA, Calif., March 7, 2013 - BioTime, Inc. (NYSE MKT: BTX) today announced it has amended its $5 million Stock and Warrant Purchase Agreement with Romulus Films, Ltd., originally signed on January 4, 2013. Through the amendment, BioTime and Romulus have agreed to accelerate the closing date for the $3 million second tranche of the $5 million financing. The first $2 million tranche under the agreement was funded in January 2013. The second tranche was originally intended to close later this year concurrent with the closing of the acquisition of certain stem cell assets by BioTime's subsidiary BioTime Acquisition Corporation (BAC) pursuant to an Asset Contribution Agreement among BioTime, BAC, and Geron Corporation. Under the amendment, the remaining $3 million investment in BioTime will be funded on April 10, 2013. Romulus has also committed to invest $5 million in BAC in conjunction with the consummation of the stem cell asset acquisition, which is expected to occur later this year.

BioTime plans to use the proceeds from this financing to fund its planned $5 million cash investment in BAC. BioTime will advance funds to BAC to finance BAC's continued progress in preparation for the completion of the stem cell asset acquisition transaction. Since Romulus and BioTime signed their agreement in January, a 24,000 sq. ft. research facility has been leased for use by BAC, and BAC has acquired equipment for its research facility, recruited experienced senior research and product development management personnel, and worked to establish relationships with academic institutions and potential commercial development partners.

BioTime has raised gross proceeds of approximately $14.6 million since October 2012, including the $2 million first tranche of the equity financing from Romulus, and approximately $12.6 million from the sale of approximately 2.9 million common shares at a weighted average price of $4.34 per share in the open market. The 2.9 million shares were sold through BioTime's $25 million Controlled Equity Offering facility with Cantor Fitzgerald & Co., as sales agent, and through the sale of BioTime shares held by its majority owned subsidiaries, LifeMap Sciences, Inc. and Cell Cure Neurosciences Ltd.

"These funds, plus the commitment from Romulus Films to invest $5 million in BAC upon closing the stem cell asset acquisition transaction, will significantly strengthen our balance sheet and our ability to execute on our operating plan over the coming year, including financing the initiation of planned clinical trials of *Renevia*™ and *PanC-Dx*™," said Peter Garcia, BioTime's Chief Financial Officer.

Jonathan Woolf, Director of Romulus Films, a United Kingdom based investment company, said, "As a significant and long-term investor in Geron Corporation, we are very pleased to be supporting BioTime and BAC in the acquisition of Geron's embryonic stem cell assets. We believe these assets, which had shown early success and were considered to be world-leading prior to discontinuation by Geron in late 2011, may have the potential to revolutionize medicine and provide untold benefits to patients in the future in many significant and unmet areas of disease prevention and cure. We are pleased with BAC's progress announced today, as well as the progress that BioTime and its subsidiaries have announced in recent months with their product development programs. To support these developments, we have agreed to accelerate part of our investment in BioTime. We believe that after the stem cell asset acquisition transaction is completed, BAC and the BioTime family of companies will hold the largest concentration of stem cell and regenerative medicine assets and experience in the world."

About BioTime, Inc.

BioTime, headquartered in Alameda, California, is a biotechnology company focused on regenerative medicine and blood plasma volume expanders. Its broad platform of stem cell technologies is enhanced through subsidiaries focused on specific fields of application. BioTime develops and markets research products in the fields of stem cells and regenerative medicine, including a wide array of proprietary *PureStem*™ cell lines, *HyStem*® hydrogels, culture media, and differentiation kits. BioTime is developing *Renevia*™ (formerly known as *HyStem*®*-Rx*), a biocompatible, implantable hyaluronan and collagen-based matrix for cell delivery in human clinical applications. BioTime's therapeutic product development strategy is pursued through subsidiaries that focus on specific organ systems and related diseases for which there is a high unmet medical need. BioTime's majority-owned subsidiary Cell Cure Neurosciences Ltd. is developing therapeutic products derived from stem cells for the treatment of retinal and neural degenerative diseases. BioTime's subsidiary OrthoCyte Corporation is developing therapeutic applications of stem cells to treat orthopedic diseases and injuries. Another subsidiary, OncoCyte Corporation, focuses on the diagnostic and therapeutic applications of stem cell technology in cancer, including the diagnostic product *PanC-Dx*™ currently being developed for the detection of cancer in blood samples. ReCyte Therapeutics, Inc. is developing applications of BioTime's proprietary induced pluripotent stem cell technology to reverse the developmental aging of human cells to treat cardiovascular and blood cell diseases. BioTime's subsidiary LifeMap Sciences, Inc. markets *GeneCards*®, the leading human gene database, as part of an integrated database suite that also includes the *LifeMap Discovery*™ database of embryonic development, stem cell research and regenerative medicine, and *MalaCards*, the human disease database. LifeMap Sciences also markets BioTime research products and *PanDaTox*, an innovative, recently developed, searchable database that can aid in the discovery of new antibiotics and biotechnologically beneficial products. BioTime Acquisition Corporation is a new subsidiary being used to acquire the stem cell assets of Geron Corporation, including patents and other intellectual property, biological materials, reagents, and equipment for the development of new therapeutic products for regenerative medicine. BioTime's lead product, *Hextend*®, is a blood plasma volume expander manufactured and distributed in the U.S. by Hospira, Inc. and in South Korea by CJ CheilJedang Corporation under exclusive licensing agreements. Additional information about BioTime can be obtained at www.biotimeinc.com.

