BIOTIME INC
Form S-3/A
August 14, 2012

As filed with the Securities and Exchange Commission on August 14 , 2012

Registration No. 333-182964

SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

Amendment No. 1
to
FORM S-3

REGISTRATION STATEMENT UNDER
THE SECURITIES ACT OF 1933

BIOTIME, INC.
(Exact name of Registrant as specified in charter)

California	94-3127919
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification Number)
1301 Harbor Bay Parkway, Suite 100 Alameda, California 94502 (510) 521-3390	Judith Segall, Vice-President and Secretary BioTime, Inc. 1301 Harbor Bay Parkway, Suite 100 Alameda, California 94502 (510) 521-3390
(Address, including zip code, and telephone number, including area code, of Registrant's principal executive offices)	(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies of all communications, including all communications sent to the agent for service, should be sent to:
RICHARD S. SOROKO, ESQ.
Thompson, Welch, Soroko & Gilbert LLP
3950 Civic Center Drive, Suite 300
San Rafael, California 94903
Tel. (415) 448-5000

Approximate date of commencement of proposed sale to the public: As soon as practicable after this Registration Statement becomes effective.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box. o

If any of the securities being registered on this form are to be offered on a delayed or continuous basis pursuant to Rule 415 of the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box. x

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

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

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box. o

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box. 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 Securities Exchange Act of 1934. (Check one):

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

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

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

Subject to Completion, Dated August 14 , 2012

PROSPECTUS

BIOTIME, INC.
868,429 Common Shares

This prospectus relates to 448,429 BioTime common shares held by the selling security holders named in this prospectus, and 420,000 BioTime common shares held by our subsidiary LifeMap Sciences, Inc. The selling security holders acquired their common shares from us in connection with the merger of Xennex, Inc. into our subsidiary LifeMap Sciences, Inc. All of the net proceeds from the sale of the common shares by the selling security holders will belong to the selling security holders and not to us.

The BioTime common shares being offered by LifeMap Sciences through this prospectus were acquired by LifeMap Sciences from one of our directors and principal shareholders and certain of his affiliates pursuant to an agreement in which LifeMap Sciences agreed to issue shares of its common stock in exchange for BioTime shares. All of the net proceeds from the sale of the BioTime common shares held by LifeMap Sciences will belong to LifeMap Sciences. See “Use of Proceeds” on page 22. LifeMap Sciences is an "underwriter" as defined in the Securities Act of 1933, as amended (the "Securities Act"), with respect to the BioTime common shares being offered for its account.

The common shares are quoted on the NYSE MKT under the symbol BTX. The closing price of the common shares on the NYSE MKT on August 13, 2012 was $3.96.

These securities involve a high degree of risk and should be purchased only by persons who can afford the loss of their entire investment. See ‘‘Risk Factors’’ on page 8.

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

The date of this prospectus is August ___, 2012

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PROSPECTUS SUMMARY

The following summary explains only some of the information in this prospectus. More detailed information and financial statements appear elsewhere in this prospectus. Statements contained in this prospectus 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,” “pla “believes,” “seeks,” “estimates,” and similar expressions identify forward-looking statements. See “Risk Factors.” References to “we” means BioTime, Inc, and its subsidiaries unless the context otherwise requires.

BioTime, Inc.

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 ACTCellerate™ cell lines and associated ESpan™ culture media, HyStem® hydrogels, human embryonic stem cell lines, and royalties from Hextend®. Potential near term therapeutic product opportunities include Renevia™ (formerly known as HyStem®-Rx) as a cell delivery device expected to launch 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.

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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 www.biotimeinc.com. We also market human embryonic progenitor cell ("hEPCs") 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 ACTCellerate™ cell lines are also available for purchase through www.biotimeinc.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 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 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 and is 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.

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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. Our goal is to initiate clinical trials in the European Union by late 2012 for CE marking.

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 before seeking regulatory approvals required to market the product in the U.S. and other countries.

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.

