

**UNITED STATES SECURITIES AND EXCHANGE COMMISSION**

**Washington, DC 20549**

**Form S-3**

**REGISTRATION STATEMENT UNDER  
THE SECURITIES ACT OF 1933**

**BIOTIME, INC.**

*(Exact name of registrant as specified in its charter)*

**California**

*(State or other jurisdiction of incorporation or organization)*

**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 Office)*

**94-3127919**

*(I.R.S. Employer Identification Number)*

**Peter S. Garcia  
Chief Financial Officer  
BioTime, Inc.  
1301 Harbor Bay Parkway, Suite 100  
Alameda, California 94502  
(510) 521-3390**

*(Name, Address, Including Zip Code, and Telephone Number,  
Including Area Code, of Agent for Service)*

**Copies 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:** From time to time or at one time after the effective date of this Registration Statement as the registrant shall determine.

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

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

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

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

If this form is a 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.

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.

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

Large accelerated filer

Non-accelerated filer  (do not check if a smaller reporting company)

Accelerated Filer

Smaller reporting company

**CALCULATION OF REGISTRATION FEE**

Title of Each Class of Securities to be Registered	Proposed Maximum Aggregate Offering Price(1)(2)	Amount of Registration Fee(3)
Common Shares (no par value)		
Preferred Shares (no par value)		
Debt Securities		
Warrants		
Units		
Rights		
<b>TOTALS:</b>	\$75,000,000	\$8,595

- (1) There are being registered hereunder an indeterminate number of common shares and preferred shares, an indeterminate principal amount of debt securities, an indeterminate number of warrants to purchase common shares, preferred shares and/or debt securities, an indeterminate number of units, and an indeterminate number of rights to purchase an indeterminate number of common shares and/or preferred shares, from time to time, which together shall have an aggregate initial offering price not to exceed \$75,000,000. If any debt securities are issued at an original issue discount, then the offering price of the debt securities shall be a principal amount at maturity that, when aggregated with the dollar amount of all securities previously issued hereunder does not exceed \$75,000,000. Any securities registered hereunder may be sold separately or as units with other securities registered hereunder. The proposed maximum initial offering price per unit will be determined, from time to time, by the registrant. The securities registered also include an indeterminate number of common shares and preferred shares and principal amount of debt securities as may be issued upon conversion of or exchange for preferred shares or debt securities that provide for conversion or exchange, upon exercise of warrants or pursuant to the antidilution provisions of any the securities registered hereunder. In addition, pursuant to Rule 416 under the Securities Act, the shares being registered hereunder include an indeterminate number of common shares and preferred shares as may be issuable with respect to the shares being registered hereunder as a result of stock splits, stock dividends or similar transactions.
- (2) Not specified as to each class of securities to be registered, pursuant to General Instruction II.D of Form S-3 under the Securities Act of 1933, as amended.
- (3) Calculated in accordance with Rule 457(o) under the Securities Act of 1933, as amended.

**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, as amended, or until the Registration Statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.**

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.

**PROSPECTUS, SUBJECT TO COMPLETION, DATED AUGUST 24, 2012**



## **BIOTIME, INC.**

**\$75,000,000**

**Common Shares**

**Preferred Shares**

**Debt Securities**

**Warrants**

**Rights**

**Units**

We may, from time to time, offer and sell any combination of common shares and/or preferred shares, various series of debt securities, warrants to purchase any of the securities, and/or rights to purchase our common shares or preferred shares, either individually or in units comprised of any of the securities. The preferred shares, debt securities, warrants and units may be convertible or exercisable or exchangeable for common shares or preferred shares or other securities of ours.

The maximum aggregate offering price for these securities will not exceed \$75,000,000. We will describe the terms of any offering in a supplement to this prospectus. Any prospectus supplement may also add, update or change information contained in this prospectus. **This prospectus may not be used by us to consummate a sale of securities unless accompanied by an applicable prospectus supplement.**

We may sell these securities directly to our shareholders or to other purchasers or through agents on our behalf or through underwriters or dealers as designated from time to time. If any agents or underwriters are involved in the sale of any of these securities, the applicable prospectus supplement will provide the names of the agents or underwriters and any applicable fees, commissions or discounts.

Our common shares are listed on the NYSE MKT under the symbol "BTX." On August 23, 2012, the last sale price of our common shares as reported on the NYSE MKT was \$4.11 per share. You are urged to obtain current market quotations for our common shares.

**Investing in our securities involves risks. You should carefully read and consider the risk factors appearing throughout this prospectus and any applicable prospectus supplement, including, without limitation, those appearing under the headings "Forward Looking Statements" beginning on page 1 of this prospectus and "Risk Factors" beginning on page 5 of this prospectus, as well as any risk factors that are described in our most recent periodic reports that are incorporated by reference into this prospectus or any applicable prospectus supplement, before making a decision to purchase our securities.**

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

The date of this prospectus is      , 2012

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You should rely only on the information contained in or incorporated by reference into this prospectus or any prospectus supplement. We have not authorized any person to give any information or to make any representations other than those contained or incorporated by reference in this prospectus and the accompanying prospectus supplement, and, if given or made, you must not rely upon the information or representations as having been authorized. This prospectus and any accompanying supplement to this prospectus do not constitute an offer to sell or the solicitation of an offer to buy securities, nor do this prospectus and any accompanying supplement to this prospectus constitute an offer to sell or the solicitation of an offer to buy securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation. The information contained in this prospectus and any accompanying prospectus supplement speaks only as of the date set forth on the cover page and may not reflect subsequent changes in our business, financial condition, results of operations and prospects even though this prospectus and any accompanying prospectus supplement is delivered or securities are sold on a later date.

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## ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission (the “SEC”) utilizing a “shelf” registration, or continuous offering, process. Under this shelf registration statement, we may, from time to time, sell any one or more or a combination of the securities described in this prospectus, either individually or in units comprised of any of those securities, in one or more offerings, for a total maximum offering price not to exceed \$75,000,000. This prospectus provides you with a general description of the securities we may offer.

Each time we sell securities, we will provide a prospectus supplement (which term includes, as applicable, the controlled equity offering prospectus filed with the registration statement of which this prospectus forms a part) that will contain specific information about the terms of the securities being offered. The prospectus supplement may add, update or change information contained in this prospectus and may include a discussion of any risk factors or other special considerations that apply to the offered securities. If there is any inconsistency between the information in this prospectus and a prospectus supplement, you should rely on the information in that prospectus supplement. Before making an investment decision, it is important for you to read and consider the information contained in this prospectus and any prospectus supplement, together with the additional information described under the heading “Where You Can Find More Information.”

The registration statement containing this prospectus, including exhibits to the registration statement, provides additional information about us and the securities offered under this prospectus. The registration statement can be read on the Commission’s website or at the Commission’s public reading room mentioned under the heading “Where You Can Find More Information” in this prospectus.

**Unless the context otherwise requires, all references in this prospectus to “BioTime,” “Company,” “registrant,” “we,” “us” or “our” include BioTime, Inc., a California corporation, and any subsidiaries or other entities controlled by us.**

## FORWARD-LOOKING STATEMENTS

Some of the statements in this prospectus and in the documents incorporated by reference contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (“Securities Act”), and Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”). These forward-looking statements reflect our current views with respect to future events or our financial performance, and involve certain known and unknown risks, uncertainties and other factors, including those identified below, which may cause our or our industry’s actual or future results, levels of activity, performance or achievements to differ materially from those expressed or implied by any forward-looking statements or from historical results. We intend the forward-looking statements to be covered by the safe harbor provisions for forward-looking statements contained in Section 27A of the Securities Act and Section 21E of the Exchange Act. Forward-looking statements include information concerning our possible or assumed future results of operations and statements preceded by, followed by, or that include the words “may,” “will,” “could,” “would,” “should,” “believe,” “expect,” “plan,” “anticipate,” “intend,” “estimate,” “predict,” “potential” or similar expressions.

Forward-looking statements are inherently subject to risks and uncertainties, many of which we cannot predict with accuracy and some of which we might not even anticipate. Although we believe that the expectations reflected in the forward-looking statements are based upon reasonable assumptions at the time made, we can give no assurance that the expectations will be achieved. Future events and actual results, financial and otherwise, may differ materially from the results discussed in the forward-looking statements. Readers are cautioned not to place undue reliance on these forward-looking statements. We have no duty to update or revise any forward-looking statements after the date of this prospectus or to conform them to actual results, new information, future events or otherwise.

The factors described under “Risk Factors” in this prospectus or any prospectus supplement, and in any documents incorporated by reference into this prospectus or any prospectus supplement, and other factors could cause our or our industry’s future results to differ materially from historical results or those anticipated or expressed in any of our forward-looking statements. We operate in a continually changing business environment, and new risk factors emerge from time to time. Other unknown or unpredictable factors also could have material adverse effects on our future results, performance or achievements. We cannot assure you that projected results or events will be achieved or will occur.

## INFORMATION ABOUT THE COMPANY

### Our Business

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*<sup>™</sup> cell lines and associated *ESpan*<sup>™</sup> culture media, *HyStem*<sup>®</sup> hydrogels, human embryonic stem cell lines, and royalties from *Hextend*<sup>®</sup>. Following the completion of successful trials and regulatory approval, potential near term therapeutic product opportunities include *Renevia*<sup>™</sup> (formerly known as *HyStem*<sup>®</sup>-Rx) as a cell delivery device expected to launch in Europe in 2013, and the launch of *PanC-Dx*<sup>™</sup> as a novel blood-based cancer screen, expected by 2014 in Europe. Our long-term strategic focus is to provide regenerative therapies for age-related degenerative diseases.

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

Our commercial efforts in regenerative medicine include the development and sale of products designed for research applications in the near term as well as products designed for diagnostic and therapeutic applications in the medium and long term. We offer advanced human stem cell products and technology that can be used by researchers at universities and at companies in the bioscience and biopharmaceutical industries. We have developed research and clinical grade hES cell lines that we market for both basic research and therapeutic product development. Our subsidiary, ES Cell International Pte Ltd (“ESI”), has developed six hES cell lines. 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](http://www.biotimeinc.com). We also market human embryonic progenitor cell (“hEPCs”) developed using *ACTCellerate*<sup>™</sup> 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*<sup>™</sup> cell lines are also available for purchase through [www.biotimeinc.com](http://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*<sup>®</sup> hydrogel product line is one of the components in our near-term revenue strategy. *HyStem*<sup>®</sup> 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*<sup>®</sup> 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*<sup>®</sup> hydrogels may have other applications when combined with the diverse and scalable cell types our scientists have isolated from hES cells.

*Renovia*<sup>™</sup> (formerly known as *HyStem*<sup>®</sup>-*Rx*) is a clinical grade formulation of *HyStem-C*<sup>®</sup>, a biocompatible, implantable hyaluronan and collagen-based matrix for cell delivery in human clinical applications. As an injectable product, *Renovia*<sup>™</sup> 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 *Renovia*<sup>™</sup> 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*<sup>™</sup>, 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*<sup>™</sup> 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.	Searchable online databases for research in the fields of biotechnology, pharmaceutical development, and life sciences	77.1%	USA
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.

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*<sup>®</sup>, 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*<sup>®</sup> maintains circulatory system fluid volume and blood pressure, and keeps vital organs perfused during surgery and trauma care. *Hextend*<sup>®</sup> is manufactured and distributed in the U.S. by Hospira, Inc., and in South Korea by CJ CheilJedang Corporation (“CJ”), under licenses from us.

### **Stem Cells and Products for Regenerative Medicine Research**

We now offer 96 *ACTCellerate*<sup>™</sup> 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](http://www.biotimeinc.com), and we anticipate adding additional cell lines and related *ESpan*<sup>™</sup> 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*<sup>®</sup>, the leading human gene database, and is developing an integrated database suite to complement *GeneCards*<sup>®</sup> that will also include the *LifeMap*<sup>™</sup> 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*<sup>™</sup> hEPC lines and related *ESpan*<sup>™</sup> growth media.

### **Plasma Volume Expander Products**

We have developed and licensed manufacturing and marketing rights to *Hextend*<sup>®</sup>, 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*<sup>®</sup> 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*<sup>®</sup> is the only blood plasma volume expander that contains lactate, multiple electrolytes, glucose, and a medically approved form of starch called hetastarch. *Hextend*<sup>®</sup> 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*<sup>®</sup> is manufactured and distributed in the United States by Hospira, and in South Korea by CJ under licenses from us.

### **Additional Information**

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

We were incorporated in 1990 in the state of California. Our principal executive offices are located at 1301 Harbor Bay Parkway, Alameda, California 94502. Our telephone number is (510) 521-3390. We maintain an Internet website at [www.biotimeinc.com](http://www.biotimeinc.com). We have not incorporated by reference into this prospectus the information in, or that can be accessed through, our website, and you should not consider it to be a part of this prospectus.



## RISK FACTORS

*Our business is subject to various risks, including those described below. You should consider the following risk factors, together with the risks, uncertainties and assumptions discussed under the heading "Risk Factors" included in our most recent annual report on Form 10- K, as revised or supplemented by our most recent quarterly report on Form 10- Q, each of which are on file with the SEC and are incorporated herein by reference, and which may be amended, supplemented or superseded from time to time by other reports we file with the SEC in the future. We may include additional risks related to the securities being offered in the prospectus supplement relating to that offering. 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 biologicals, 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. The 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.

#### **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 bans, restrictions or regulations 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 commercial therapeutic 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.
- 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.
- 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 the 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.

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

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

**Risks Related to Our Industry**

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

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

The pharmaceutical and medical device products that we and our subsidiaries develop cannot be sold until the 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 bans, restrictions or regulations and religious, moral, and ethical concerns about the use of hES cells could prevent us from developing and successfully marketing stem cell products**

- Government-imposed bans or restrictions 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.
- Government-imposed bans or 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.
- 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.
- 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 expanders, 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.

**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.

**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*<sup>®</sup>. 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.
- 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.

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 additional common shares or other securities may create downward pressure on the trading price of our common shares.

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

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

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

## **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.

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



## **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**

Unless otherwise specified in the applicable prospectus supplement, we intend to use the net proceeds from the sale of our securities offered by this prospectus for general corporate purposes, including, without limitation, working capital, capital expenditures, research and development expenditures, regulatory affairs expenditures, clinical trial expenditures, acquisitions of new technologies and businesses, and investments, including in our subsidiaries.

As of the date of this prospectus, we cannot specify with certainty all of the particular uses for the net proceeds we will have upon completion of this offering. Accordingly, our management will have broad discretion in the application of the net proceeds, if any.

Pending the application of the net proceeds, we expect to invest the proceeds in investment grade, interest bearing securities.

## **RATIO OF EARNINGS TO FIXED CHARGES**

If we offer debt securities and/or preference equity securities under this prospectus, then we will, if required at that time, provide a ratio of earnings to fixed charges and/or ratio of combined fixed charges and preference dividends to earnings, respectively, in the applicable prospectus supplement for such offering.

## **PLAN OF DISTRIBUTION**

We may sell the securities from time to time pursuant to underwritten public offerings, negotiated transactions, block trades or a combination of these methods. We may sell the securities to or through underwriters or dealers, through agents, or directly to one or more purchasers. We may distribute securities from time to time in one or more transactions:

- at a fixed price or prices, which may be changed;
- at market prices prevailing at the time of sale;
- at prices related to such prevailing market prices; or
- at negotiated prices.

We may issue securities to other companies or their security holders to acquire those companies or equity interests in those companies, or to acquire assets of those companies, through mergers or consolidations with us or any of our subsidiaries, or through the exchange of our securities for securities of the other companies, or through the exchange of assets of other companies for our securities, or through similar transactions. We may also issue securities to third parties to acquire patents or other intellectual property or licenses or similar rights to use patents or other intellectual property.

We may also issue our securities to one or more of our subsidiaries, including subsidiaries that we presently control and subsidiaries that we may organize or acquire in the future, and those subsidiaries may resell our securities to raise capital or to acquire other companies or equity interests in other companies, or to acquire assets of other companies. Our subsidiaries that acquire our securities may also transfer some or all of those securities to third parties to acquire patents or other intellectual property or licenses or similar rights to use patents or other intellectual property.

Our officers and directors, members of their immediate families, and their respective affiliates may purchase securities that we offer, subject to compliance with our Related Person Transaction Policy, including approval of our Audit Committee, in the case of any transaction in excess of \$120,000, policies established by our board of directors with regard to trading in our securities by officers and directors, and applicable rules of the NYSE MKT.

In addition, we may issue the securities being offered by this prospectus as a dividend or distribution.

A prospectus supplement or supplements (and any related free writing prospectus that we may authorize to be provided to you) will describe the terms of the offering of the securities, including, to the extent applicable:

- the name or names of the underwriters, if any;
- the purchase price of the securities or other consideration therefor, and the proceeds, if any, we will receive from the sale;
- any over-allotment options under which underwriters may purchase additional securities from us;
- any agency fees or underwriting discounts and other items constituting agents' or underwriters' compensation;
- any public offering price;
- any discounts or concessions allowed or reallocated or paid to dealers; and
- any securities exchange or market on which the securities may be listed.