Forward-Looking Statements

Statements pertaining to future financial and/or operating results, future growth in research, technology, clinical development, and potential opportunities for BioTime and its subsidiaries, along with other statements about the future expectations, beliefs, goals, plans, or prospects expressed by management constitute forward-looking statements. Any statements that are not historical fact (including, but not limited to statements that contain words such as “will,” “may” “believes,” “plans,” “anticipates,” “expects,” “estimates”) should also be considered to be forward-looking statements. Forward-looking statements involve risks and uncertainties, including, without limitation, risks inherent in the development and/or commercialization of potential products, uncertainty in the results of clinical trials or regulatory approvals, need and ability to obtain future capital, and maintenance of intellectual property rights. Actual results may differ materially from the results anticipated in these forward-looking statements and as such should be evaluated together with the many uncertainties that affect the business of BioTime and its subsidiaries, particularly those mentioned in the cautionary statements found in BioTime's Securities and Exchange Commission filings. BioTime disclaims any intent or obligation to update these forward-looking statements.

To receive ongoing BioTime corporate communications, please click on the following link to join our email alert list: http://phx.corporate-ir.net/phoenix.zhtml?c=83805&p=irol-alerts

Contact:

BioTime, Inc.
Peter Garcia
Chief Financial Officer
510-521-3390, ext 367
pgarcia@biotimemail.com

or

Judith Segall
510-521-3390, ext 301
jsegall@biotimemail.com

Exhibit 21.1

BIOTIME, INC. SUBSIDIARIES

Subsidiary	Jurisdiction of Incorporation or Organization
ReCyte Therapeutics, Inc.	California
OncoCyte Corporation	California
OrthoCyte Corporation	California
LifeMap Sciences, Inc.	California
BioTime Acquisition Corporation	Delaware
ES Cell International Pte. Ltd.	Singapore
BioTime Asia, Limited	Hong Kong
Cell Cure Neurosciences, Ltd.	Israel
LifeMap Sciences, Ltd.	Israel

EXHIBIT 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements and related Prospectuses of BioTime, Inc. and Subsidiaries (collectively, the "Company") on Form S-2 (Registration Nos. 333-128083 and 333-109442), Form S-3 (Registration Nos. 333-166862, 333-167822, 333-174282, 333-182964 and 333-183557), and Form S-8 (Registration Nos. 333-101651 and 333-163396) of our report dated March 18, 2013, with respect to the consolidated financial statements of the Company and the effectiveness of internal control over financial reporting of the Company, included in this Annual Report (Form 10-K) for the year ended December 31, 2012.

/s/ Rothstein Kass
New York, New York
March 18, 2013

Exhibit 31

CERTIFICATIONS

I, Peter S. Garcia, certify that:

1. I have reviewed this annual report on Form 10-K of BioTime, Inc.;

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 and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rule 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 periodic 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 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 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 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.

Date: March 18, 2013

/s/ Peter S. Garcia
Peter S. Garcia
Chief Financial Officer

Exhibit 31

CERTIFICATIONS

I, Michael D. West, certify that:

1. I have reviewed this annual report on Form 10-K of BioTime, Inc.;

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 and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rule 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 periodic 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 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 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 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.

Date: March 18, 2013

/s/ Michael D. West
Michael D. West
Chief Executive Officer

Exhibit 32

CERTIFICATION PURSUANT TO 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 on Form 10-K of BioTime, Inc. (the "Company") for the year ended December 31, 2012 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), we, Michael D. West, Chief Executive Officer, and Peter S. Garcia, Chief Financial Officer 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, that:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 18, 2013

/s/ Michael D. West
Michael D. West
Chief Executive Officer

/s/ Peter S. Garcia
Peter S. Garcia
Chief Financial Officer