The following table shows our subsidiaries, their respective principal fields of business, our percentage ownership, 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%	Israel
ReCyte Therapeutics, Inc. (formerly Embryome Sciences, Inc.)	Blood and vascular diseases including coronary artery disease Endothelial progenitor cells and 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.		77.1%	USA

	Searchable online databases for research in the fields of biotechnology, pharmaceutical development, and life sciences		
LifeMap Sciences, Ltd.	Development of LifeMap database and therapeutic discovery activities	(1)	Israel

(1) LifeMap Sciences, Ltd. is a wholly-owned subsidiary of LifeMap Sciences, Inc.

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Initially, we developed blood plasma volume expanders and related technology for use in surgery, emergency trauma treatment, and other applications. Our lead blood plasma expander product, Hextend®, is a physiologically balanced intravenous solution used in the treatment of hypovolemia, a condition caused by low blood volume, often from blood loss during surgery or injury. Hextend® maintains circulatory system fluid volume and blood pressure, and keeps vital organs perfused during surgery and trauma care. Hextend® is manufactured and distributed in the U.S. by Hospira, Inc., and in South Korea by CJ CheilJedang ("CJ") Corporation, under license from us.

Additional Information

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

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.

Stem Cells and Products for Regenerative Medicine Research

We now offer 96 ACTCellerate™ hEPC lines and six hES cell lines developed under cGMP by our subsidiary ESI for sale, and hES cell lines carrying inherited genetic diseases. We offer our research products for sale through our website www.biotimeinc.com, and we anticipate adding additional cell lines and related ESpan™ growth media and differentiation kits over time. 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 plan to make LifeMap Sciences our principal marketing subsidiary for these research products. LifeMap Sciences currently 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 also plans to market 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. Millipore Corporation also is an authorized distributor of certain ACTCellerate™ hEPC lines and related ESpan™ growth media.

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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.

Offering Summary

Common Shares Offered	448,429 outstanding BioTime common shares are being offered by the selling security holders. 420,000 outstanding BioTime common shares are being offered by our subsidiary LifeMap Sciences.
Common Shares Outstanding	50,790,391 shares as of June 30, 2012.

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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 six months ended June 30, 2012 and for the fiscal years ended December 31, 2011, 2010 and 2009 were $10,487,980, $17,535,587, $10,287,280, and $5,144,499, respectively, and we had an accumulated deficit of $90,889,131 as of June 30, 2012, and $80,470,009, $63,954,509, and $52,769,891, as of December 31, 2011, 2010, and 2009, 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. 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 $8,773,302 during the six months ended June 30, 2012, and $13,699,691, $8,191,314, and $3,181,729 during the fiscal years ended December 31, 2011, 2010, and 2009, 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.

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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 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 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 United States 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.

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- 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.

- 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.

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- 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 June 30, 2012, we had $12,659,843 of cash and cash equivalents on hand. 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 may have to postpone some 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. The loss of Dr. West’s services 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

Despite our acquisitions of ESI in 2010, Glycosan BioSystems, Inc. and Cell Targeting, Inc. in 2011, and Xennex, Inc. in 2012, we have limited experience in independently identifying acquisition candidates and integrating the operations of acquisition candidates with our company. 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.

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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 the 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.

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.

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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 United States Food and Drug Administration ("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 and foreign regulatory 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 an application for approval of a new drug 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.

Government-imposed 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 restrictions with respect to the use of embryos or human embryonic stem cells in research and development could limit our ability to conduct research and develop new products.

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- Government-imposed restrictions on the use of embryos or hES cells in the United States 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 National Institutes of Health ("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. A lawsuit, Sherley v. Sebelius, is now pending, challenging the legality of the new NIH guidelines. In that litigation, a United States District Court issued a temporary injunction against the implementation of the new NIH guidelines, but the District Court's ruling was vacated by the United States Court of Appeals. The plaintiffs in the case have filed an appeal, and the ultimate resolution of that lawsuit could determine whether the federal government may fund research using hES cells, unless new legislation is passed expressly permitting or prohibiting such funding.

- California law requires that stem cell research be conducted under the oversight of a stem cell research oversight committee ("SCRO"). 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 United States 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.

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- 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 United States 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 human embryonic stem 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 human embryonic stem 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 are waiting to see if the United States Patent and Trademark Office will issue any new guidelines 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.

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- A patent interference proceeding may be instituted with the United States Patent and Trademark Office ("U.S. 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. 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.