We may distribute the securities from time to time in one or more transactions at:

- a fixed price or prices, which may be changed;
- market prices prevailing at the time of sale;
- prices related to such prevailing market prices; or
- negotiated prices.

### **Sale Through Underwriters or Dealers**

If we use an underwriter or underwriters in the sale of securities offered by this prospectus, the underwriters will acquire the securities for their own account, including through underwriting, purchase, security lending or repurchase agreements with us, unless the underwriters are acting only as our agents for the purpose of selling our securities as described below under "Sale Through Agents." The underwriters may resell the securities from time to time in one or more transactions, including negotiated transactions. Underwriters may sell the securities in order to facilitate transactions in any of our other securities (described in this prospectus or otherwise), including other public or private transactions and short sales made by the underwriters in connection with the distribution of our securities by the underwriters. Underwriters may offer securities to the public either through underwriting syndicates represented by one or more managing underwriters or directly by one or more firms acting as underwriters. Unless otherwise indicated in the prospectus supplement, the obligations of the underwriters to purchase the securities will be subject to certain conditions, and the underwriters will be obligated to purchase all the offered securities if they purchase any of them. The underwriters may change from time to time any public offering price and any discounts or concessions allowed or reallocated or paid to dealers.

If we use an underwriter or underwriters in the sale of securities, we will execute an underwriting agreement with the underwriter or underwriters at the time we reach an agreement for sale. We will set forth in the applicable prospectus supplement the names of the specific managing underwriter or underwriters, as well as any other underwriters, and the terms of the transactions, including compensation of the underwriters and dealers. This compensation may be in the form of discounts, concessions or commissions.

No FINRA member may participate in any offering of securities made under this prospectus if the member has a conflict of interest under FINRA Rule 2720, including if 5% or more of the net proceeds, not including underwriting compensation, of any offering of securities made under this prospectus will be received by a FINRA member participating in the offering or affiliates or associated persons of the FINRA members, unless a qualified independent underwriter has participated in the offering or the offering otherwise complies with FINRA Rule 2720.

We may grant to the underwriters options to purchase additional securities to cover over-allotments, if any, at the public offering price with additional underwriting discounts or commissions. If we grant any over-allotment option, the terms of any over-allotment option will be set forth in the prospectus supplement relating to those securities.

### **Sale Through Dealers**

If we use dealers in the sale of the securities offered by this prospectus, we or an underwriter will sell the securities to them as principals. The dealers may then resell those securities to the public at varying prices to be determined by the dealers at the time of resale. The applicable prospectus supplement will set forth the names of the dealers and the terms of the transactions.

## **Direct Sales**

We may directly solicit offers to purchase the securities offered by this prospectus. In this case, no underwriters or agents would be involved. We may sell the securities directly to institutional investors or others who may be deemed to be underwriters within the meaning of the Securities Act with respect to any sale of those securities. The terms of the sales will be described in the prospectus supplement.

## **Sales Through Agents**

Securities also may be offered and sold through agents designated from time to time. The prospectus supplement will name any agent involved in the offer or sale of the securities and will describe any commissions payable to the agent. Unless otherwise indicated in the applicable prospectus supplement, any agent will agree to use its reasonable best efforts to solicit purchases for the period of its appointment. Any agent may be deemed to be an underwriter within the meaning of the Securities Act with respect to any sale of those securities.

## **Delayed Delivery Contracts**

If the applicable prospectus supplement indicates, we may authorize agents, underwriters or dealers to solicit offers from institutions to purchase securities at the public offering price under delayed delivery contracts. These contracts would provide for payment and delivery on a specified date in the future. Institutions with which contracts of this type may be made include commercial and savings banks, insurance companies, pension funds, investment companies, educational and charitable institutions, but in all cases those institutions must be approved by us. The obligations of any purchaser under any contract of this type will be subject to the condition that the purchase of the securities shall not at the time of delivery be prohibited under the laws of the jurisdiction to which the purchaser is subject. The applicable prospectus supplement will describe the commission payable for solicitation of those contracts.

## **Market Making, Stabilization and Other Transactions**

Our common shares are listed on the NYSE MKT. Any common shares sold pursuant to a prospectus supplement will be eligible for listing and trading on the NYSE MKT, subject to official notice of issuance. Unless the applicable prospectus supplement states otherwise, each other class or series of securities issued will be a new issue and will have no established trading market. We may elect to list any other class or series of securities on an exchange, but we are not currently obligated to do so. Any underwriters that we use in the sale of offered securities may make a market in the securities, but may discontinue market making at any time without notice. Therefore, we cannot assure you that the securities will have a liquid trading market.

Any underwriter may also engage in stabilizing transactions, syndicate covering transactions and penalty bids in accordance with Regulation M under the Securities Exchange Act of 1934, as amended. Stabilizing transactions involve bids to purchase the underlying security in the open market for the purpose of pegging, fixing or maintaining the price of the securities. Syndicate covering transactions involve purchases of the securities in the open market after the distribution has been completed in order to cover syndicate short positions.

Penalty bids permit the underwriters to reclaim a selling concession from a syndicate member when the securities originally sold by the syndicate member are purchased in a syndicate covering transaction to cover syndicate short positions. Stabilizing transactions, syndicate covering transactions and penalty bids may cause the price of the securities to be higher than it would be in the absence of the transactions. The underwriters may, if they commence these transactions, discontinue them at any time.

The effect of these transactions may be to stabilize or maintain the market price of the securities at a level above that which might otherwise prevail in the open market. Any such transactions, if commenced, may be discontinued at any time. We make no representation or prediction as to the direction or magnitude of any effect that the transactions described above, if implemented, may have on the price of our securities.

## **Derivative Transactions and Hedging**

We, the underwriters or other agents may engage in derivative transactions involving the securities. These derivatives may consist of short sales for hedging purposes and any other hedging activities. The underwriters or agents may acquire a long or short position in the securities, hold or resell securities acquired and purchase options or futures on the securities and other derivative instruments with returns linked to or related to changes in the price of the securities. In order to facilitate these derivative transactions, we may enter into security lending or repurchase agreements with the underwriters or agents. The underwriters or agents may effect the derivative transactions through sales of the securities to the public, including short sales, or by lending the securities in order to facilitate short sale transactions by others.

The underwriters or agents may also use the securities purchased or borrowed from us or others (or, in the case of derivatives, securities received from us in settlement of those derivatives) to directly or indirectly settle sales of the securities or close out any related open borrowings of the securities arising from the distribution of our securities by the underwriters.

## **Electronic Auctions**

We also may make sales through the Internet or through other electronic means. Since we may from time to time elect to offer securities directly to the public, with or without the involvement of agents, underwriters or dealers, utilizing the Internet or other forms of electronic bidding or ordering systems for the pricing and allocation of the securities, you will want to pay particular attention to the description of that system we will provide in a prospectus supplement.

The electronic system may allow bidders to directly participate, through electronic access to an auction site, by submitting conditional offers to buy that are subject to acceptance by us, and which may directly affect the price or other terms and conditions at which the securities are sold. These bidding or ordering systems may present to each bidder, on a so-called “real-time” basis, relevant information to assist in making a bid, such as the clearing spread at which the offering would be sold, based on the bids submitted, and whether a bidder’s individual bids would be accepted, prorated or rejected. Of course, many pricing methods can and may also be used.

Upon completion of the electronic auction process, securities will be allocated based on prices bid, terms of bid or other factors. The final offering price at which securities would be sold and the allocation of securities among bidders would be based in whole or in part on the results of the Internet or other electronic bidding process or auction.

## **General Information**

Agents, underwriters, and dealers may be entitled, under agreements entered into with us, to indemnification by us against specified liabilities, including liabilities under the Securities Act, or to contribution by us to payments they may be required to make in respect to those liabilities. The applicable prospectus supplement will describe the terms and conditions of indemnification or contribution. Some of our agents, underwriters, and dealers, or their affiliates, may be customers of, engage in transactions with or perform services for us, in the ordinary course of business. We will describe in the prospectus supplement the nature of any such relationship and the name of the parties involved. Any lockup arrangements will be set forth in the applicable prospectus supplement.

## **DESCRIPTION OF CAPITAL STOCK**

Set forth below is a description of our capital stock. The following description of our capital stock is a summary and is subject to and qualified by the applicable provisions of our Articles of Incorporation, our bylaws and the relevant provisions of the laws of the State of California. The particular terms of any offering of our securities will be described in a prospectus supplement relating to the offering.

### **Common Shares**

Our Articles of Incorporation currently authorize the issuance of up to 75,000,000 common shares, no par value per share, of which 50,868,932 shares were issued and outstanding as of August 23, 2012. 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.

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.

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.

Our common shares are currently is traded on the NYSE MKT under the symbol “BTX.”

The transfer agent and registrar for our common shares is American Stock Transfer & Trust Company, LLC.

## Preferred Shares

We are currently authorized to issue 1,000,000 preferred shares, no par value per share. The preferred shares may be issued in one or more series as the board of directors may by resolution determine. The board of directors is authorized to fix the number of shares of any series of preferred shares and to determine or alter the rights, references, privileges, and restrictions granted to or imposed on the preferred shares as a class, or upon any wholly unissued series of any preferred shares. The board of directors may, by resolution, increase or decrease (but not below the number of shares of the series then outstanding) the number of shares of any series of preferred shares subsequent to the issue of shares of that series.

As of August 23, 2012, we had no issued and outstanding preferred shares.

## DESCRIPTION OF DEBT SECURITIES

Any debt securities that we offer by this prospectus will be issued under an indenture between us and a trustee to be identified in the prospectus supplement. The terms of the debt securities will include those stated in the indenture and those made part of the indenture by reference to the Trust Indenture Act of 1939, as amended (the "Trust Indenture Act"), as in effect on the date of the indenture. The following description summarizes only the material provisions of the indenture. Accordingly, you should read the form of the applicable indenture filed as an exhibit to the registration statement of which this prospectus forms a part, because it, and not this description, defines your rights as holders of our debt securities. You should also read the applicable prospectus supplement for additional information and the specific terms of the debt securities.

## General

We may, at our option, issue debt securities in one or more series from time to time. "Debt securities" may include senior debt, senior subordinated debt or subordinated debt. The particular terms of the debt securities offered by any prospectus supplement, and the extent, if any, to which the general provisions described below do not apply, will be described in the prospectus supplement. The following summaries set forth certain general terms and provisions of the indenture and the debt securities. The prospectus supplement relating to a series of debt securities being offered will contain the following terms, if applicable:

- the title and ranking;
- the aggregate principal amount and any limit on that amount;
- the price at which the debt securities will be issued;
- the date on which the debt securities mature;
- the fixed or variable rate at which the debt securities will bear interest, or the method by which the rate shall be determined;
- the timing, place and manner of making principal, interest and any premium payments on the debt securities, and, if applicable, where the debt securities may be surrendered for registration of transfer or exchange;
- the date or dates, if any, after which the debt securities may be converted or exchanged into or for our common shares or another company's securities or property or cash, and the terms of any such conversion or exchange;
- any redemption or early repayment provisions;
- any sinking fund or similar provisions;
- the authorized denominations;

- any applicable subordination provisions;
- any guarantees of the securities by our subsidiaries or others;
- the currency in which we will pay the principal, interest and any premium payments on the debt securities;
- whether the amount of payments of principal of (and premium, if any) or interest, if any, on the debt securities may be determined with reference to an index, formula or other method and the manner in which the amounts shall be determined;
- the time period within which, the manner in which and the terms and conditions upon which the purchaser of the securities can select the payment currency;
- the provisions, if any, granting special rights to the holders of debt securities upon certain events;
- any additions to or changes in the events of default or covenants with respect to the debt securities, and any change in the right of the trustee or the holders, from those described in this prospectus, to declare principal, premium and interest to be due and payable;
- whether and under what circumstances we will pay any additional amounts on the debt securities for any tax, assessment or governmental charge and, if so, whether we will have the option to redeem the debt securities instead of paying those amounts;
- the form (registered and/or bearer securities), any restrictions applicable to the offer, sale or delivery of bearer securities and the terms, if any, upon which bearer securities may be exchanged for registered securities and vice versa;
- the date of any bearer securities or any global security, if other than the date of original issuance of the first security of the series to be issued;
- the person to whom and manner in which any interest shall be payable;
- whether the securities will be issued in whole or in part in the form of one or more global securities;
- the identity of the depository for global securities;
- whether a temporary security is to be issued with respect to the series and whether any interest payable prior to the issuance of definitive securities of the series will be credited to the account of the persons entitled thereto;
- the terms upon which beneficial interests in a temporary global security may be exchanged in whole or in part for beneficial interests in a definitive global security or for individual definitive securities and the terms upon which exchanges may be made;
- the securities exchange(s), if any, on which the securities will be listed;
- whether any underwriter(s) will act as market maker(s) for the securities;
- the form (certificated or book-entry);
- the form and/or terms of certificates, documents or conditions which may be necessary, if any, for the debt securities to be issuable in final form; and
- additional terms not inconsistent with the provisions of the indenture.

One or more series of debt securities may be sold at a substantial discount below their stated principal amount bearing no interest or interest at a rate below the market rate at the time of issuance. One or more series of debt securities may be variable rate debt securities that may be exchanged for fixed rate debt securities. In such cases, all material United States federal income tax and other considerations applicable to the series will be described in the applicable prospectus supplement.

We will comply with Section 14(e) under the Exchange Act, to the extent applicable, and any other tender offer rules under the Exchange Act, which may then be applicable, in connection with any obligation we may have to purchase debt securities at the option of the holders thereof. Any such obligation applicable to a series of debt securities will be described in the applicable prospectus supplement.

### **Exchange, Registration, Transfer and Payment**

We expect payment of principal, premium, if any, and any interest on the debt securities to be payable, and the exchange and the transfer of debt securities will be registrable, at the office of the trustee or at any other office or agency we maintain for that purpose. We expect to issue debt securities in denominations of U.S. \$1,000 or integral multiples of \$1,000. No service charge will be made for any registration of transfer or exchange of the debt securities, but we may require a payment to cover any tax or other governmental charges payable in connection with an exchange or transfer.

### **Global Debt Securities**

Unless we indicate otherwise in the applicable prospectus supplement, the following provisions will apply to all debt securities.

The debt securities of a series may be issued in whole or in part in the form of one or more global securities that will be deposited with a depository that we will identify in a prospectus supplement. Each global security will be deposited with the depository and will bear a legend regarding any related restrictions or other matters as may be provided for pursuant to the applicable indenture.

Unless a prospectus supplement states otherwise, no global security may be transferred to, or registered or exchanged for, debt securities registered in the name of, any person or entity other than the depository, unless:

- the depository has notified us that it is unwilling or unable or is no longer qualified to continue as depository;
- we order the trustee that the global security shall be so transferable, registrable and exchangeable, and the transfers shall be registrable; or
- other circumstances, if any, as may be described in the applicable prospectus supplement.

All debt securities issued in exchange for a global security or any portion of a global security will be registered in those names as the depository may direct. The specific terms of the depository arrangement with respect to any portion of a series of debt securities to be represented by a global security will be described in the applicable prospectus supplement.

Debt securities which are to be represented by a global security to be deposited with or on behalf of a depository will be represented by a global security registered in the name of the depository or its nominee. Upon the issuance of the global security, and the deposit of the global security with the depository, the depository will credit, on its book-entry registration and transfer system, the respective principal amounts of the debt securities represented by the global security to the accounts of institutions that have accounts with the depository or its nominee (the "Participants"). The accounts to be credited will be designated by the underwriters or agents of the debt securities or by us, if the debt securities are offered and sold directly by us.

Ownership of beneficial interests in a global security will be limited to Participants or persons that may hold interests through Participants. Ownership of beneficial interests in a global security will be shown on, and the transfer of that ownership interest will be effected only through, records maintained by the depository or its nominee for the global security or by Participants or persons that hold through Participants.

The laws of some jurisdictions require that certain purchasers of securities take physical delivery of the securities in certificated form. Those laws may impair the ability to transfer beneficial interests in global securities.

So long as the depository, or its nominee, is the registered owner of a global security, the depository or the nominee, as the case may be, will be considered the sole owner or holder of the debt securities represented by the global security for all purposes under the indenture. Payment of principal of, and premium and interest, if any, on debt securities will be made to the depository or its nominee as the registered owner or bearer as the case may be of the global security representing the debt securities. Each person owning a beneficial interest in a global security must rely on the procedures of the depository and, if the person is not a Participant, on the procedures of the Participant through which the person owns its interest, to exercise any rights of a holder under the indenture. If we request any action of holders or if an owner of a beneficial interest in a global security desires to give any notice or take any action a holder is entitled to give or take under the indenture, the depository will authorize the Participants to give the notice or take the action, and Participants would authorize beneficial owners owning through the Participants to give the notice or take the action or would otherwise act upon the instructions of beneficial owners owning through them.

The rights of any holder of a debt security to receive payment of principal and premium of, if any, and interest, on or after the respective due dates expressed or provided for in the debt security, or to institute suit for the enforcement of any payment on or after the applicable date, shall not be impaired or affected without the consent of the holders.

Neither we, the trustee, any paying agent nor the security registrar for a debt security will have any responsibility or liability for any aspect of the records relating to or payments made on account of beneficial ownership interests of the global security for the debt security or for maintaining, supervising or receiving any records relating to the beneficial ownership interests.

We expect that the depository or its nominee, upon receipt of any payment of principal, premium or interest, will credit immediately Participants' accounts with payments in amounts proportionate to their respective beneficial interests in the principal amount of the global security as shown on the records of the depository or its nominee. We also expect that payments by Participants to owners of beneficial interests in a global security held through the Participants will be governed by standing instructions and customary practices, as is now the case with securities held for the accounts of customers in bearer form or registered in "street name," and will be the responsibility of the Participants.

If the depository for a global security representing debt securities of a particular series is at any time unwilling or unable to continue as depository and we do not appoint a successor depository within 90 days, we will issue debt securities of the series in definitive form in exchange for the global security. In addition, we may at any time and in our sole discretion determine not to have the debt securities of a particular series represented by one or more global securities and, in that event, will issue debt securities of the series in definitive form in exchange for all of the global securities representing debt securities of the series.

## **Covenants**

Except as permitted under "Consolidation, Merger and Sale of Assets," the indenture will require us to do or cause to be done all things necessary to preserve and keep in full force and effect our existence, rights (declaration and statutory) and franchises; provided, however, that we shall not be required to preserve any right or franchise if we determine that the right or franchise is no longer desirable in the conduct of our business and that the loss of the right or franchise is not disadvantageous in any material respect to the holders of the debt securities.

The indenture will require us to pay or discharge or cause to be paid or discharged, before payment becomes delinquent, all taxes, assessments and governmental charges levied or imposed upon us, except any tax, assessment, charge or claim the amount or applicability of which is being contested in good faith.

Reference is made to the indenture and applicable prospectus supplement for information with respect to any additional covenants specific to a particular series of debt securities.

## **Consolidation, Merger and Sale of Assets**

Except as set forth in the applicable prospectus supplement, the indenture will provide that we shall not consolidate with, or sell, assign, transfer, lease or convey all or substantially all of our assets to, or merge into, another business entity, unless:



- we are the surviving entity or, in the event that we are not the surviving entity, the entity formed by the transaction (in a consolidation) or the entity which received the transfer of assets is organized under the laws of any state of the United States or the District of Columbia and that the entity assumes all of our obligations under the debt securities and the indenture; and
- immediately after giving effect to the transaction, no event of default, as defined in the indenture, shall have occurred and be continuing.

Notwithstanding the foregoing, we may merge with another business entity or acquire by purchase or otherwise all or any part of the property or assets of any other company in a transaction in which we are the surviving entity.

### **Events of Default**

Unless otherwise specified in the applicable prospectus supplement, the following are events of default with respect to any series of debt securities issued under the indenture:

- failure to pay principal of any debt security of that series when due and payable at maturity, upon acceleration, redemption or otherwise;
- failure to pay any interest on any debt security of that series when due, and the default continues for 30 days;
- failure to comply with any covenant or warranty contained in the indenture, other than covenants or warranties contained in the indenture solely for the benefit of other series of debt securities, and the default continues for 30 days after notice from the trustee or the holders of at least 25% in principal amount of the then outstanding debt securities of that series;
- certain events of bankruptcy, insolvency or reorganization; and
- any other event of default provided with respect to that particular series of debt securities.

If an event of default occurs and continues, then upon written notice to us the trustee or the holders of at least 25% in principal amount of the outstanding debt securities of that series may declare the unpaid principal amount of, and any accrued and unpaid interest on, all debt securities of that series to be due and payable immediately. However, at any time after a declaration of acceleration with respect to debt securities of any series has been made, the holders of a majority in principal amount of the outstanding debt securities of that series may rescind and annul the acceleration:

- if all events of default other than the nonpayment of principal of or interest on the debt securities of that series which have become due solely because of the acceleration have been waived or cured; and
- the rescission would not conflict with any judgment or decree of a court of competent jurisdiction. For information as to waiver of defaults, see “Amendment, Supplement and Waiver” below.

The indenture will provide that, subject to the duty of the trustee during an event of default to act with the required standard of care, the trustee will be under no obligation to exercise any of its rights or powers under the indenture at the request or direction of any of the holders, unless the holders shall have offered to the trustee reasonable security or indemnity. Subject to certain provisions, including those requiring security or indemnification of the trustee, the holders of a majority in principal amount of the outstanding debt securities of any series will have the right to direct the time, method and place of conducting any proceeding for any remedy available to the trustee, or exercising any trust or power conferred on the trustee, with respect to the debt securities of that series.

We will be required to furnish to the trustee under the indenture annually a statement as to the performance by us of our obligations under that indenture and as to any default in our performance.

### **Discharge of Indenture and Defeasance**

Except as otherwise set forth in the applicable prospectus supplement, we may terminate our obligations under the debt securities of any series, and the corresponding obligations under the indenture when:

- we have paid or deposited with the trustee funds or United States government obligations in an amount sufficient to pay at maturity all outstanding debt securities of the series, including interest other than destroyed, lost or stolen debt securities of the series which have not been replaced or paid;
- all outstanding debt securities of the series have been delivered (other than destroyed, lost or stolen debt securities of the series which have not been replaced or paid) to the trustee for cancellation; or
- all outstanding debt securities of any series have become due and payable; and
- we have paid all other sums payable under the indenture.

In addition, we will have the option to terminate substantially all our obligations under the debt securities of any series and the corresponding obligations under the indenture, and we may exercise that option if:

- we have paid or deposited with the trustee, in trust an amount of cash or United States government obligations sufficient to pay all outstanding principal of and interest on the then outstanding debt securities of the series at maturity or upon their redemption, as the case may be;
- the deposit will not result in a breach of, or constitute a default under, the indenture;
- no default or event of default shall have occurred and continue on the date of deposit and no event of default as a result of a bankruptcy or event which with the giving of notice or the lapse of time would become a bankruptcy event of default shall have occurred and be continuing on the 91st day after that date;
- we deliver to the trustee a legal opinion that we have received from, or there has been published by, the United States Internal Revenue Service a ruling, or there has been a change in tax law, in either case to the effect that the holders of the debt securities of the series will not recognize income, gain or loss for Federal income tax purposes as a result of our exercise of our option and shall be subject to Federal income tax on the same amounts and in the same manner and at the same times as would have been the case if we did not exercise our option; and
- certain other conditions are met.

We will have the option to be released from our obligations with respect to the covenants to deliver reports required to be filed with the SEC and an annual compliance certificate, and to make timely payments of taxes (including covenants described in a prospectus supplement), and any event of default occurring because of a default with respect to the covenants as they related to any series of debt securities, and we may exercise that option if:

- we deposit or cause to be deposited with the trustee in trust an amount of cash or United States government obligations sufficient to pay and discharge when due the entire unpaid principal of and interest on all outstanding debt securities of any series;
- the deposit will not result in a breach of, or constitute a default under, the indenture;
- no default or event of default shall have occurred and be continuing on the date of deposit and no event of default as a result of a bankruptcy or event which with the giving of notice or the lapse of time would become a bankruptcy event of default shall have occurred and be continuing on the 91st day after that date;
- we deliver to the trustee a legal opinion that the holders of the debt securities of the series will not recognize income, gain or loss for Federal income tax purposes as a result of our exercise of our option and shall be subject to Federal income tax on the same amounts and in the same manner and at the same times as would have been the case if we did not exercise our option; and
- certain other conditions are met.

Upon satisfaction of the applicable conditions, our obligations under the indenture with respect to the debt securities of the series, other than with respect to the covenants and events of default referred to above, shall remain in full force and effect.

Notwithstanding the foregoing, no discharge or defeasance described above shall affect the following obligations to or rights of the holders of any series of debt securities:

- rights of registration of transfer and exchange of debt securities of the series;
- rights of substitution of mutilated, defaced, destroyed, lost or stolen debt securities of the series;
- rights of holders of debt securities of the series to receive payments of principal thereof and premium, if any, and interest thereon when due;
- rights, obligations, duties and immunities of the trustee;
- rights of holders of debt securities of the series as beneficiaries with respect to property deposited with the trustee and payable to all or any of them; and
- our obligations to maintain an office or agency in respect of the debt securities of the series.

### **Transfer and Exchange**

A holder of debt securities may transfer or exchange those debt securities in accordance with the indenture. The registrar for the debt securities may require a holder, among other things, to furnish appropriate endorsements and transfer documents, and to pay any taxes and fees required by law or permitted by the indenture. The registrar is not required to transfer or exchange any debt security selected for redemption or any debt security for a period of 15 days before a selection of debt security to be redeemed.

The registered holder of a debt security may be treated as the owner of the security for all purposes.

### **Amendment, Supplement and Waiver**

Subject to certain exceptions, the terms of the indenture or the debt securities may be amended or supplemented by us and the trustee with the written consent of the holders of at least a majority in principal amount of the outstanding debt securities of each series affected by the amendment with each series voting as a separate class. Without the consent of any holder of the debt securities, we and the trustee may amend the terms of the indenture or the debt securities to:

- cure any ambiguity, defect or inconsistency;
- provide for the assumption of our obligations to holders of the debt securities by a successor corporation;
- provide for uncertificated debt securities in addition to certificated debt securities;
- make any change that does not adversely affect the rights of any holder of the debt securities in any material respect;
- add to, change or eliminate any other provisions of the indenture in respect of one or more series of debt securities if the change would not (i) apply to any security of any series created prior to the execution of a supplemental indenture and entitled to the benefit of the provision, and (ii) modify the rights of the holder of any security or would become effective only when there is no outstanding security of any series created prior to the execution of the supplemental indenture and entitled to the benefits of the provisions proposed to be changed;
- establish any additional series of debt securities; or
- comply with any requirement of the SEC in connection with the qualification of the indenture under the Trust Indenture Act.

However, holders of each series of debt securities affected by a modification must consent to modifications that have the following effect:

- reduce the principal amount of the debt securities;
- reduce the rate or change the time for payment of interest;
- change the fixed maturity date ;
- change the date on which any debt security may be subject to redemption or repurchase, or reduce the redemption or repurchase price;
- make any debt security payable in currency other than that stated in the debt security;
- waive any existing default or event of default and the resulting consequences;
- modify the right of any holder to receive payment of principal or interest on any debt security;
- impair the right of any holder to institute suit for the enforcement of any payment due; or
- make any change in the foregoing amendment provisions which require each holder's consent.

Any existing default may be waived with the consent of the holders of at least a majority in principal amount of the then outstanding debt securities of the series affected.

The consent of the holders of debt securities is not necessary to approve the particular form of any proposed amendment to any indenture. It is sufficient if any consent approves the substance of the proposed amendment.

### **Replacement Securities**

Any mutilated certificate representing a debt security or a certificate representing a debt security with a mutilated coupon will be replaced by us at the expense of the holder upon surrender of the certificate to the trustee. Certificates representing debt securities or coupons that become destroyed, stolen or lost will be replaced by us at the expense of the holder upon delivery to us and the trustee of evidence of any destruction, loss or theft satisfactory to us and the trustee, provided that neither we nor the trustee has been notified that the certificate or coupon has been acquired by a bona fide purchaser. In the case of any coupon which becomes destroyed, stolen or lost, the coupon will be replaced by issuance of a new certificate representing the debt security in exchange for the certificate representing the debt security to which the coupon appertains. In the case of a destroyed, lost or stolen certificate representing the debt security or coupon, an indemnity bond satisfactory to the trustee and us may be required at the expense of the holder of the debt security before a replacement certificate will be issued.

### **Regarding the Trustee**

We will identify in the prospectus supplement relating to any series of debt securities the trustee with respect to the series. The indenture and the Trust Indenture Act contain certain limitations on the rights of the trustee, should it become our creditor, to obtain payment of claims in certain cases, or to realize on certain property received in respect of any the claim, as security or otherwise. The trustee and its affiliates may engage in, and will be permitted to continue to engage in, other transactions with us and our affiliates; but if the trustee acquires any conflicting interest, as defined in the Trust Indenture Act, it must eliminate the conflict or resign.

The holders of a majority in principal amount of the then outstanding debt securities of any series will have the right to direct the time, method and place of conducting any proceeding for exercising any remedy available to the trustee. The Trust Indenture Act and the indenture provide that in case an event of default occurs is continuing, the trustee will be required, in the exercise of its rights and powers, to use the degree of care and skill of a prudent man in the conduct of his own affairs. Subject to those provisions, the trustee will be under no obligation to exercise any of its rights or powers under the indenture at the request of any of the holders of the debt securities, unless they have offered to the trustee indemnity satisfactory to it.

## DESCRIPTION OF WARRANTS

The following description of our warrants for the purchase of our common shares, preferred shares and/or debt securities in this prospectus contains the general terms and provisions of the warrants. The particular terms of any offering of warrants will be described in a prospectus supplement. The statements below describing the warrants are subject to and qualified by the applicable provisions of our articles of incorporation, bylaws and the relevant provisions of the laws of the State of California. We urge you to read the applicable prospectus supplements related to the particular series of warrants that we may offer under this prospectus and the complete warrant agreements and warrant certificates that contain the terms of the warrants.

### General

We may issue warrants for the purchase of our common shares, preferred shares and/or debt securities. We may issue warrants independently or together with any of our securities. Warrants also may be attached to other securities that we may issue. We may issue warrants in different series under separate warrant agreements or under a single warrant agreement between us and a specified warrant agent described in the prospectus supplement. The warrant agent will act solely as our agent in connection with the warrants and will not assume any obligation or relationship of agency or trust for or with any holders or beneficial owners of warrants.

We have issued and outstanding 636,613 warrants that are not registered under the registration statement of which this prospectus is a part. Our outstanding warrants have exercise prices, and expiration dates shown in the following table.

Number of Warrants	Shares Issuable <sup>(1)</sup>	Exercise Price <sup>(1)</sup>	Expiration Date
80,000	80,000	\$3.00	September 23, 2012
50,000	50,000	\$10.00	April 12, 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.

### Terms

A prospectus supplement will describe the specific terms of any warrants that we issue or offer, including:

- the title of the warrants;
- the aggregate number of warrants;
- the price or prices at which the warrants will be issued;
- the currencies in which the price or prices of the warrants may be payable;
- the designation, amount and terms of our capital stock or debt securities purchasable upon exercise of the warrants;
- the designation and terms of our other securities, if any, that may be issued in connection with the warrants, and the number of warrants issued with each corresponding security;
- if applicable, the date that the warrants and the securities purchasable upon exercise of the warrants will be separately transferable;
- the prices and currencies for which the securities purchasable upon exercise of the warrants may be purchased;
- the date that the warrants may first be exercised;
- the date that the warrants expire;

- the minimum or maximum amount of warrants that may be exercised at any one time;
- information with respect to book-entry procedures, if any;
- a discussion of certain federal income tax considerations; and
- any other material terms of the warrants, including terms, procedures and limitations relating to the exchange and exercise of the warrants.

### **Exercise of Warrants**

Each warrant will entitle the holder to purchase for cash the principal amount of debt securities or preferred shares or common shares at the applicable exercise price set forth in, or determined as described in, the applicable prospectus supplement. Warrants may be exercised at any time up to the close of business on the expiration date set forth in the applicable prospectus supplement. After the close of business on the expiration date, unexercised warrants will become void.

Warrants may be exercised by delivering to the corporation trust office of the warrant agent or any other officer indicated in the applicable prospectus supplement (a) the warrant certificate properly completed and duly executed and (b) payment of the amount due upon exercise. As soon as practicable following exercise, we will forward the debt securities or preferred shares or common shares purchasable upon exercise. If less than all of the warrants represented by a warrant certificate are exercised, a new warrant certificate will be issued for the remaining warrants if the expiration date of the warrants has not occurred. If we so indicate in the applicable prospectus supplement, holders of the warrants may surrender securities as all or part of the exercise price for warrants. We may, but we will not be required to, permit the exercise of warrants through the delivery of a notice of guaranteed delivery from a bank, a trust company, or a New York Stock Exchange member guaranteeing delivery of (1) payment of the exercise price for the securities for which the warrant is being exercised, and (2) a properly completed and executed warrant certificate. The notice of guaranteed delivery must be received by the warrant agent before the expiration of the warrants, and the warrant agent will not honor a notice of guaranteed delivery unless a properly completed and executed warrant certificate and full payment for the securities being purchased are received by the warrant agent by the close of business on the third business day after the expiration time of the warrants.