- Oppositions to the issuance of patents may be filed under European patent law and the patent laws of certain other countries. As with the U.S. 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 in the United States, 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, 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 U.S. 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.

We may be subject to patent infringement claims that could be costly to defend, which may limit our ability to use disputed technologies, and which could prevent us from pursuing research and development or commercialization of some of our products

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.

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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 United States, 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.

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Risks Related to our Dependence on Third Parties

We may become dependent on our collaborative arrangements with third parties for a substantial portion of our revenue, and our development and commercialization activities may be delayed or reduced if we fail to initiate, negotiate or maintain successful collaborative arrangements.

We may become dependent on possible future collaborators 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. If we fail to secure or maintain successful collaborative arrangements, our development and commercialization activities will be delayed, reduced or terminated, and our revenues could be materially and adversely impacted. Over the next several years, we may depend on these types of collaboration partnerships for a significant portion of our revenue. 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. These collaborative agreements might be terminated either by us or by our partners upon the satisfaction of certain notice requirements. Our partners may not be precluded from independently pursuing competing products and drug delivery approaches or technologies. Even if our partners continue their contributions to our collaborative arrangements, of which there can be no assurance, they may nevertheless determine not to actively pursue the development or commercialization of any resulting products. Our partners may fail to perform their obligations under the collaborative arrangements or may be slow in performing their obligations. In addition, our partners may experience financial difficulties at any time that could prevent them from having available funds to contribute to these collaborations. If our collaboration partners fail to conduct their commercialization, regulatory compliance, sales and marketing or distribution activities successfully and in a timely manner, or if they terminate or materially modify their 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 contract sales companies for commercial sale of those products. Even if we find a potential marketing partner, of which there can be no assurance, we may not be able to negotiate a licensing or marketing contract on favorable terms to justify our investment or achieve adequate revenues.

Risks Pertaining to Our Common Shares

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

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

- The market price of our shares, like that of the shares of many biotechnology companies, has been highly volatile.

- The price of our shares may rise rapidly in response to certain events, such as the commencement of clinical trials of an experimental new drug, even though the outcome of those trials and the likelihood of ultimate FDA approval remain uncertain.

- Similarly, prices of our shares may fall rapidly in response to certain events such as unfavorable results of clinical trials or a delay or failure to obtain FDA approval.

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- 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 stock 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 shares of 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 June 30, 2012, there were 50,790,391 common shares outstanding, 3,433,802 common shares reserved for issuance upon the exercise of outstanding options under our employee stock option plans, and 636,613 shares reserved for issuance upon the exercise of common share purchase warrants. No preferred shares are presently outstanding.

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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, or 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.

MARKET FOR OUR COMMON EQUITY

BioTime common shares were traded on the American Stock Exchange from August 31, 1999 until July 14, 2005; were quoted on the OTC Bulletin Board ("OTCBB") under the symbol BTIM from July 15, 2005 until October 29, 2009; and were relisted on the NYSE MKT (formerly, the NYSE Amex) on October 30, 2009. On October 12, 2010, BioTime changed its ticker symbol to 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, 2010 and 2011, and the fiscal quarter ended June 30, 2012, based on transaction data as reported by the OTCBB and NYSE MKT:

Quarter Ended	High	Low
March 31, 2010	$8.42	$4.27
June 30, 2010	$8.20	$5.25
September 30, 2010	$6.50	$4.02
December 31, 2010	$9.94	$4.73
March 31, 2011	$9.53	$6.08
June 30, 2011	$7.92	$4.11
September 30, 2011	$5.94	$4.01
December 31, 2011	$6.20	$3.55
March 31, 2012	$6.35	$4.41
June 30, 2012	$4.83	$3.35

Over-the-counter market quotations may reflect inter-dealer prices, without retail mark-up, mark-down, or commission, and may not necessarily represent actual transactions.

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As of February 13, 2012, there were 14,635 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, 2011:

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	3,408,905	$ 2.18	1,303,193
BioTime Equity Compensation Plans Not Approved by Shareholders*	130,000	$ 5.76	-

*We have granted 130,000 warrants to certain consultants for providing services to us. These warrants were issued without registration under the Securities Act of 1933, as amended, in reliance upon the exemption provided by Section 4(2) thereunder.