### **DESCRIPTION OF RIGHTS**

We may issue rights to purchase our common shares, preferred shares, and/or warrants in one or more series. Rights may be issued independently or together with any other offered security and may or may not be transferable by the person purchasing or receiving the subscription rights. In connection with any rights offering to our shareholders, we may enter into a standby underwriting arrangement with one or more underwriters pursuant to which the underwriters will purchase any of the offered securities remaining unsubscribed after the expiration of the rights offering. In connection with a rights offering to our shareholders, we will distribute certificates evidencing the rights and a prospectus supplement to our shareholders on the record date that we set for receiving rights in the rights offering. The applicable prospectus supplement will describe the following terms of rights in respect of which this prospectus is being delivered:

- the title of the rights;
- the securities for which the rights are exercisable;
- the exercise price for the rights;
- the date of determining the security holders entitled to the rights distribution;
- the number of the rights issued to each security holder;
- the extent to which the rights are transferable;

- if applicable, a discussion of the material United States federal income tax considerations applicable to the issuance or exercise of the rights;
- the date on which the right to exercise the rights shall commence, and the date on which the rights shall expire (subject to any extension);
- the conditions to completion of the rights offering;
- any provisions for changes to or adjustments in the exercise price or number of securities issuable upon exercise of the rights;
- the extent to which the rights include an over-subscription privilege with respect to unsubscribed securities;
- if applicable, the material terms of any standby underwriting or other purchase arrangement that we may enter into in connection with the rights offering; and
- any other terms of the rights, including terms, procedures and limitations relating to the exchange and exercise of the rights.

Each right will entitle the holder to purchase for cash the amount of securities, at the exercise price. Rights may be exercised at any time up to the close of business on the expiration date of the rights. After the close of business on the expiration date, all unexercised rights will become void. The manner in which rights may be exercised will be described in the prospectus supplement. We may, but we will not be required to, permit the exercise of rights through the delivery of a notice of guaranteed delivery from a bank, a trust company, or a New York Stock Exchange member guaranteeing delivery of (1) payment of the exercise price for the securities for which the rights are being exercised, and (2) a properly completed and executed rights certificate. The notice of guaranteed delivery must be received by the rights agent before the expiration of the rights, and the rights agent will not honor a notice of guaranteed delivery unless a properly completed and executed rights certificate and full payment for the securities being purchased are received by the rights agent by the close of business on the third business day after the expiration time of the rights. Upon receipt of payment and the proper completion and due execution of the rights certificate at the designated office of the rights agent or any other office indicated in the prospectus supplement, we or the transfer agent will forward, as soon as practicable, the securities purchased through upon the exercise of the rights. We may determine to offer any unsubscribed offered securities directly to persons other than shareholders, to or through agents, underwriters or dealers or through a combination of the methods, including pursuant to standby underwriting arrangements, as set forth in the applicable prospectus supplement.

#### DESCRIPTION OF UNITS

The following description, together with the additional information we may include in any applicable prospectus supplements, summarizes the material terms and provisions of the units that we may offer under this prospectus. While the terms we have summarized below will apply generally to any units that we may offer under this prospectus, we will describe the particular terms of any series of units in more detail in a prospectus supplement. The terms of any units offered under a prospectus supplement may differ from the terms described below. However, no prospectus supplement will fundamentally change the terms that are set forth in this prospectus or offer a security that is not registered and described in this prospectus at the time of its effectiveness.

We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of unit agreement that describes the terms of the series of units we are offering, and any supplemental agreements, before the issuance of the related series of units. The following summaries of material terms and provisions of the units are subject to, and qualified in their entirety by reference to, all the provisions of the unit agreement and any supplemental agreements applicable to a particular series of units. We urge you to read the applicable prospectus supplements related to the particular series of units that we sell under this prospectus, as well as the complete unit agreement and any supplemental agreements that contain the terms of the units.

#### General

We may issue units comprised of one or more debt securities, common shares, preferred shares, warrants and/or units in any combination. Each unit will be issued so that the holder of the unit is also the holder of each security included in the unit. Thus, the holder of a unit will have the rights and obligations of a holder of each included security. The unit agreement under which a unit is issued may provide that the securities included in the unit may not be held or transferred separately, at any time or at any time before a specified date.

We will describe in the applicable prospectus supplement the terms of the series of units, including:

- the designation and terms of the units and of the securities comprising the units, including whether and under what circumstances those securities may be held or transferred separately;
- any provisions of the governing unit agreement that differ from those described below; and
- any provisions for the issuance, payment, settlement, transfer or exchange of the units or of the securities comprising the units.

The provisions described in this section, as well as those described under "Description of Capital Stock," "Description of Debt Securities," "Description of Warrants," and "Description of Rights" will apply to each unit and to any common shares, preferred shares, debt security, warrant or right included in each unit, respectively.

#### **Issuance in Series**

We may issue units in the amounts and in numerous distinct series as we determine.

#### **Enforceability of Rights by Holders of Units**

Each unit agent will act solely as our agent under the applicable unit agreement and will not assume any obligation or relationship of agency or trust with any holder of any unit. A single bank or trust company may act as unit agent for more than one series of units. A unit agent will have no duty or responsibility in case of any default by us under the applicable unit agreement or unit, including any duty or responsibility to initiate any proceedings at law or otherwise, or to make any demand upon us. Any holder of a unit may, without the consent of the related unit agent or the holder of any other unit, enforce by appropriate legal action its rights as holder under any security included in the unit.

#### **Title**

We, the unit agent and any of their agents may treat the registered holder of any unit certificate as an absolute owner of the units evidenced by that certificate for any purposes and as the person entitled to exercise the rights attaching to the units, despite any notice to the contrary.

### **LEGAL MATTERS**

The legality of the issuance of the securities being offered hereby and the binding nature of any debt securities or warrants being offered hereby will be passed upon for us 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. The legality of the securities for any underwriters, dealers or agents will be passed upon by counsel as may be specified in the applicable prospectus supplement.

### **EXPERTS**

The financial statements incorporated in this prospectus by reference from BioTime's Annual Report on Form 10-K for the year ended December 31, 2011 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 the report given upon the authority of said firm as experts in accounting and auditing.



## INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to “incorporate by reference” information that we file with them. Incorporation by reference allows us to disclose important information to you by referring you to those other documents. The information incorporated by reference is an important part of this prospectus, and information that we file later with the SEC will automatically update and supersede this information. We filed a registration statement on Form S-3 under the Securities Act of 1933 with the SEC with respect to the securities being offered pursuant to this prospectus. This prospectus omits certain information contained in the registration statement, as permitted by the SEC. You should refer to the registration statement, including the exhibits, for further information about us and the securities being offered pursuant to this prospectus. Statements in this prospectus regarding the provisions of certain documents filed with, or incorporated by reference in, the registration statement are not necessarily complete and each statement is qualified in all respects by that reference. Copies of all or any part of the registration statement, including the documents incorporated by reference or the exhibits, may be obtained upon payment of the prescribed rates at the offices of the SEC listed below in “Where You Can Find More Information.” The documents we are incorporating by reference are:

- our Annual Report on Form 10-K for the fiscal year ended December 31, 2011, filed with the SEC on March 14, 2012;
- our Quarterly Report on Form 10-Q for the three-month period ended March 31, 2012 filed with the SEC on May 10, 2012;
- our Quarterly Report on Form 10-Q for the three and six-month period ended June 30, 2012, filed with the SEC on August 9, 2012;
- our Current Reports on Form 8-K filed with the SEC on January 3, January 24, April 20, April 25, May 21, June 29, July 26, and August 1 (not including any information furnished under Items 2.02 or 7.01 of Form 8-K, including the related exhibits, which information is not incorporated by reference herein);
- the description of our common shares contained in our registration statement on Form 8-A (File No. 001-12830) filed with SEC on October 26, 2009, including any amendment or report filed for the purpose of updating such description;
- our definitive proxy solicitation materials filed with the SEC on April 30, 2012; and
- all of the filings pursuant to the Securities Exchange Act of 1934, as amended, after the date of the filing of the original registration statement and prior to the effectiveness of the registration statement.

In addition, all documents subsequently filed by us pursuant to Section 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended, before the date our offering is terminated or completed are deemed to be incorporated by reference into, and to be a part of, this prospectus.

Any statement contained in this prospectus or in a document incorporated or deemed to be incorporated by reference into this prospectus will be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus or any other subsequently filed document that is deemed to be incorporated by reference into this prospectus modifies or supersedes the statement. Any statement so modified or superseded will not be deemed, except as so modified or superseded, to constitute a part of this prospectus.

We will furnish without charge to you, on written or oral request, a copy of any or all of the documents incorporated by reference, including exhibits to these documents. You should direct any requests for documents to BioTime, Inc., Attention: Secretary, 1301 Harbor Bay Parkway, Alameda, California 94502, (510) 521-3390.

You should rely only on information contained in, or incorporated by reference into, this prospectus and any prospectus supplement. We have not authorized anyone to provide you with information different from that contained in this prospectus or incorporated by reference in this prospectus. We are not making offers to sell the securities in any jurisdiction in which such an offer or solicitation is not authorized or in which the person making such offer or solicitation is not qualified to do so or to anyone to whom it is unlawful to make such offer or solicitation.

## 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. You 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. You 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 the site is <http://www.sec.gov>.

We make available free of charge on or through our Internet website [www.biotimeinc.com](http://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 the material with, or furnish it to, the Commission.

You may also request, and we will provide you with, a copy of these filings, at no cost, by calling us at (510) 521- 3390 or by writing to us at the following address:

**BioTime, Inc.**  
**1301 Harbor Bay Parkway, Suite 100**  
**Alameda, California 94502**  
**Attn: Corporate Secretary**

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 statement is qualified in all respects by reference to the exhibit.

The information in this prospectus is not complete and may be changed. We may not sell these securities until the Securities and Exchange Commission declares our registration statement effective. This prospectus is not an offer to sell these securities and 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 24, 2012**

**Prospectus**



**BIOTIME, INC.**

**\$25,000,000**

**Common Shares**

We have entered into a Controlled Equity Offering sales agreement with Cantor Fitzgerald & Co., or Cantor, relating to our common shares offered by this prospectus. In accordance with the terms of the sales agreement, we may offer and sell common shares having an aggregate offering price of up to \$25 million from time to time through Cantor.

Our common shares are listed on NYSE MKT under the symbol "BTX" On August 23, 2012, the last reported sale price of our common shares on NYSE MKT was \$4.11 per share.

Sales of our common shares, if any, under this prospectus may be made in sales deemed to be "at-the-market" equity offerings as defined in Rule 415 promulgated under the Securities Act of 1933, as amended (the "Securities Act"), including sales made directly on or through NYSE MKT, the existing trading market for our common shares, sales made to or through a market maker other than on an exchange or otherwise, in negotiated transactions at market prices prevailing at the time of sale or at prices related to the prevailing market prices, and/or any other method permitted by law. Cantor will act as a sales agent on a best efforts basis using commercially reasonable efforts consistent with its normal trading and sales practices, to sell our common shares on terms mutually agreed between Cantor and us. There is no arrangement for funds to be received in any escrow, trust or similar arrangement.

The compensation to Cantor for sales of common shares sold pursuant to the sales agreement will be an aggregate of up to 3.0% of the gross proceeds of the sales price per share. In connection with the sale of the common shares on our behalf, Cantor will be deemed to be an "underwriter" within the meaning of the Securities Act, and the compensation of Cantor may be deemed to be underwriting commissions or discounts.

**Investing in our common shares involves a high degree of risk. Please read the information contained in and incorporated by reference under the heading "Risk Factors" on page S-3 of this prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus.**

**Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.**



The date of this prospectus is \_\_\_\_\_, 2012.



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## ABOUT THIS PROSPECTUS

This prospectus relates to the offering of our common shares. Before buying any of the common shares that we are offering, we urge you to carefully read this prospectus, together with the information incorporated by reference as described under the headings "Where You Can Find More Information" and "Incorporation of Certain Information by Reference" in this prospectus. These documents contain important information that you should consider when making your investment decision.

This prospectus describes the specific terms of the common shares we are offering and also adds to, and updates information contained in the documents incorporated by reference into this prospectus. To the extent there is a conflict between the information contained in this prospectus, on the one hand, and the information contained in any document incorporated by reference into this prospectus that was filed with the Securities and Exchange Commission (the "SEC"), before the date of this prospectus, on the other hand, you should rely on the information in this prospectus. If any statement in one of these documents is inconsistent with a statement in another document having a later date - for example, a document incorporated by reference into this prospectus - the statement in the document having the later date modifies or supersedes the earlier statement.

You should rely only on the information contained in, or incorporated by reference into this prospectus and in any free writing prospectus that we may authorize for use in connection with this offering. We have not, and Cantor has not, authorized any other person to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. We are not, and Cantor is not, making an offer to sell or soliciting an offer to buy our securities in any jurisdiction in which an offer or solicitation is not authorized or in which the person making that offer or solicitation is not qualified to do so or to anyone to whom it is unlawful to make an offer or solicitation. You should assume that the information appearing in this prospectus, the documents incorporated by reference into this prospectus, and in any free writing prospectus that we may authorize for use in connection with this offering, is accurate only as of the date of those respective documents. Our business, financial condition, results of operations and prospects may have changed since those dates. You should read this prospectus, the documents incorporated by reference into this prospectus, and any free writing prospectus that we may authorize for use in connection with this offering, in their entirety before making an investment decision. You should also read and consider the information in the documents to which we have referred you in the sections of this prospectus entitled "Where You Can Find More Information" and "Incorporation of Certain Information by Reference."

We are offering to sell, and seeking offers to buy, common shares only in jurisdictions where offers and sales are permitted. The distribution of this prospectus and the offering of the common shares in certain jurisdictions may be restricted by law. Persons outside the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering of the common shares and the distribution of this prospectus outside the United States. This prospectus does not constitute, and may not be used in connection with, an offer to sell, or a solicitation of an offer to buy, any securities offered by this prospectus by any person in any jurisdiction in which it is unlawful for the person to make an offer or solicitation.

The address of our principal executive office is, 1301 Harbor Bay Parkway, Alameda, CA 94502, and our telephone number is (510) 521-3390. Our corporate website address is [www.biotimeinc.com](http://www.biotimeinc.com). The information contained on our website is not a part of, and should not be construed as being incorporated by reference into, this prospectus.

## PROSPECTUS SUMMARY

*This summary highlights certain information about us, this offering and selected information contained elsewhere in or incorporated by reference into this prospectus. This summary is not complete and does not contain all of the information that you should consider before deciding whether to invest in our common shares. For a more complete understanding of our company and this offering, we encourage you to read and consider carefully the more detailed information in this prospectus and the accompanying prospectus, including the information incorporated by reference into this prospectus and the accompanying prospectus, and the information referred to under the heading "Risk Factors" in this prospectus on page S- 3 and on page 5 of the accompanying prospectus, and in the documents incorporated by reference into this prospectus and the accompanying prospectus.*

### **The Offering**

Common Shares Offered	In accordance with the terms of the sales agreement, we may offer and sell from time to time through Cantor common shares having an aggregate offering price of up to \$25 million.
Manner of Offering	"At- the- market" offering that may be made from time to time through our sales agent, Cantor Fitzgerald & Co. See "Plan of Distribution" on page S- 7.

### **Use of Proceeds**

We intend to use the net proceeds from this offering, if any, for general corporate purposes, including, without limitation, working capital, capital expenditures, research and development expenditures, regulatory affairs expenditures, clinical trial expenditures, acquisitions of new technologies and businesses, and investments, including in our subsidiaries. See "Use of Proceeds" on page S- 5 of this prospectus.

### **Risk Factors**

Investing in our common shares involves a high degree of risk. Please read the information contained in and incorporated by reference under the heading "Risk Factors" on page S- 3 of this prospectus and page 5 of the accompanying prospectus, and under similar headings in the other documents that are filed after the date hereof and incorporated by reference into this prospectus and the accompanying prospectus.

### **Stock Exchange Listing**

Our common shares are listed on the NYSE MKT under the symbol "BTX"

## RISK FACTORS

*Investing in our common shares involves risk. Before deciding whether to invest in our common shares, you should consider carefully the risks and uncertainties described below and discussed under the section entitled "Risk Factors" on page 5 of the accompanying prospectus. You should also consider the risks, uncertainties and assumptions discussed under the heading "Risk Factors" included in our most recent annual report on Form 10- K, as revised or supplemented by our most recent quarterly report on Form 10- Q, each of which are on file with the SEC and are incorporated herein by reference, and which may be amended, supplemented or superseded from time to time by other reports we file with the SEC in the future. There may be other unknown or unpredictable economic, business, competitive, regulatory or other factors that could have material adverse effects on our future results. If any of these risks actually occurs, our business, business prospects, financial condition or results of operations could be seriously harmed. This could cause the trading price of our common shares to decline, resulting in a loss of all or part of your investment. Please also read carefully the section below entitled "Disclosure Regarding Forward- Looking Statements."*

### **Risks Related to This Offering**

#### **Management will have broad discretion as to the use of the proceeds from this offering, and may not use the proceeds effectively.**

Because we have not designated the amount of net proceeds from this offering to be used for any particular purpose, our management will have broad discretion as to the application of the net proceeds from this offering and could use them for purposes other than those contemplated at the time of the offering. Our management may use the net proceeds for corporate purposes that may not improve the performance or prospects of our business or increase the market value of our common shares.

#### **You may experience immediate and substantial dilution.**

The offering price per share in this offering may exceed the net tangible book value per share of our common shares outstanding prior to this offering. Assuming that an aggregate of shares of our common stock are sold during the term of the sales agreement with Cantor at a price of \$4.11 per share, the last reported sale price of our common shares on the NYSE MKT on August 23, 2012 for aggregate gross proceeds of \$25,000,000, after deducting commissions and estimated aggregate offering expenses payable by us, you will experience immediate dilution of \$3.46 per share, representing the difference between our as adjusted net tangible book value per share as of June 30, 2012 after giving effect to this offering and the assumed offering price. The exercise of outstanding stock options and certain warrants may result in further dilution of your investment. See the section entitled "Dilution" below for a more detailed illustration of the dilution you would incur if you participate in this offering.

## DISCLOSURE REGARDING FORWARD- LOOKING STATEMENTS

Some of the statements in this prospectus, the accompanying prospectus and in the documents incorporated herein by reference contain forward-looking statements within the meaning of Section 27A of the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”). These forward-looking statements reflect our current views with respect to future events or our financial performance, and involve certain known and unknown risks, uncertainties and other factors, including those identified below, which may cause our or our industry’s actual or future results, levels of activity, performance or achievements to differ materially from those expressed or implied by any forward-looking statements or from historical results. We intend the forward-looking statements to be covered by the safe harbor provisions for forward-looking statements contained in Section 27A of the Securities Act and Section 21E of the Exchange Act. Forward-looking statements include information concerning our possible or assumed future results of operations and statements preceded by, followed by, or that include the words “may,” “will,” “could,” “would,” “should,” “believe,” “expect,” “plan,” “anticipate,” “intend,” “estimate,” “predict,” “potential” or similar expressions.

Forward-looking statements are inherently subject to risks and uncertainties, many of which we cannot predict with accuracy and some of which we might not even anticipate. Although we believe that the expectations reflected in the forward-looking statements are based upon reasonable assumptions at the time made, we can give no assurance that the expectations will be achieved. Future events and actual results, financial and otherwise, may differ materially from the results discussed in the forward-looking statements. Readers are cautioned not to place undue reliance on these forward-looking statements. We have no duty to update or revise any forward-looking statements after the date of this prospectus or to conform them to actual results, new information, future events or otherwise.

The factors described under “Risk Factors” in this prospectus or the accompanying prospectus, and in any documents incorporated by reference into this prospectus or the accompanying prospectus, and other factors could cause our or our industry’s future results to differ materially from historical results or those anticipated or expressed in any of our forward-looking statements. We operate in a continually changing business environment, and new risk factors emerge from time to time. Other unknown or unpredictable factors also could have material adverse effects on our future results, performance or achievements. We cannot assure you that projected results or events will be achieved or will occur.



## USE OF PROCEEDS

Unless otherwise specified in an applicable free writing prospectus, we intend to use the net proceeds from the sale of our securities offered by this prospectus for general corporate purposes, including, without limitation, working capital, capital expenditures, research and development expenditures, regulatory affairs expenditures, clinical trial expenditures, acquisitions of new technologies, assets, and businesses, and investments, including in our subsidiaries.

As of the date of this prospectus, we cannot specify with certainty all of the particular uses for the net proceeds we will have upon completion of this offering. Accordingly, our management will have broad discretion in the application of the net proceeds, if any.

Pending the application of the net proceeds, we expect to invest the proceeds in investment grade, interest bearing securities.

## DILUTION

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

If you purchase our common stock in this offering, your interest will be diluted to the extent of the difference between the public offering price per share and the net tangible book value per share of our common stock after this offering. We calculate net tangible book value per share by dividing our net tangible assets (tangible assets less total liabilities) by the number of shares of our common stock issued and outstanding as of June 30, 2012.

Our pro forma net tangible book value at June 30, 2012 was \$12,641,759, or \$0.25 per share. After giving effect to the sale of our common stock during the term of the sales agreement with Cantor in the aggregate amount of \$25,000,000 at an assumed offering price of \$4.11 per share, the last reported price of our common stock on NYSE MKT on August 23, 2012, and after deducting commissions and estimated aggregate offering expenses payable by us, our pro forma as adjusted net tangible book value as of August 23, 2012 would have been approximately \$36.8 million, or \$0.65 per share of common stock. This represents an immediate increase in the net tangible book value of \$0.40 per share to our existing stockholders and an immediate dilution in net tangible book value of \$3.46 per share to new investors. The following table illustrates per share dilution:

Assumed public offering price per share	\$	4.11
Pro forma net tangible book value per share as of June 30, 2012	\$	0.25
Increase in net tangible book value per share attributable to this offering	\$	<u>0.40</u>
Pro forma as adjusted net tangible book value per share as of June 30, 2012, after giving effect to this offering	\$	<u>0.65</u>
Dilution per share to new investors purchasing shares in this offering	\$	<u><u>3.46</u></u>

The table above assumes for illustrative purposes that an aggregate of 6,082,725 shares of our common stock are sold during the term of the sales agreement with Cantor at a price of \$4.11 per share, the last reported sale price of our common stock on the NYSE MKT on August 23, 2012, for aggregate gross proceeds of \$25,000,000. The shares pursuant to the sales agreement with Cantor are being sold from time to time at various prices. An increase of \$1.00 per share in the price at which the shares are sold from the assumed offering price of \$4.11 per share shown in the table above, assuming all of our common stock in the aggregate amount of \$25,000,000 during the term of the sales agreement with Cantor is sold at that price, would increase our pro forma as adjusted net tangible book value per share after the offering to \$0.66 per share and would increase the dilution in net tangible book value per share to new investors in this offering to \$4.45 per share, after deducting commissions and estimated aggregate offering expenses payable by us. A decrease of \$1.00 per share in the price at which the shares are sold from the assumed offering price of \$4.11 per share shown in the table above, assuming all of our common stock in the aggregate amount of \$25,000,000 during the term of the sales agreement with Cantor is sold at that price, would decrease our pro forma as adjusted net tangible book value per share after the offering to \$0.63 per share and would decrease the dilution in net tangible book value per share to new investors in this offering to \$2.48 per share, after deducting commissions and estimated aggregate offering expenses payable by us. This information is supplied for illustrative purposes only.

The above discussion and table are based on 50,791,391 shares of our common stock issued and outstanding as of June 30, 2012, and excludes the following, all as of June 30, 2012:

- warrants to purchase 636,613 shares of common stock at a weighted average exercise price of \$9.12 per share and;
- options under our 2002 Stock Option Plan to purchase 3,433,802 shares of common stock with a weighted average exercise price of \$2.35 per share, with 1,258,296 shares remaining available for future grant under such plan.

To the extent that options or warrants outstanding as of June 30, 2012 have been or are exercised, or other shares are issued, investors purchasing shares in this offering could experience further dilution. In addition, we may choose to raise additional capital due to market conditions or strategic considerations, even if we believe we have sufficient funds for our current or future operating plans. To the extent that additional capital is raised through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

### MARKET FOR COMMON SHARES

Our 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, we changed the 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 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

As of April 27, 2012, there were 14,853 holders of the common shares based on the share position listing.

### 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.

## PLAN OF DISTRIBUTION

We have entered into a Controlled Equity Offering Sales Agreement with Cantor Fitzgerald & Co., or Cantor, that provides for the issuance and sale by us of common shares having an aggregate offering price of up to \$25 million from time to time through Cantor acting as agent. Cantor may sell the common shares by any method that is deemed to be an "at-the-market" equity offering as defined in Rule 415 promulgated under the Securities Act, including sales made directly on or through the NYSE MKT or any other existing trading market for the common shares in the U.S. or to or through a market maker. Cantor may also sell the common shares in privately negotiated transactions, subject to our prior approval.

Each time we wish to issue and sell common shares under the sales agreement, we will notify Cantor of the number of shares to be issued, the dates on which the sales are anticipated to be made and any minimum price below which sales may not be made. Once we have so instructed Cantor, unless Cantor declines to accept the terms of this notice, Cantor has agreed to use its commercially reasonable efforts consistent with its normal trading and sales practices to sell the shares up to the amount specified on the terms. Under the sales agreement, the obligations of Cantor to sell our common shares is subject to a number of conditions that we must meet.

The settlement of sales of our common shares through Cantor is generally anticipated to occur on the third trading day following the date on which the sale was made. Sales of our common shares as contemplated in this prospectus will be settled through the facilities of The Depository Trust Company or by the other means as we and Cantor may agree upon. There is no arrangement for funds to be received in an escrow, trust or similar arrangement.

We will pay Cantor a commission equal to an aggregate of up to 3.0% of the gross proceeds we receive from the sales of our common shares. Because there is no minimum offering amount required as a condition to close this offering, the actual total public offering amount, commissions and proceeds to us, if any, are not determinable at this time. In connection with the sale of the common shares on our behalf, Cantor may, and will with respect to sales effected in an "at-the-market-offering," be deemed to be an "underwriter" within the meaning of the Securities Act, and the compensation of Cantor will be deemed to be underwriting commissions or discounts. We have agreed to provide indemnification and contribution to Cantor with respect to certain civil liabilities, including liabilities under the Securities Act. We have also agreed to reimburse Cantor for fees and disbursements to its counsel in an amount not to exceed \$50,000, which will be payable upon the execution of the sales agreement. We estimate that the total expenses for the offering, excluding compensation and reimbursements payable to Cantor under the terms of the sales agreement, will be approximately \$100,000.

The offering of our common shares pursuant to the sales agreement will terminate upon the earlier of (1) the sale of all of our common shares provided for in this prospectus, or (2) termination of the sales agreement in accordance with its terms. Cantor may terminate the sales agreement at any time in certain circumstances, including the occurrence of a material adverse change with respect to us that, in Cantor's sole judgment, makes it impracticable or inadvisable to market the shares, if there has occurred any material adverse change in the U.S. financial markets or international financial markets, which in Cantor's sole judgment makes it impracticable to market the shares, if trading in the shares has been suspended or limited by the SEC or the NYSE MKT, or if trading generally has been suspended or limited by the NYSE MKT, if any suspension of trading of any of our shares on any exchange or over-the-counter market shall have occurred and be continuing, if there is a major disruption of securities settlements or clearance services in the U.S. which shall be continuing, or if a banking moratorium has been declared in the U.S. Federal or New York authorities. We and Cantor may each terminate the sales agreement at any time upon 10 days prior notice.

This summary of the material provisions of the sales agreement does not purport to be a complete statement of its terms and conditions. A copy of the sales agreement is filed with the SEC as an Exhibit to the registration statement of which this prospectus is a part. See "Where You Can Find More Information" below.

Cantor and its affiliates may in the future provide various investment banking, commercial banking and other financial services for us and our affiliates, for which services they may in the future receive customary fees. To the extent required by Regulation M, Cantor will not engage in any market making activities involving our common shares while the offering is ongoing under this prospectus.

This prospectus and the accompanying prospectus in electronic format may be made available on a website maintained by Cantor and Cantor may distribute this prospectus and the accompanying prospectus electronically.

## LEGAL MATTERS

The legality of the issuance of the common shares offered hereby is being passed upon for us 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. Reed Smith LLP, New York, New York, is counsel for Cantor in connection with this offering.

## EXPERTS

The financial statements incorporated in this prospectus by reference from our Annual Report on Form 10-K for the year ended December 31, 2011 have been audited by Rothstein Kass, an 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 the report given upon the authority of said firm as experts in accounting and auditing.

## WHERE YOU CAN FIND MORE INFORMATION

This prospectus constitutes a part of a registration statement on Form S-3 filed under the Securities Act. As permitted by the SEC's rules, this prospectus, which forms a part of the registration statement, does not contain all the information that is included in the registration statement. You will find additional information about us in the registration statement. Any statements made in this prospectus concerning legal documents are not necessarily complete and you should read the documents that are filed as exhibits to the registration statement or otherwise filed with the SEC for a more complete understanding of the document or matter.

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. You 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. You 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 the site is <http://www.sec.gov>.

We make available free of charge on or through our Internet website [www.biotimeinc.com](http://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 the material with, or furnish it to, the Commission.

## INCORPORATION OF DOCUMENTS BY REFERENCE

The SEC allows us to “incorporate by reference” information that we file with them. Incorporation by reference allows us to disclose important information to you by referring you to those other documents. The information incorporated by reference is an important part of this prospectus, and information that we file later with the SEC will automatically update and supersede this information. We filed a registration statement on Form S-3 under the Securities Act of 1933 with the SEC with respect to the securities being offered pursuant to this prospectus. This prospectus omits certain information contained in the registration statement, as permitted by the SEC. You should refer to the registration statement, including the exhibits, for further information about us and the securities being offered pursuant to this prospectus. Statements in this prospectus regarding the provisions of certain documents filed with, or incorporated by reference in, the registration statement are not necessarily complete and each statement is qualified in all respects by that reference. Copies of all or any part of the registration statement, including the documents incorporated by reference or the exhibits, may be obtained upon payment of the prescribed rates at the offices of the SEC listed below in “Where You Can Find More Information.” The documents we are incorporating by reference are:

- our Annual Report on Form 10-K for the fiscal year ended December 31, 2011, filed with the SEC on March 14, 2012;
- our Quarterly Report on Form 10-Q for the three-month period ended March 31, 2012 filed with the SEC on May 10, 2012;
- our Quarterly Report on Form 10-Q for the three and six-month period ended June 30, 2012, filed with the SEC on August 9, 2012;
- our Current Reports on Form 8-K filed with the SEC on January 3, January 24, April 20, April 25, May 21, June 29, July 26, and August 1 (not including any information furnished under Items 2.02 or 7.01 of Form 8-K, including the related exhibits, which information is not incorporated by reference herein);
- the description of our common shares contained in our registration statement on Form 8-A (File No. 001-12830) filed with the SEC on October 26, 2009, including any amendment or report filed for the purpose of updating such description;
- our definitive proxy solicitation materials filed with the SEC on April 30, 2012; and
- all of the filings pursuant to the Securities Exchange Act of 1934, as amended, after the date of the filing of the original registration statement and prior to the effectiveness of the registration statement.

In addition, all documents subsequently filed by us pursuant to Section 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended, before the date our offering is terminated or completed are deemed to be incorporated by reference into, and to be a part of, this prospectus.

Any statement contained in this prospectus or in a document incorporated or deemed to be incorporated by reference into this prospectus will be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus or any other subsequently filed document that is deemed to be incorporated by reference into this prospectus modifies or supersedes the statement. Any statement so modified or superseded will not be deemed, except as so modified or superseded, to constitute a part of this prospectus.

We will furnish without charge to you, on written or oral request, a copy of any or all of the documents incorporated by reference, including exhibits to these documents. You should direct any requests for documents to BioTime, Inc., Attention: Secretary, 1301 Harbor Bay Parkway, Alameda, California 94502, (510) 521-3390.

You should rely only on information contained in, or incorporated by reference into, this prospectus and any prospectus supplement. We have not authorized anyone to provide you with information different from that contained in this prospectus or incorporated by reference in this prospectus. We are not making offers to sell the securities in any jurisdiction in which such an offer or solicitation is not authorized or in which the person making such offer or solicitation is not qualified to do so or to anyone to whom it is unlawful to make such offer or solicitation.

**PART II**

**INFORMATION NOT REQUIRED IN THE PROSPECTUS**

**ITEM 14. *Other Expenses Of Issuance And Distribution***

The following sets forth the costs and expenses payable by us in connection with the distribution of the securities being registered. We have estimated all amounts except the SEC registration fee.

SEC registration fee	\$	8,595.00	
Printing and duplicating expenses			*
Legal fees and expenses (other than blue sky)			*
Accounting fees and expenses			*
Miscellaneous			*
Total:	\$		*

\* These fees and expenses depend on the types of securities offered and the number of offerings, and accordingly cannot be estimated at this time.

**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**

Exhibit Numbers	Description
1.1	Form of Underwriting Agreement. (2)
1.2	Controlled Equity Offering Sales Agreement dated August 24, 2012 between BioTime, Inc. and Cantor Fitzgerald & Co. *
4.1	Specimen of common share certificate. (1)
4.2	Form of preferred shares certificate, and Form of certificate of designation of preferred shares. (2)
4.3	Form of Indenture.(2)
4.4	Form of Debt Security. (2)
4.5	Form of Warrant Agreement, including form of Warrant Certificate. (2)
4.6	Form of Unit Agreement and unit certificate, if any. (2)
4.7	Form of Right Agreement and right certificate, if any. (2)
<a href="#">5.1</a>	Opinion of Thompson, Welch, Soroko & Gilbert LLP *
12.1	Statement Regarding Computation of Ratio of Earnings to Fixed Charges (2)
<a href="#">23.1</a>	Consent of Rothstein Kass, independent registered public accounting firm. *
23.2	Consent of Thompson, Welch, Soroko & Gilbert LLP (included in Exhibit 5.1). *
25.1	Statement of Eligibility on Form T-1of Trustee under Debt Indenture. (2)

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

(2) If applicable, to be filed by amendment or incorporated by reference in connection with an offering of securities registered hereunder.