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, 2011:

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**	2,355,000	$ 0.08	1,645,000
OncoCyte Equity Compensation Plans Approved by Shareholders**	2,730,000	$ 0.75	1,270,000
ReCyte Therapeutics Equity Compensation Plans Approved by Shareholders**	1,050,000	$ 2.05	2,950,000
BioTime Asia Equity Compensation Plans Approved by Shareholders**	400	$ 0.01	1,200
Cell Cure Neurosciences Compensation Plans Approved by Shareholders**	23,978	$ 27.94	1,860
LifeMap Sciences Equity Compensation Plans Approved by Shareholders**	2,650,000(1)	$ 0.08	5,350,000

(1)

Before adjustments made during May 2012 to reflect a one-for-four reverse stock split and certain other adjustments to option grants

** BioTime is the majority shareholder.

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Additional information concerning our stock option plan and the stock options of our subsidiaries may be found in Note 10 to Consolidated Financial Statements contained in our Annual Report on Form 10-K for the year ended December 31, 2011 which is incorporated by reference into this prospectus.

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.

USE OF PROCEEDS

All of the common shares are being sold by selling security holders identified in this prospectus. All of the net proceeds from the sale of the BioTime common shares by the selling security holders will belong to the selling security holders and not to us.

The net proceeds from the sale of BioTime common shares by LifeMap Sciences will be used in its operations. The amount of net proceeds that may become available to LifeMap Sciences from time to time cannot presently be determined and will depend upon the prices at which LifeMap Sciences is able to sell its BioTime common shares.

The following discussion represents only a general plan for the allocation of the net proceeds of the sale of BioTime common shares based upon the current state of LifeMap Sciences' marketing and product development programs. The timeframe in which LifeMap Sciences will sell BioTime common shares and use the proceeds will depend upon a variety of factors, such as the amount of revenues it receives from marketing its online database products and BioTime research products, the pace at which it makes progress in its research and development programs, and any opportunities to acquire new products and technologies, or to enter into new market segments that may arise.

Database Development and Marketing. LifeMap Sciences expects to use a portion of the net proceeds to fund the continued development of its online stem cell database LifeMap,™ and marketing all of its database products, including GeneCards, and the market launch of the PanDaTox and MalaCards online databases.

Research Product Marketing. A portion of the net proceeds will be used by LifeMap Sciences to fund expenses of marketing BioTime research products, primarily online through LifeMap Sciences' website. We plan to make LifeMap Sciences as our primary subsidiary for the marketing and sale of our research products, under arrangements that will provide for a sharing of product sales net revenues between LifeMap Sciences and us.

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Identification and Development of Cell Lines for Therapeutic Products. Net proceeds will also be used by LifeMap Sciences to fund research on ACTCellerate™ hEPC lines using the LifeMap Sciences' database products and proprietary algorithms to analyze gene expression data, with the goal of identifying those hEPCs that have greatest potential for use in the development of cell-based therapies for degenerative diseases. One or more hEPC lines identified as candidates for therapeutic product development may be selected by us for development by ourselves or by one or more of our subsidiaries, including by LifeMap Sciences, directly or through collaborative or licensing arrangements with third parties.

General and Administrative Expenses. LifeMap Sciences may use proceeds from the sale of BioTime shares to defray overhead expenses and to fund opportunities and contingencies that might arise, including the payment of costs incurred in retaining various personnel or securing various services necessary to support the advancement of its product marketing and research and development programs. A portion of the salaries, benefits, and fees of employees and consultants who assist in the marketing of products and the development of new products, or in the preparation of patent applications on new discoveries or inventions, will also be allocable to general and administrative costs. LifeMap Sciences' general and administrative expenses will increase as it expands its research product marketing efforts, institutes new research and development programs, and achieves progress in developing or acquiring new products and bringing them to market.

Repayment of Advances from BioTime. Pending the sale of BioTime common shares by LifeMap Sciences, we may advance funds to LifeMap Sciences to defray its operating costs and expenses. LifeMap Sciences may use proceeds from the sale of its BioTime common shares to repay any funds that we advance.

The development of new research and medical products and technologies often involves complications, delays, and costs that cannot be predicted, and may cause LifeMap Sciences to make a reallocation of proceeds among the categories shown above or to other uses. LifeMap Sciences may need to raise additional capital to pay operating expenses until such time as it is able to generate sufficient revenues from product sales, royalties, and license fees.

Until used, the net proceeds received by LifeMap Sciences from the sale of its BioTime common shares will be invested in certificates of deposit, United States government securities, or other high quality, short-term, interest-bearing investments.

DESCRIPTION OF SECURITIES

Common Shares

Our Articles of Incorporation currently authorize the issuance of up to 75,000,000 common shares, no par value, of which 50,790,391 shares were outstanding at June 30, 2012. As of February 13, 2012, there were 14,635 holders of the common shares based on the share position listings. Each holder of record is entitled to one vote for each outstanding common share owned by him on every matter properly submitted to the shareholders for their vote.

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Subject to the dividend rights of holders of any of the preferred shares that may be issued from time to time, holders of common shares are entitled to any dividend declared by the Board of Directors out of funds legally available for that purpose. We have not paid any cash dividends on our common shares, and it is unlikely that any cash dividends will be declared or paid on any common shares in the foreseeable future. Instead, we plan to retain our cash for use in financing our future operations and growth.

Subject to the prior payment of the liquidation preference to holders of any preferred shares that may be issued, holders of common shares are entitled to receive on a pro rata basis all of our remaining assets available for distribution to the holders of common shares in the event of the liquidation, dissolution, or winding up of our operations. Holders of common shares do not have any preemptive rights to become subscribers or purchasers of additional shares of any class of our capital stock.

Transfer Agent

The transfer agent and registrar for the common shares is American Stock Transfer and Trust Company, 6201 15th Avenue, Brooklyn, New York 11219.

Preferred Shares

Our Articles of Incorporation currently authorize the issuance of up to 1,000,000 preferred shares, no par value. We may issue preferred shares in one or more series, at any time, with such rights, preferences, privileges and restrictions as the Board of Directors may determine, all without further action of our shareholders. Any series of preferred shares which may be authorized by the Board of Directors in the future may be senior to and have greater rights and preferences than the common shares. There are no preferred shares presently outstanding and we have no present plan, arrangement, or commitment to issue any preferred shares.

Warrants

There are no warrants offered in this prospectus. We have issued and outstanding 636,613 warrants that have exercise prices, and expiration dates shown in the following table.

Number of Warrants	Shares Issuable(1)	Exercise Price(1)	Expiration Date
80,000	80,000	$ 3.00	September 23, 2012
50,000	50,000	$ 10.00	April 24, 2014
300,000	300,000	$ 10.00	May 2, 2014
206,613	206,613	$ 10.00	May 2, 2014

(1) The number of common shares and exercise price will be proportionally adjusted in the event of a stock split, stock dividend, combination, or similar recapitalization of the common shares.

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RESALE OF SHARES

The common shares offered by this prospectus are being registered for sale for the account of the holders of those securities. The security holders other than LifeMap Sciences for whose account common shares are being registered through this prospectus are sometimes referred to in this prospectus as "selling security holders" unless specifically identified by name, and information about them and the common shares that they may sell through this prospectus is discussed in this section. The selling security holders may elect to sell some or all of their common shares in reliance upon Rule 144 under the Securities Act, rather than through this prospectus and the registration statement of which this prospectus is a part.

Plan of Distribution

Sale of Shares by Certain Selling Security Holders

We issued 448,429 of the common shares offered by this prospectus to the selling security holders in connection with the merger of Xennex, Inc. with our subsidiary LifeMap Sciences, Inc., which was wholly-owned by us before the merger.

The selling security holders who acquired common shares through the merger of Xennex into LifeMap Sciences have advised us that they may hold their common shares for investment purposes, or they may sell their common shares from time to time on the NYSE MKT at prevailing market prices, or at prices related to the prevailing market price, or in privately negotiated transactions.