\* Filed herewith.

## Item 17. Undertakings

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 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.

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

(i) 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 this Registration Statement; and

(ii) 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

(5) 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.

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 registrant hereby undertakes to file an application for the purpose of determining the eligibility of the trustee to act under subsection (a) of Section 310 of the Trust Indenture Act ("Act") in accordance with the rules and regulations prescribed by the Commission under Section 305(b)(2) of the Act.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Alameda, State of California on August 24, 2012.

BIOTIME, INC.

By/s/ Peter S. Garcia

Peter S. Garcia, Chief Financial Officer

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement on Form S-3 has been signed below by the following persons in the capacities and on the dates indicated:

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>s/ Michael D. West</u> MICHAEL D. WEST, PH.D.	Chief Executive Officer and Director (Principal Executive Officer)	August 24, 2012
<u>s/ Peter S. Garcia</u> PETER S. GARCIA	Chief Financial Officer (Principal Financial and Accounting Officer)	August 24, 2012
<u>s/ Neal C. Bradsher</u> NEAL C. BRADSHER	Director	August 24, 2012
<u>s/ Arnold I. Burns</u> ARNOLD I. BURNS	Director	August 24, 2012
<u>ABRAHAM E. COHEN</u>	Director	August____, 2012
<u>s/ Alfred D. Kingsley</u> ALFRED D. KINGSLEY	Director	August 24, 2012
<u>s/ Pedro Lichtinger</u> PEDRO LICHTINGER	Director	August 24, 2012
<u>s/ Judith Segall</u> JUDITH SEGALL	Director	August 24, 2012
<u>s/ Andrew C. von Eschenbach</u> ANDREW C. von ESCHENBACH, M.D.	Director	August 24, 2012

**BIOTIME, INC.**  
\$25,000,000 of  
Shares of Common Stock  
(no par value per share)

**Controlled Equity Offering<sup>SM</sup>**

**Sales Agreement**

August 24, 2012

Cantor Fitzgerald & Co.  
499 Park Avenue  
New York, NY 10022

Ladies and Gentlemen:

BioTime, Inc., a California corporation (the "**Company**"), confirms its agreement (this "**Agreement**") with Cantor Fitzgerald & Co. (the "**Agent**"), as follows:

1. **Issuance and Sale of Shares.** The Company agrees that, from time to time during the term of this Agreement, on the terms and subject to the conditions set forth herein, it may issue and sell through the Agent, up to \$25,000,000 of shares (the "**Maximum Amount**") of common stock (the "**Placement Shares**") of the Company, no par value per share (the "**Common Stock**"). Notwithstanding anything to the contrary contained herein, the parties hereto agree that compliance with the limitations set forth in this Section 1 on the amount of Placement Shares issued and sold under this Agreement shall be the sole responsibility of the Company and that Agent shall have no obligation in connection with such compliance. The issuance and sale of Placement Shares through Agent will be effected pursuant to the Registration Statement (as defined below) filed by the Company and which will be declared effective by the Securities and Exchange Commission (the "**Commission**"), although nothing in this Agreement shall be construed as requiring the Company to use the Registration Statement to issue Common Stock.

The Company has filed or will file, in accordance with the provisions of the Securities Act of 1933, as amended (the "**Securities Act**") and the rules and regulations thereunder (the "**Securities Act Regulations**"), with the Commission a registration statement on Form S-3, including a base prospectus, relating to certain securities, including the Placement Shares to be issued from time to time by the Company, and which incorporates by reference documents that the Company has filed or will file in accordance with the provisions of the Securities Exchange Act of 1934, as amended (the "**Exchange Act**"), and the rules and regulations thereunder. The Company has prepared a prospectus supplement specifically relating to the Placement Shares (the "**Prospectus Supplement**") to the base prospectus included as part of such registration statement. The Company will furnish to the Agent, for use by the Agent, copies of the prospectus included as part of such registration statement, as supplemented by the Prospectus Supplement, relating to the Placement Shares. Except where the context otherwise requires, such registration statement, including all documents filed as part thereof or incorporated by reference therein, and including any information contained in a Prospectus (as defined below) subsequently filed with the Commission pursuant to Rule 424(b) under the Securities Act Regulations or deemed to be a part of such registration statement pursuant to Rule 430B of the Securities Act Regulations, is herein called the "**Registration Statement**." The base prospectus, including all documents incorporated therein by reference, included in the Registration Statement, as it may be supplemented by the Prospectus Supplement, in the form in which such prospectus and/or Prospectus Supplement have most recently been filed by the Company with the Commission pursuant to Rule 424(b) under the Securities Act Regulations, together with the then issued Issuer Free Writing Prospectus(es), is herein called the "**Prospectus**." Any reference herein to the Registration Statement, the Prospectus or any amendment or supplement thereto shall be deemed to refer to and include the documents incorporated by reference therein, and any reference herein to the terms "amend," "amendment" or "supplement" with respect to the Registration Statement or the Prospectus shall be deemed to refer to and include the filing after the execution hereof of any document with the Commission deemed to be incorporated by reference therein.

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Any reference herein to the Registration Statement, any Prospectus Supplement, Prospectus or any Issuer Free Writing Prospectus (defined below) shall be deemed to refer to and include the documents, if any, incorporated by reference therein (the **"Incorporated Documents"**), including, unless the context otherwise requires, the documents, if any, filed as exhibits to such Incorporated Documents. Any reference herein to the terms "amend," "amendment" or "supplement" with respect to the Registration Statement, any Prospectus Supplement, the Prospectus or any Issuer Free Writing Prospectus shall be deemed to refer to and include the filing of any document under the Exchange Act on or after the most-recent effective date of the Registration Statement, or the date of the Prospectus Supplement, Prospectus or such Issuer Free Writing Prospectus, as the case may be, and incorporated therein by reference. For purposes of this Agreement, all references to the Registration Statement, the Prospectus or to any amendment or supplement thereto shall be deemed to include the most recent copy filed with the Commission pursuant to its Electronic Data Gathering Analysis and Retrieval System, or if applicable, the Interactive Data Electronic Application system when used by the Commission (collectively, **"EDGAR"**).

2. **Placements.** Each time that the Company wishes to issue and sell Placement Shares hereunder (each, a **"Placement"**), it will notify the Agent by email notice (or other method mutually agreed to in writing by the Parties) of the number of Placement Shares, the time period during which sales are requested to be made, any limitation on the number of Placement Shares that may be sold in any one day and any minimum price below which sales may not be made (a **"Placement Notice"**), the form of which is attached hereto as Schedule 1. The Placement Notice shall originate from any of the individuals from the Company set forth on Schedule 3 (with a copy to each of the other individuals from the Company listed on such schedule), and shall be addressed to each of the individuals from the Agent set forth on Schedule 3, as such Schedule 3 may be amended from time to time. The Placement Notice shall be effective unless and until (i) the Agent declines to accept the terms contained therein for any reason, in its sole discretion, (ii) the entire amount of the Placement Shares thereunder have been sold, (iii) the Company suspends or terminates the Placement Notice or (iv) this Agreement has been terminated under the provisions of Section 12. The amount of any discount, commission or other compensation to be paid by the Company to Agent in connection with the sale of the Placement Shares shall be calculated in accordance with the terms set forth in Schedule 2. It is expressly acknowledged and agreed that neither the Company nor the Agent will have any obligation whatsoever with respect to a Placement or any Placement Shares unless and until the Company delivers a Placement Notice to the Agent and the Agent does not decline such Placement Notice pursuant to the terms set forth above, and then only upon the terms specified therein and herein. In the event of a conflict between the terms of this Agreement and the terms of a Placement Notice, the terms of the Placement Notice will control.

3. Sale of Placement Shares by Agent. Subject to the provisions of Section 5(a), the Agent, for the period specified in the Placement Notice, will use its commercially reasonable efforts consistent with its normal trading and sales practices and applicable state and federal laws, rules and regulations and the rules of the NYSE MKT (the “Exchange”), to sell the Placement Shares up to the amount specified, and otherwise in accordance with the terms of such Placement Notice. The Agent will provide written confirmation to the Company no later than the opening of the Trading Day (as defined below) immediately following the Trading Day on which it has made sales of Placement Shares hereunder setting forth the number of Placement Shares sold on such day, the compensation payable by the Company to the Agent pursuant to Section 2 with respect to such sales, and the Net Proceeds (as defined below) payable to the Company, with an itemization of the deductions made by the Agent (as set forth in Section 5(b)) from the gross proceeds that it receives from such sales. Subject to the terms of the Placement Notice, the Agent may sell Placement Shares by any method permitted by law deemed to be an “at the market” offering as defined in Rule 415 of the Securities Act Regulations, including without limitation sales made directly on the Exchange, on any other existing trading market for the Common Stock or to or through a market maker. Subject to the terms of a Placement Notice, the Agent may also sell Placement Shares by any other method permitted by law, including but not limited to in privately negotiated transactions. “Trading Day” means any day on which Common Stock is traded on the Exchange.

4. Suspension of Sales. The Company or the Agent may, upon notice to the other party in writing (including by email correspondence to each of the individuals of the other Party set forth on Schedule 3, if receipt of such correspondence is actually acknowledged by any of the individuals to whom the notice is sent, other than via auto-reply) or by telephone (confirmed immediately by verifiable facsimile transmission or email correspondence to each of the individuals of the other Party set forth on Schedule 3), suspend any sale of Placement Shares (a “Suspension”); provided, however, that such suspension shall not affect or impair any party’s obligations with respect to any Placement Shares sold hereunder prior to the receipt of such notice. While a Suspension is in effect any obligation under Sections 7(l), 7(m), and 7(n) with respect to the delivery of certificates, opinions, or comfort letters to the Agent, shall be waived, provided, however, that such waiver shall not apply for the Representation Date (defined below) occurring on the date that the Company files its annual report on Form 10-K. Each of the parties agrees that no such notice under this Section 4 shall be effective against any other party unless it is made to one of the individuals named on Schedule 3 hereto, as such Schedule may be amended from time to time.

5. Sale and Delivery to the Agent; Settlement.

(a) Sale of Placement Shares. On the basis of the representations and warranties herein contained and subject to the terms and conditions herein set forth, upon the Agent's acceptance of the terms of a Placement Notice, and unless the sale of the Placement Shares described therein has been declined, suspended, or otherwise terminated in accordance with the terms of this Agreement, the Agent, for the period specified in the Placement Notice, will use its commercially reasonable efforts consistent with its normal trading and sales practices and applicable law and regulations to sell such Placement Shares up to the amount specified, and otherwise in accordance with the terms of such Placement Notice. The Company acknowledges and agrees that (i) there can be no assurance that the Agent will be successful in selling Placement Shares, (ii) the Agent will incur no liability or obligation to the Company or any other person or entity if it does not sell Placement Shares for any reason other than a failure by the Agent to use its commercially reasonable efforts consistent with its normal trading and sales practices and applicable law and regulations to sell such Placement Shares as required under this Agreement and (iii) the Agent shall be under no obligation to purchase Placement Shares on a principal basis pursuant to this Agreement, except as otherwise agreed by the Agent and the Company.

(b) Settlement of Placement Shares. Unless otherwise specified in the applicable Placement Notice, settlement for sales of Placement Shares will occur on the third (3<sup>rd</sup>) Trading Day (or such earlier day as is industry practice for regular-way trading) following the date on which such sales are made (each, a "**Settlement Date**"). The Agent shall notify the Company of each sale of Placement Shares on the date of such sale. The amount of proceeds to be delivered to the Company on a Settlement Date against receipt of the Placement Shares sold (the "**Net Proceeds**") will be equal to the aggregate sales price received by the Agent, after deduction for (i) the Agent's commission, discount or other compensation for such sales payable by the Company pursuant to Section 2 hereof, and (ii) any transaction fees imposed by any governmental or self-regulatory organization in respect of such sales.

(c) Delivery of Placement Shares. On or before each Settlement Date, the Company will, or will cause its transfer agent to, electronically transfer the Placement Shares being sold by crediting the Agent's or its designee's account (provided the Agent shall have given the Company written notice of such designee at least one Trading Day prior to the Settlement Date) at The Depository Trust Company through its Deposit and Withdrawal at Custodian System or by such other means of delivery as may be mutually agreed upon by the parties hereto which in all cases shall be freely tradable, transferable, registered shares in good deliverable form. On each Settlement Date, the Agent will deliver the related Net Proceeds in same day funds to an account designated by the Company on, or prior to, the Settlement Date. The Company agrees that if the Company, or its transfer agent (if applicable), defaults in its obligation to deliver Placement Shares on a Settlement Date, the Company agrees that in addition to and in no way limiting the rights and obligations set forth in Section 10(a) hereto, it will (i) hold the Agent harmless against any loss, claim, damage, or expense (including reasonable legal fees and expenses), as incurred, arising out of or in connection with such default by the Company or its transfer agent (if applicable) and (ii) pay to the Agent any commission, discount, or other compensation to which it would otherwise have been entitled absent such default.

(d) Denominations; Registration. Certificates for the Placement Shares, if any, shall be in such denominations and registered in such names as the Agent may request in writing at least one full Business Day (as defined below) before the Settlement Date. The certificates for the Placement Shares, if any, will be made available by the Company for examination and packaging by the Agent in The City of New York not later than noon (New York time) on the Business Day prior to the Settlement Date.

(e) Limitations on Offering Size. Under no circumstances shall the Company cause or request the offer or sale of any Placement Shares if, after giving effect to the sale of such Placement Shares, the aggregate gross sales proceeds of Placement Shares sold pursuant to this Agreement would exceed the lesser of (A) together with all sales of Placement Shares under this Agreement, the Maximum Amount, (B) the amount available for offer and sale under the currently effective Registration Statement and (C) the amount authorized from time to time to be issued and sold under this Agreement by the Company's board of directors, a duly authorized committee thereof or a duly authorized executive committee, and notified to the Agent in writing. Under no circumstances shall the Company cause or request the offer or sale of any Placement Shares pursuant to this Agreement at a price lower than the minimum price authorized from time to time by the Company's board of directors, a duly authorized committee thereof or a duly authorized executive committee, and notified to the Agent in writing. Further, under no circumstances shall the Company cause or permit the aggregate offering amount of Placement Shares sold pursuant to this Agreement to exceed the Maximum Amount.

6. Representations and Warranties of the Company. The Company represents and warrants to, and agrees with Agent that as of the date of this Agreement and as of each Applicable Time (as defined below):

(a) Registration Statement and Prospectus. The Company and the transactions contemplated by this Agreement meet the requirements for and comply with the conditions for the use of Form S-3 under the Securities Act. The Registration Statement has been or will be filed with the Commission and will be declared effective by the Commission under the Securities Act prior to the issuance of any Placement Notices by the Company. The Prospectus Supplement will name the Agent as the agent in the section entitled "Plan of Distribution." The Company has not received, and has no notice of, any order of the Commission preventing or suspending the use of the Registration Statement, or threatening or instituting proceedings for that purpose. The Registration Statement and the offer and sale of Placement Shares as contemplated hereby meet the requirements of Rule 415 under the Securities Act and comply in all material respects with said Rule. Any statutes, regulations, contracts or other documents that are required to be described in the Registration Statement or the Prospectus or to be filed as exhibits to the Registration Statement have been so described or filed. Copies of the Registration Statement, the Prospectus, and any such amendments or supplements and all documents incorporated by reference therein that were filed with the Commission on or prior to the date of this Agreement have been delivered, or are available through EDGAR, to Agent and its counsel. The Company has not distributed and, prior to the later to occur of each Settlement Date and completion of the distribution of the Placement Shares, will not distribute any offering material in connection with the offering or sale of the Placement Shares other than the Registration Statement and the Prospectus and any Issuer Free Writing Prospectus (as defined below) to which Agent has consented. The Common Stock is currently listed on the Exchange under the trading symbol "BTX." Except as disclosed in the Registration Statement, the Company has not, in the 12 months preceding the date hereof, received notice from the Exchange to the effect that the Company is not in compliance with the listing or maintenance requirements. The Company has no reason to believe that it will not in the foreseeable future continue to be in compliance with all such listing and maintenance requirements.

(b) No Misstatement or Omission. The Registration Statement, when it became or becomes effective, and the Prospectus, and any amendment or supplement thereto, on the date of such Prospectus or amendment or supplement, conformed and will conform in all material respects with the requirements of the Securities Act. At each Settlement Date, the Registration Statement and the Prospectus, as of such date, will conform in all material respects with the requirements of the Securities Act. The Registration Statement, when it became or becomes effective, did not, and will not, contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading. The Prospectus and any amendment and supplement thereto, on the date thereof and at each Applicable Time (defined below), did not or will not include an untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in light of the circumstances under which they were made, not misleading. The documents incorporated by reference in the Prospectus or any Prospectus Supplement did not, and any further documents filed and incorporated by reference therein will not, when filed with the Commission, contain an untrue statement of a material fact or omit to state a material fact required to be stated in such document or necessary to make the statements in such document, in light of the circumstances under which they were made, not misleading. The foregoing shall not apply to statements in, or omissions from, any such document made in reliance upon, and in conformity with, information furnished to the Company by Agent specifically for use in the preparation thereof.