The selling security holders will bear all broker-dealer commissions payable in connection with the sale of their common shares. Broker-dealers who acquire common shares from the selling security holders as principals may resell the common shares from time to time in transactions on the NYSE MKT, or may resell the common shares in negotiated transactions at negotiated prices, and may receive usual and customary commissions from the purchasers of the shares.

The selling security holders and any broker-dealers who participate in the sale of common shares may be deemed to be "underwriters" as defined in the Securities Act. Any commissions paid or any discounts or concessions allowed to any broker-dealers in connection with the sale of the common shares and any profits received on the resale of any common shares purchased by broker-dealers as principals, may be deemed to be underwriting discounts and commissions under the Securities Act. Under a Registration Rights Agreement, we have agreed to indemnify the selling security holders against certain liabilities related to the sale of their common shares, including certain liabilities arising under the Securities Act.

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Selling security holders David Warshawsky, Kenneth Elsner and Yaron Guan-Golan have advised us that during the time that they may be engaged in a distribution of their common shares they will (a) not engage in any stabilization activity in connection with our securities, (b) cause to be furnished to each broker through whom their shares may be offered the number of copies of this prospectus required by the broker, and (c) not bid for or purchase any of our securities, or attempt to induce any person to do so, other than as permitted under the Exchange Act. Each of the selling security holders have agreed to comply with the Securities Act of 1933, as amended, and the Securities Exchange Act of 1934 , as amended, and all applicable state securities laws and comply with all applicable regulations in connection with the disposition of their BioTime common shares.

The following table shows the number of our common shares beneficially owned by each of the selling security holders prior to this offering, the maximum number of common shares that may be sold by them through this prospectus, and the amount and percentage of the outstanding common shares that will be owned by each of the selling security holders if the selling security holders sell all of the shares registered for their respective accounts:

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Name	Shares Owned Before Offering	Shares Offered	Shares Owned After Offering	Percentage of Outstanding Common Shares Owned After Offering
David Warshawsky	207,399	207,399	--	--
Yaron Guan-Golan	111,995	111,995	--	--
Kenneth Elsner	95,768	95,403	365	*
Yeda Research and Development Company, Ltd.	33,632	33,632	--	--

*less than 1% of outstanding common shares

Sale of Shares by LifeMap Sciences

The 420,000 BioTime common shares being offered by LifeMap Sciences through this prospectus were acquired by LifeMap Sciences from one of our directors and principal shareholders and certain of his affiliates pursuant to an agreement in which LifeMap Sciences agreed to issue shares of its common stock in exchange for BioTime shares. All of the net proceeds from the sale of the BioTime common shares held by LifeMap Sciences will belong to LifeMap Sciences. See “Use of Proceeds” on page 22.

LifeMap Sciences may sell its BioTime common shares from time to time on the NYSE MKT at prevailing market prices, or at prices related to the prevailing market price, or in privately negotiated transactions or through block trades in which the broker-dealer will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction, or through one more of the foregoing transactions.

LifeMap Sciences will bear all broker-dealer commissions payable in connection with the sale of its BioTime common shares. Broker-dealers who acquire BioTime common shares from LifeMap Sciences as principals may resell the common shares from time to time in transactions on the NYSE MKT, or may resell the common shares in negotiated transactions at negotiated prices, and may receive usual and customary commissions from the purchasers of the shares. Broker-dealers engaged by LifeMap Sciences may arrange for other brokers-dealers to participate in sales. Broker-dealers may receive commissions or discounts from LifeMap Sciences (or, if any broker-dealer acts as agent for the purchaser of shares, from the purchaser) in amounts to be negotiated.

LifeMap Sciences is, and any broker-dealer who participates in the sale of BioTime common shares by LifeMap Sciences will be, an "underwriter" as defined in the Securities Act. Any commissions paid or any discounts or concessions allowed to any broker-dealers in connection with the sale of the common shares and any profits received on the resale of any common shares purchased by broker-dealers as principals, may be deemed to be underwriting discounts and commissions under the Securities Act.

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During the time that LifeMap Sciences may be engaged in a distribution of its BioTime common shares it will (a) not engage in any stabilization activity in connection with our securities, (b) cause to be furnished to each broker through whom the shares may be offered the number of copies of this prospectus required by the broker, and (c) not bid for or purchase any of our securities, or attempt to induce any person to do so, other than as permitted under the Exchange Act.

The following table shows the number of our common shares beneficially owned by LifeMap Sciences prior to this offering, the maximum number of common shares that may be sold by LifeMap Sciences through this prospectus, and the amount and percentage of the outstanding common shares that will be owned by LifeMap Sciences if it sells all of the shares registered for its account:

Name	Shares Owned Before Offering	Shares Offered	Shares Owned After Offering	Percentage of Outstanding Common Shares Owned After Offering
LifeMap Sciences, Inc.	420,000	420,000	--	--

LEGAL MATTERS

The validity of the common shares offered by the selling security holders will be passed upon for BioTime by Thompson, Welch, Soroko & Gilbert LLP, San Francisco and San Rafael, California. A member of Thompson, Welch, Soroko & Gilbert LLP holds 10,000 BioTime common shares.

EXPERTS

The financial statements incorporated in this prospectus by reference from BioTime's Annual Report on Form 10-K for the years ended December 31, 2011 and 2010 have been audited by Rothstein Kass, independent registered public accounting firm, to the extent and for the periods set forth in their report incorporated herein by reference, and are incorporated herein in reliance upon such report given upon the authority of said firm as experts in accounting and auditing.

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INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

Our Annual Report on Form 10-K for the fiscal year ended December 31, 2011, our Quarterly Reports on Form 10-Q for the three months ended March 31, 2012 and June 30, 2012, and our Current Reports on Form 8-K filed by us with the Securities and Exchange Commission on the following dates are hereby incorporated into this prospectus by reference: January 3, 2012; January 24, 2012; April 20, 2012; April 25, 2012; May 21, 2012, June 29, 2012, July 26, 2012, August 1, 2012 and August 9, 2012. All other documents subsequently filed by us pursuant to Sections 13(a), 13(c), 14, or 15(d) of the Securities Exchange Act of 1934, as amended, prior to the termination of the offering covered by this prospectus shall be deemed incorporated into this prospectus by reference. A description of the common shares contained in a Registration Statement on Form 8-A filed under the Securities Exchange Act of 1934, as amended, is also incorporated into this prospectus by reference. We will provide without charge to each person, including any beneficial owner, to whom a prospectus is delivered, upon written or oral request of such person, a copy of any and all of the information that has been incorporated by reference but not delivered with this prospectus. Such requests may be addressed to the Secretary of BioTime at 1301 Harbor Bay Parkway, Suite 100, California 94502; Telephone: (510) 521-3390. The reports and other documents incorporated by reference may be accessed at our internet website www.biotimeinc.com.

WHERE YOU CAN FIND MORE INFORMATION

We are subject to the informational requirements of the Securities Exchange Act of 1934, as amended, and in accordance therewith file quarterly, annual, and current reports and proxy statements and other information with the Securities and Exchange Commission. The public may read and copy any materials we file with Securities and Exchange Commission at the Commission's Public Reference Room at 100 F Street N.E., Washington, D.C. 20549. The public may obtain information on the operation of the Public Reference Room by calling the Commission at 1-800-SEC-0330.

The Commission maintains an Internet site that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the Commission. The address of such site is http://www.sec.gov.

We make available free of charge on or through our Internet website www.biotimeinc.com our annual report on Form 10–K, quarterly reports on Form 10–Q, current reports on Form 8–K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act as soon as reasonably practicable after we electronically file such material with, or furnish it to, the Commission.

We have filed with the Securities and Exchange Commission, 100 F Street N.E., Washington, D.C. a registration statement on Form S-3 under the Securities Act for the registration of the shares offered by this prospectus. This prospectus, which is part of the registration statement, does not contain all of the information contained in the registration statement. For further information with respect to us and the securities offered by this prospectus, you should refer to the registration statement, including the exhibits thereto, which may be inspected, without charge, at the Office of the Securities and Exchange Commission, or copies of which may be obtained from the Commission in Washington, D.C. upon payment of the requisite fees. Statements contained in this prospectus as to the content of any contract or other document referred to are not necessarily complete. In each instance reference is made to the copy of the contract or other document filed as an exhibit to the registration statement, and each such statement is qualified in all respects by reference to the exhibit.