(c) Conformity with Securities Act and Exchange Act. The Registration Statement, the Prospectus, any Issuer Free Writing Prospectus or any amendment or supplement thereto, and the documents incorporated by reference in the Registration Statement, the Prospectus or any amendment or supplement thereto, when such documents were or are filed with the Commission under the Securities Act or the Exchange Act or became or become effective under the Securities Act, as the case may be, conformed or will conform in all material respects with the requirements of the Securities Act and the Exchange Act, as applicable.

(d) Financial Information. The consolidated financial statements of the Company included or incorporated by reference in the Registration Statement, the Prospectus and the Issuer Free Writing Prospectuses, if any, together with the related notes and schedules, present fairly, in all material respects, the consolidated financial position of the Company and the Subsidiaries (as defined below) as of the dates indicated and the consolidated results of operations, cash flows and changes in stockholders' equity of the Company for the periods specified and have been prepared in compliance with the requirements of the Securities Act and Exchange Act and in conformity with GAAP (as defined below) applied on a consistent basis during the periods involved; the other financial and statistical data with respect to the Company and the Subsidiaries (as defined below) contained or incorporated by reference in the Registration Statement, the Prospectus and the Issuer Free Writing Prospectuses, if any, are accurately and fairly presented and prepared on a basis consistent with the financial statements and books and records of the Company; there are no financial statements (historical or pro forma) that are required to be included or incorporated by reference in the Registration Statement, or the Prospectus that are not included or incorporated by reference as required; the Company and the Subsidiaries (as defined below) do not have any material liabilities or obligations, direct or contingent (including any off-balance sheet obligations), not described in the Registration Statement (excluding the exhibits thereto), and the Prospectus; and all disclosures contained or incorporated by reference in the Registration Statement, the Prospectus and the Issuer Free Writing Prospectuses, if any, regarding "non-GAAP financial measures" (as such term is defined by the rules and regulations of the Commission) comply with Regulation G of the Exchange Act and Item 10 of Regulation S-K under the Securities Act, to the extent applicable.



(e) Conformity with EDGAR Filing. The Prospectus delivered to Agent for use in connection with the sale of the Placement Shares pursuant to this Agreement will be identical to the versions of the Prospectus created to be transmitted to the Commission for filing via EDGAR, except to the extent permitted by Regulation S-T.

(f) Organization. The Company and each of its Subsidiaries (as defined below) are, and will be, duly organized, validly existing as a corporation and in good standing under the laws of their respective jurisdictions of organization. The Company and each of its Subsidiaries (as defined below) are, and will be, duly licensed or qualified as a foreign corporation for transaction of business and in good standing under the laws of each other jurisdiction in which their respective ownership or lease of property or the conduct of their respective businesses requires such license or qualification, and have all corporate power and authority necessary to own or hold their respective properties and to conduct their respective businesses as described in the Registration Statement and the Prospectus, except where the failure to be so qualified or in good standing or have such power or authority would not, individually or in the aggregate, have a material adverse effect or would reasonably be expected to have a material adverse effect on or affecting the assets, business, operations, earnings, properties, condition (financial or otherwise), prospects, stockholders' equity or results of operations of the Company and the Subsidiaries (as defined below) taken as a whole, or prevent or materially interfere with consummation of the transactions contemplated hereby (a "**Material Adverse Effect**").

(g) Subsidiaries. The subsidiaries set forth on Schedule 4 (collectively, the "**Subsidiaries**"), are the Company's only significant subsidiaries (as such term is defined in Rule 1-02 of Regulation S-X promulgated by the Commission). Except as set forth in the Registration Statement and in the Prospectus, the Company owns, directly or indirectly, all of the equity interests of the Subsidiaries free and clear of any lien, charge, security interest, encumbrance, right of first refusal or other restriction, and all the equity interests of the Subsidiaries are validly issued and are fully paid, nonassessable and free of preemptive and similar rights.

(h) No Violation or Default. Neither the Company nor any of its Subsidiaries is (i) in violation of its charter or by-laws or similar organizational documents; (ii) in default, and no event has occurred that, with notice or lapse of time or both, would constitute such a default, in the due performance or observance of any term, covenant or condition contained in any indenture, mortgage, deed of trust, loan agreement or other agreement or instrument to which the Company or any of its Subsidiaries is a party or by which the Company or any of its Subsidiaries is bound or to which any of the property or assets of the Company or any of its Subsidiaries are subject; or (iii) in violation of any law or statute or any judgment, order, rule or regulation of any court or arbitrator or governmental or regulatory authority, except, in the case of each of clauses (ii) and (iii) above, for any such violation or default that would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect. To the Company's knowledge, no other party under any material contract or other agreement to which it or any of its Subsidiaries is a party is in default in any respect thereunder where such default would have a Material Adverse Effect.

(i) No Material Adverse Change. Subsequent to the respective dates as of which information is given in the Registration Statement, the Prospectus and the Free Writing Prospectuses, if any (including any document deemed incorporated by reference therein), there has not been (i) any Material Adverse Effect, or the occurrence of any development that the Company reasonably expects will result in a Material Adverse Effect, (ii) any transaction which is material to the Company and the Subsidiaries taken as a whole, (iii) any obligation or liability, direct or contingent (including any off-balance sheet obligations), incurred by the Company or any Subsidiary, which is material to the Company and the Subsidiaries taken as a whole, (iv) any material change in the capital stock or outstanding long-term indebtedness of the Company or any of its Subsidiaries or (v) any dividend or distribution of any kind declared, paid or made on the capital stock of the Company or any Subsidiary, other than in each case above in the ordinary course of business or as otherwise disclosed in the Registration Statement or Prospectus (including any document deemed incorporated by reference therein).

(j) Capitalization. The issued and outstanding shares of capital stock of the Company have been validly issued, are fully paid and nonassessable and, other than as disclosed in the Registration Statement or the Prospectus, are not subject to any preemptive rights, rights of first refusal or similar rights. The Company has an authorized, issued and outstanding capitalization as set forth in the Registration Statement and the Prospectus as of the dates referred to therein (other than the grant of additional options under the Company's existing stock option plans, or changes in the number of outstanding shares of Common Stock of the Company due to the issuance of shares upon the exercise or conversion of securities exercisable for, or convertible into, Common Stock outstanding on the date hereof) and such authorized capital stock conforms to the description thereof set forth in the Registration Statement and the Prospectus. The description of the securities of the Company in the Registration Statement and the Prospectus is complete and accurate in all material respects. Except as disclosed in or contemplated by the Registration Statement or the Prospectus, as of the date referred to therein, the Company does not have outstanding any options to purchase, or any rights or warrants to subscribe for, or any securities or obligations convertible into, or exchangeable for, or any contracts or commitments to issue or sell, any shares of capital stock or other securities.

(k) Authorization; Enforceability. The Company has full legal right, power and authority to enter into this Agreement and perform the transactions contemplated hereby. This Agreement has been duly authorized, executed and delivered by the Company and is a legal, valid and binding agreement of the Company enforceable in accordance with its terms, except to the extent that enforceability may be limited by bankruptcy, insolvency, reorganization, moratorium or similar laws affecting creditors' rights generally and by general equitable principles.

(l) Authorization of Placement Shares. The Placement Shares, when issued and delivered pursuant to the terms approved by the board of directors of the Company or a duly authorized committee thereof, or a duly authorized executive committee, against payment therefor as provided herein, will be duly and validly authorized and issued and fully paid and nonassessable, free and clear of any pledge, lien, encumbrance, security interest or other claim, including any statutory or contractual preemptive rights, resale rights, rights of first refusal or other similar rights, and will be registered pursuant to Section 12 of the Exchange Act. The Placement Shares, when issued, will conform in all material respects to the description thereof set forth in or incorporated into the Prospectus.

(m) No Consents Required. No consent, approval, authorization, order, registration or qualification of or with any court or arbitrator or governmental or regulatory authority is required for the execution, delivery and performance by the Company of this Agreement, the issuance and sale by the Company of the Placement Shares, except for such consents, approvals, authorizations, orders and registrations or qualifications as may be required under applicable state securities laws or by the by-laws and rules of the Financial Industry Regulatory Authority (“**FINRA**”) or the Exchange in connection with the sale of the Placement Shares by the Agent.

(n) No Preferential Rights. Except as set forth in the Registration Statement and the Prospectus, (i) no person, as such term is defined in Rule 1-02 of Regulation S-X promulgated under the Securities Act (each, a “**Person**”), has the right, contractual or otherwise, to cause the Company to issue or sell to such Person any Common Stock or shares of any other capital stock or other securities of the Company, (ii) no Person has any preemptive rights, resale rights, rights of first refusal, or any other rights (whether pursuant to a “poison pill” provision or otherwise) to purchase any Common Stock or shares of any other capital stock or other securities of the Company, (iii) no Person has the right to act as an underwriter or as a financial advisor to the Company in connection with the offer and sale of the Common Stock, and (iv) no Person has the right, contractual or otherwise, to require the Company to register under the Securities Act any Common Stock or shares of any other capital stock or other securities of the Company, or to include any such shares or other securities in the Registration Statement or the offering contemplated thereby, whether as a result of the filing or effectiveness of the Registration Statement or the sale of the Placement Shares as contemplated thereby or otherwise.

(o) Independent Public Accounting Firm. Rothstein Kass (the “**Accountant**”), whose report on the consolidated financial statements of the Company is filed with the Commission as part of the Registration Statement and the Prospectus, are and, during the periods covered by their report, were an independent registered public accounting firm within the meaning of the Securities Act and the Public Company Accounting Oversight Board (United States). To the Company’s knowledge, after due and careful inquiry, the Accountant is not in violation of the auditor independence requirements of the Sarbanes-Oxley Act of 2002 (the “**Sarbanes-Oxley Act**”) with respect to the Company.

(p) Enforceability of Agreements. All agreements between the Company and third parties expressly referenced in the Prospectus are legal, valid and binding obligations of the Company enforceable in accordance with their respective terms, except to the extent that (i) enforceability may be limited by bankruptcy, insolvency, reorganization, moratorium or similar laws affecting creditors’ rights generally and by general equitable principles and (ii) the indemnification provisions of certain agreements may be limited by federal or state securities laws or public policy considerations in respect thereof.

(q) No Litigation. Except as set forth in the Registration Statement or the Prospectus, there are no legal, governmental or regulatory actions, suits or proceedings pending, nor, to the Company's knowledge, any legal, governmental or regulatory audits or investigations, to which the Company or a Subsidiary is a party or to which any property of the Company or any of its Subsidiaries is the subject that, individually or in the aggregate, if determined adversely to the Company or any of its Subsidiaries, would reasonably be expected to have a Material Adverse Effect or materially and adversely affect the ability of the Company to perform its obligations under this Agreement; to the Company's knowledge, no such actions, suits or proceedings are threatened or contemplated by any governmental or regulatory authority or threatened by others; and (i) there are no current or pending legal, governmental or regulatory audits or investigations, actions, suits or proceedings that are required under the Securities Act to be described in the Prospectus that are not so described; and (ii) there are no contracts or other documents that are required under the Securities Act to be filed as exhibits to the Registration Statement that are not so filed.

(r) Consents and Permits. Except as disclosed in the Registration Statement and the Prospectus, the Company and its Subsidiaries have made all filings, applications and submissions required by, possesses and is operating in compliance with, all approvals, licenses, certificates, certifications, clearances, consents, grants, exemptions, marks, notifications, orders, permits and other authorizations issued by, the appropriate federal, state or foreign governmental or regulatory authorities (including, without limitation, the United States Food and Drug Administration (the "**FDA**"), the United States Drug Enforcement Administration or any other foreign, federal, state, provincial, court or local government or regulatory authorities including self-regulatory organizations engaged in the regulation of clinical trials, pharmaceuticals, biologics or biohazardous substances or materials) necessary for the ownership or lease of their respective properties or to conduct its businesses as described in the Registration Statement and the Prospectuses (collectively, "**Permits**"), except for such Permits the failure of which to possess, obtain or make the same would not reasonably be expected to have a Material Adverse Effect; the Company and its Subsidiaries are in compliance with the terms and conditions of all such Permits, except where the failure to be in compliance would not reasonably be expected to have a Material Adverse Effect; all of the Permits are valid and in full force and effect, except where any invalidity, individually or in the aggregate, would be reasonably expected to have a Material Adverse Effect; and neither the Company nor any of its Subsidiaries has received any written notice of proceedings relating to the limitation, revocation, cancellation, suspension, modification or non-renewal of any such Permit which, singly or in the aggregate, if the subject of an unfavorable decision, ruling or finding, would have a Material Adverse Effect, and has any reason to believe that any such license, certificate, permit or authorization will not be renewed in the ordinary course. To the extent required by applicable laws and regulations of the FDA, the Company or the applicable Subsidiary has submitted to the FDA an Investigational New Drug Application or amendment or supplement thereto for each clinical trial it has conducted or sponsored or is conducting or sponsoring; all such submissions were in material compliance with applicable laws and rules and regulations when submitted and no material deficiencies have been asserted by the FDA with respect to any such submissions.

(s) Regulatory Filings. Except as disclosed in the Registration Statement and the Prospectus, neither the Company nor any of its Subsidiaries has failed to file with the applicable regulatory authorities (including, without limitation, the FDA, or any foreign, federal, state, provincial or local governmental or regulatory authority performing functions similar to those performed by the FDA) any required filing, declaration, listing, registration, report or submission, except for such failures that, individually or in the aggregate, would not reasonably be expected to have a Material Adverse Effect; except as disclosed in the Registration Statement and the Prospectuses, all such filings, declarations, listings, registrations, reports or submissions were in compliance with applicable laws when filed and no deficiencies have been asserted by any applicable regulatory authority with respect to any such filings, declarations, listings, registrations, reports or submissions, except for any deficiencies that, individually or in the aggregate, would not have a Material Adverse Effect. The Company and its Subsidiaries have operated and currently are, in all material respects, in compliance with the United States Federal Food, Drug, and Cosmetic Act, Executive Order 13482 as issued on March 9, 2009, the Laboratory Animal Welfare Act of 1966, as amended, and all other related Laws and governmental guidelines and standards governing the use of animals in research, all applicable rules, regulations and standards of the FDA and other federal, state, local and foreign governmental bodies exercising comparable authority which are applicable to its business. Neither the Company nor any of its Subsidiaries have any knowledge of any studies, tests or trials not described in the Prospectus the results of which reasonably call into question in any material respect the results of the studies, tests and trials described in the Prospectus.

(t) Intellectual Property. Except as disclosed in the Registration Statement and the Prospectus and to the Company's knowledge, the Company and its Subsidiaries own, possess, license or have other rights to use all Intellectual Property necessary for the conduct of their respective businesses as now conducted except to the extent that the failure to own, possess, license or otherwise hold adequate rights to use such Intellectual Property would not, individually or in the aggregate, have a Material Adverse Effect. Except as disclosed in the Registration Statement and the Prospectus (a) to the Company's knowledge, there are no rights of third parties to use any Intellectual Property owned by the Company and its Subsidiaries that the Company reasonably expects would interfere with the use of such Intellectual Property in the operation of the Company's and its Subsidiaries' respective businesses; (b) to the Company's knowledge, there is no infringement by third parties of any Intellectual Property owned or licensed by the Company or its Subsidiaries; (c) there is no pending or, to the Company's knowledge, threatened action, suit, proceeding or claim by others challenging the Company's and its Subsidiaries' rights in or to any Intellectual Property owned or licensed by the Company or its Subsidiaries, and the Company is unaware of any facts which could form a reasonable basis for any such action, suit, proceeding or claim; (d) there is no pending or, to the Company's knowledge, threatened action, suit, proceeding or claim by others challenging the validity or scope of any Intellectual Property owned or licensed by the Company or its Subsidiaries; (e) there is no pending or, to the Company's knowledge, threatened action, suit, proceeding or claim by others that the Company and its Subsidiaries infringe or otherwise violate any patent, trademark, copyright, trade secret or other proprietary rights of others; (f) to the Company's knowledge, there is no third-party U.S. patent or published U.S. patent application which contains claims for which an Interference Proceeding (as defined in 35 U.S.C. § 135) has been commenced against any patent or patent application described in the Prospectus as being owned by or licensed to the Company; and (g) the Company and its Subsidiaries have complied in all material respects with the terms of each agreement pursuant to which Intellectual Property has been licensed to the Company or such Subsidiary, and all such agreements are in full force and effect, except, in the case of any of clauses (a)-(g) above, for any such infringement by third parties or any such pending or threatened suit, action, proceeding or claim as would not, individually or in the aggregate, reasonably be expected to result in a Material Adverse Effect. "**Intellectual Property**" means all foreign and domestic patents, patent applications, trade and service marks, trade and service mark registrations, trade names, copyrights, licenses, inventions, trade secrets, technology, Internet domain names, know-how and other intellectual property,

(u) Clinical Studies. To the Company's knowledge, the clinical and/or preclinical studies and tests and clinical trials described in the Prospectus were, and, if still pending, are being, to the Company's knowledge, conducted in all material respects in accordance with the experimental protocols, procedures and controls pursuant to, where applicable, accepted professional and scientific standards for products or product candidates comparable to those being developed by the Company or its Subsidiaries, except for any failures to conduct such studies, tests and trials in accordance with such protocols, procedures and controls as would not, individually or in the aggregate, reasonably be expected to result in a Material Adverse Effect. Neither the Company nor any of its Subsidiaries are aware of any clinical and/or preclinical tests, studies or trials not described in the Prospectus, the results of which reasonably call into question the results of the tests, studies and trials described in the Prospectus; and neither the Company nor any of its Subsidiaries have received any written notice or correspondence from the FDA or any foreign, state or local governmental body exercising comparable authority or any institutional review board or comparable authority requiring the termination, suspension, clinical hold or material modification of any tests, studies or trials. The Company and its Subsidiaries have conducted, and currently are conducting, all research, development, production and clinical and/or preclinical studies in accordance, in all material respects, with Current Good Tissue Practices, Good Clinical Practices and Good Laboratory Practices as issued by the FDA, and in accordance, in all material respects, with the parameters and guidelines of any applicable research or development grant program, whether awarded by a governmental or private entity.