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No dealer, salesperson or other person has been authorized in connection with this offering to give any information or to make any representations other than those contained in this Prospectus. This Prospectus does not constitute an offer or a solicitation in any jurisdiction to any person to whom it is unlawful to make such an offer or solicitation. Neither the delivery of this Prospectus nor any sale made hereunder shall, under any circumstances, create an implication that there has been no change in the circumstances of BioTime or the facts herein set forth since the date hereof.

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868,429 Common Shares

PROSPECTUS

August ____, 2012

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PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution.

The estimated expenses of the Registrant in connection with the issuance and distribution of the securities being registered hereby are as follows:

Registration Fee-Securities and Exchange Commission	$ 409.04
Stock Exchange Listing Fees	$ 10,000.00
Printing and Engraving Expenses	$ 1,500.00
Accounting Fees	$ 5,000.00
Legal Fees	$ 10,000.00
Miscellaneous Expenses	$ 2,500.00
Total	$ 29,409.04

Item 15. Indemnification of Directors and Officers.

Section 317 of the California Corporations Code permits indemnification of directors, officers, employees and other agents of corporations under certain conditions and subject to certain limitations. In addition, Section 204(a)(10) of the California Corporations Code permits a corporation to provide, in its articles of incorporation, that directors shall not have liability to the corporation or its shareholders for monetary damages for breach of fiduciary duty, subject to certain prescribed exceptions. Article Four of the Articles of Incorporation of the Registrant contains provisions for the indemnification of directors, officers, employees and other agents within the limitations permitted by Section 317 and for the limitation on the personal liability of directors permitted by Section 204(b)(10), subject to the exceptions required thereby.

Item 16. Exhibits and Financial Statement Schedules.

Exhibit Numbers	Description
4.1	Specimen of Common Share Certificate (1)
4.2	Share Exchange and Contribution Agreement, dated July 24, 2012, among LifeMap Sciences, Inc., Alfred D. Kingsley, and Greenway Partners, L.P.†
5	Opinion of Counsel†
23.1	Consent of Rothstein Kass*
23.3	Consent of Counsel (Included in Exhibit 5)

(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.

† Previously filed.

* Filed herewith.

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Item 17. Undertakings.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers, and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by final adjudication of such issue.

The undersigned undertakes:

(1) To file during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20% change in the maximum aggregate offering price set forth in the “Calculation of Registration Fee” table in the effective registration statement.;

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

Provided, however, That:

(B) Paragraphs (a)(1)(i), (a)(1)(ii) and (a)(1)(iii) of this section do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to section 13 or section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

(2) That for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(5) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:

(i) If the registrant is relying on Rule 430B (§230.430B of this chapter):

(A) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

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(B) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date; or

(ii) If the registrant is subject to Rule 430C, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

(6) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities:

The undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;

(ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;

(iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

(iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to section 13(a) or section 15(d) of the Securities Exchange Act of 1934 that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

The undersigned registrant hereby undertakes that:

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(1) For purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b) (1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.

(2) For the purpose of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

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SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant has duly caused this Amendment to the Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Alameda, State of California on August 13 , 2012.

BIOTIME, INC.

By /s/ Michael D. West
Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, this Amendment to the Registration Statement has been signed below by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Michael D. West MICHAEL D. WEST, PH.D.	Chief Executive Officer and Director (Principal Executive Officer)	August 13 , 2012
/s/ Peter S. Garcia PETER S. GARCIA	Chief Financial Officer (Principal Financial and Accounting Officer)	August 13 , 2012
NEAL C. BRADSHER	Director	August , 2012
ARNOLD I. BURNS	Director	August , 2012
/s/ Abraham E. Cohen ABRAHAM E. COHEN	Director	August 13 , 2012
/s/ Alfred D. Kingsley ALFRED D. KINGSLEY	Director	August 13 , 2012
/s/ Pedro Lichtinger PEDRO LICHTINGER	Director	August 13 , 2012
/s/ Judith Segall JUDITH SEGALL	Director	August 13 , 2012
/s/ Andrew C. von Eschenbach ANDREW C. von ESCHENBACH	Director	August 13 , 2012