(v) Market Capitalization. At the time the Registration Statement was or will be originally declared effective, and at the time the Company's most recent Annual Report on Form 10-K was filed with the Commission, the Company has met or will meet the then applicable requirements for the use of Form S-3 under the Securities Act, including but not limited to Instruction I.B.1 of Form S-3. The Company satisfies the pre-1992 eligibility requirements for the use of a registration statement on Form S-3 in connection with this offering (the pre-1992 eligibility requirements for the use of the registration statement on Form S-3 include (i) having a non-affiliate, public common equity float of at least \$150 million or a non-affiliate, public common equity float of at least \$100 million and annual trading volume of at least three million shares and (ii) having been subject to the Exchange Act reporting requirements for a period of 36 months). The Company is not a shell company (as defined in Rule 405 under the Securities Act) and has not been a shell company for at least 12 calendar months previously and if it has been a shell company at any time previously, has filed current Form 10 information (as defined in Instruction I.B.6 of Form S-3) with the Commission at least 12 calendar months previously reflecting its status as an entity that is not a shell company.

(w) No Material Defaults. Neither the Company nor any of the Subsidiaries has defaulted on any installment on indebtedness for borrowed money or on any rental on one or more long-term leases, which defaults, individually or in the aggregate, would reasonably be expected to have a Material Adverse Effect. The Company has not filed a report pursuant to Section 13(a) or 15(d) of the Exchange Act since the filing of its last Annual Report on Form 10-K, indicating that it (i) has failed to pay any dividend or sinking fund installment on preferred stock or (ii) has defaulted on any installment on indebtedness for borrowed money or on any rental on one or more long-term leases, which defaults, individually or in the aggregate, would reasonably be expected to have a Material Adverse Effect.

(x) Certain Market Activities. Neither the Company, nor any of the Subsidiaries, nor any of their respective directors, officers or controlling persons has taken, directly or indirectly, any action designed, or that has constituted or might reasonably be expected to cause or result in, under the Exchange Act or otherwise, the stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of the Placement Shares.

(y) Broker/Dealer Relationships. Neither the Company nor any of the Subsidiaries or any related entities (i) is required to register as a “broker” or “dealer” in accordance with the provisions of the Exchange Act or (ii) directly or indirectly through one or more intermediaries, controls or is a “person associated with a member” or “associated person of a member” (within the meaning set forth in the FINRA Manual).

(z) No Reliance. The Company has not relied upon the Agent or legal counsel for the Agent for any legal, tax or accounting advice in connection with the offering and sale of the Placement Shares.

(aa) Taxes. The Company and each of its Subsidiaries have filed all federal, state, local and foreign tax returns which have been required to be filed and paid all taxes shown thereon through the date hereof, to the extent that such taxes have become due and are not being contested in good faith, except where the failure to so file or pay would not have a Material Adverse Effect. Except as otherwise disclosed in or contemplated by the Registration Statement or the Prospectus, no tax deficiency has been determined adversely to the Company or any of its Subsidiaries which has had, or would reasonably be expected to have, individually or in the aggregate, a Material Adverse Effect. The Company has no knowledge of any federal, state or other governmental tax deficiency, penalty or assessment which has been or might be asserted or threatened against it which would have a Material Adverse Effect.

(bb) Title to Real and Personal Property. Except as set forth in the Registration Statement or the Prospectus, the Company and its Subsidiaries have good and valid title in fee simple to all items of real property and good and valid title to all personal property described in the Registration Statement or Prospectus as being owned by them that are material to the businesses of the Company or such Subsidiary, in each case free and clear of all liens, encumbrances and claims, except those that (i) do not materially interfere with the use made and proposed to be made of such property by the Company and any of its Subsidiaries or (ii) would not reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect. Any real property described in the Registration Statement or Prospectus as being leased by the Company and any of its Subsidiaries is held by them under valid, existing and enforceable leases, except those that (A) do not materially interfere with the use made or proposed to be made of such property by the Company or any of its Subsidiaries or (B) would not be reasonably expected, individually or in the aggregate, to have a Material Adverse Effect.

(cc) Environmental Laws. Except as set forth in the Registration Statement or the Prospectus, the Company and its Subsidiaries (i) are in compliance with any and all applicable federal, state, local and foreign laws, rules, regulations, decisions and orders relating to the protection of human health and safety, the environment or hazardous or toxic substances or wastes, pollutants or contaminants (collectively, "Environmental Laws"); (ii) have received and are in compliance with all permits, licenses or other approvals required of them under applicable Environmental Laws to conduct their respective businesses as described in the Registration Statement and the Prospectus; and (iii) have not received notice of any actual or potential liability for the investigation or remediation of any disposal or release of hazardous or toxic substances or wastes, pollutants or contaminants, except, in the case of any of clauses (i), (ii) or (iii) above, for any such failure to comply or failure to receive required permits, licenses, other approvals or liability as would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

(dd) Disclosure Controls. The Company and each of its Subsidiaries maintain systems of internal accounting controls sufficient to provide reasonable assurance that (i) transactions are executed in accordance with management's general or specific authorizations; (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with generally accepted accounting principles and to maintain asset accountability; (iii) access to assets is permitted only in accordance with management's general or specific authorization; and (iv) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any differences. The Company's internal control over financial reporting is effective and the Company is not aware of any material weaknesses in its internal control over financial reporting (other than as set forth in the Prospectus). Since the date of the latest audited financial statements of the Company included in the Prospectus, there has been no change in the Company's internal control over financial reporting that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting (other than as set forth in the Prospectus). The Company has established disclosure controls and procedures (as defined in Exchange Act Rules 13a-15 and 15d-15) for the Company and designed such disclosure controls and procedures to ensure that material information relating to the Company and each of its Subsidiaries is made known to the certifying officers by others within those entities, particularly during the period in which the Company's Annual Report on Form 10-K or Quarterly Report on Form 10-Q, as the case may be, is being prepared. The Company's certifying officers have evaluated the effectiveness of the Company's controls and procedures as of a date within 90 days prior to the filing date of the Form 10-K for the fiscal year most recently ended (such date, the "Evaluation Date"). The Company presented in its Form 10-K for the fiscal year most recently ended the conclusions of the certifying officers about the effectiveness of the disclosure controls and procedures based on their evaluations as of the Evaluation Date and the disclosure controls and procedures are effective. Since the Evaluation Date, there have been no significant changes in the Company's internal controls (as such term is defined in Item 307(b) of Regulation S-K under the Securities Act) or, to the Company's knowledge, in other factors that could significantly affect the Company's internal controls.



(ee) Sarbanes-Oxley. There is and has been no failure on the part of the Company or any of the Company's directors or officers, in their capacities as such, to comply in all material respects with any applicable provisions of the Sarbanes-Oxley Act and the rules and regulations promulgated thereunder. Each of the principal executive officer and the principal financial officer of the Company (or each former principal executive officer of the Company and each former principal financial officer of the Company as applicable) has made all certifications required by Sections 302 and 906 of the Sarbanes-Oxley Act with respect to all reports, schedules, forms, statements and other documents required to be filed by it or furnished by it to the Commission. For purposes of the preceding sentence, "principal executive officer" and "principal financial officer" shall have the meanings given to such terms in the Sarbanes-Oxley Act.

(ff) Finder's Fees. Neither the Company nor any of the Subsidiaries has incurred any liability for any finder's fees, brokerage commissions or similar payments in connection with the transactions herein contemplated, except as may otherwise exist with respect to Agent pursuant to this Agreement.

(gg) Labor Disputes. No labor disturbance by or dispute with employees of the Company or any of its Subsidiaries exists or, to the knowledge of the Company, is threatened which would reasonably be expected to result in a Material Adverse Effect

(hh) Investment Company Act. Neither the Company nor any of the Subsidiaries is or, after giving effect to the offering and sale of the Placement Shares, will be an "investment company" or an entity "controlled" by an "investment company," as such terms are defined in the Investment Company Act of 1940, as amended (the "Investment Company Act").

(ii) Operations. The operations of the Company and its Subsidiaries are and have been conducted at all times in compliance with applicable financial record keeping and reporting requirements of the Currency and Foreign Transactions Reporting Act of 1970, as amended, the money laundering statutes of all jurisdictions to which the Company or its Subsidiaries are subject, the rules and regulations thereunder and any related or similar rules, regulations or guidelines, issued, administered or enforced by any governmental agency (collectively, the "Money Laundering Laws"), except as would not reasonably be expected to result in a Material Adverse Effect; and no action, suit or proceeding by or before any court or governmental agency, authority or body or any arbitrator involving the Company or any of its Subsidiaries with respect to the Money Laundering Laws is pending or, to the knowledge of the Company, threatened.

(jj) Off-Balance Sheet Arrangements. There are no transactions, arrangements and other relationships between and/or among the Company, and/or, to the knowledge of the Company, any of its affiliates and any unconsolidated entity, including, but not limited to, any structural finance, special purpose or limited purpose entity (each, an "Off Balance Sheet Transaction") that could reasonably be expected to affect materially the Company's liquidity or the availability of or requirements for its capital resources, including those Off Balance Sheet Transactions described in the Commission's Statement about Management's Discussion and Analysis of Financial Conditions and Results of Operations (Release Nos. 33-8056; 34-45321; FR-61), required to be described in the Prospectus which have not been described as required.

(kk) Underwriter Agreements. The Company is not a party to any agreement with an agent or underwriter for any other “at-the-market” or continuous equity transaction.

(ll) ERISA. To the knowledge of the Company, each material employee benefit plan, within the meaning of Section 3(3) of the Employee Retirement Income Security Act of 1974, as amended (“ERISA”), that is maintained, administered or contributed to by the Company or any of its affiliates for employees or former employees of the Company and any of its Subsidiaries has been maintained in material compliance with its terms and the requirements of any applicable statutes, orders, rules and regulations, including but not limited to ERISA and the Internal Revenue Code of 1986, as amended (the “Code”); no prohibited transaction, within the meaning of Section 406 of ERISA or Section 4975 of the Code, has occurred which would result in a material liability to the Company with respect to any such plan excluding transactions effected pursuant to a statutory or administrative exemption; and for each such plan that is subject to the funding rules of Section 412 of the Code or Section 302 of ERISA, no “accumulated funding deficiency” as defined in Section 412 of the Code has been incurred, whether or not waived, and the fair market value of the assets of each such plan (excluding for these purposes accrued but unpaid contributions) exceeds the present value of all benefits accrued under such plan determined using reasonable actuarial assumptions.

(mm) Forward Looking Statements. No forward-looking statement (within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act) (a “Forward Looking Statement”) contained in the Registration Statement and the Prospectus has been made or reaffirmed without a reasonable basis or has been disclosed other than in good faith. The Forward Looking Statements incorporated by reference in the Registration Statement and the Prospectus from the Company’s Annual Report on Form 10-K for the fiscal year most recently ended (i) are within the coverage of the safe harbor for forward looking statements set forth in Section 27A of the Securities Act, Rule 175(b) under the Securities Act or Rule 3b-6 under the Exchange Act, as applicable, (ii) were made by the Company with a reasonable basis and in good faith and reflect the Company’s good faith commercially reasonable best estimate of the matters described therein, and (iii) have been prepared in accordance with Item 10 of Regulation S-K under the Securities Act.

(nn) Agent Purchases. The Company acknowledges and agrees that Agent has informed the Company that the Agent may, to the extent permitted under the Securities Act and the Exchange Act, purchase and sell Common Stock for its own account while this Agreement is in effect, provided, that (i) no such purchase or sales shall take place while a Placement Notice is in effect (except to the extent each Agent may engage in sales of Placement Shares purchased or deemed purchased from the Company as a “riskless principal” or in a similar capacity) and (ii) the Company shall not be deemed to have authorized or consented to any such purchases or sales by the Agent.

(oo) Margin Rules. Neither the issuance, sale and delivery of the Placement Shares nor the application of the proceeds thereof by the Company as described in the Registration Statement and the Prospectus will violate Regulation T, U or X of the Board of Governors of the Federal Reserve System or any other regulation of such Board of Governors.

(pp) Insurance. The Company and each of its Subsidiaries carry, or are covered by, insurance in such amounts and covering such risks as the Company and each of its Subsidiaries reasonably believe are adequate for the conduct of their properties and as is customary for companies engaged in similar businesses in similar industries.

(qq) No Improper Practices. (i) Neither the Company nor, to the Company's knowledge, the Subsidiaries, nor to the Company's knowledge, any of their respective executive officers has, in the past five years, made any unlawful contributions to any candidate for any political office (or failed fully to disclose any contribution in violation of law) or made any contribution or other payment to any official of, or candidate for, any federal, state, municipal, or foreign office or other person charged with similar public or quasi-public duty in violation of any law or of the character required to be disclosed in the Prospectus; (ii) no relationship, direct or indirect, exists between or among the Company or, to the Company's knowledge, any Subsidiary or any affiliate of any of them, on the one hand, and the directors, officers and stockholders of the Company or, to the Company's knowledge, any Subsidiary, on the other hand, that is required by the Securities Act to be described in the Registration Statement and the Prospectus that is not so described; (iii) no relationship, direct or indirect, exists between or among the Company or any Subsidiary or any affiliate of them, on the one hand, and the directors, officers, or stockholders of the Company or, to the Company's knowledge, any Subsidiary, on the other hand, that is required by the rules of FINRA to be described in the Registration Statement and the Prospectus that is not so described; (iv) except as described in the Prospectus, there are no material outstanding loans or advances or material guarantees of indebtedness by the Company or, to the Company's knowledge, any Subsidiary to or for the benefit of any of their respective officers or directors or any of the members of the families of any of them; and (v) the Company has not offered, or caused any placement agent to offer, Common Stock to any person with the intent to influence unlawfully (A) a customer or supplier of the Company or any Subsidiary to alter the customer's or supplier's level or type of business with the Company or any Subsidiary or (B) a trade journalist or publication to write or publish favorable information about the Company or any Subsidiary or any of their respective products or services, and, (vi) neither the Company nor any Subsidiary nor, to the Company's knowledge, any employee or agent of the Company or any Subsidiary has made any payment of funds of the Company or any Subsidiary or received or retained any funds in violation of any law, rule or regulation (including, without limitation, the Foreign Corrupt Practices Act of 1977), which payment, receipt or retention of funds is of a character required to be disclosed in the Registration Statement or the Prospectus.

(rr) Status Under the Securities Act. The Company was not and is not an ineligible issuer as defined in Rule 405 under the Securities Act at the times specified in Rules 164 and 433 under the Securities Act in connection with the offering of the Placement Shares.

(ss) No Misstatement or Omission in an Issuer Free Writing Prospectus. Each Issuer Free Writing Prospectus, as of its issue date and as of each Applicable Time (as defined in Section 24 below), did not, does not and will not include any information that conflicted, conflicts or will conflict with the information contained in the Registration Statement or the Prospectus, including any incorporated document deemed to be a part thereof that has not been superseded or modified. The foregoing sentence does not apply to statements in or omissions from any Issuer Free Writing Prospectus based upon and in conformity with written information furnished to the Company by the Agent specifically for use therein.

(tt) No Conflicts. Neither the execution of this Agreement, nor the issuance, offering or sale of the Placement Shares, nor the consummation of any of the transactions contemplated herein and therein, nor the compliance by the Company with the terms and provisions hereof and thereof will conflict with, or will result in a breach of, any of the terms and provisions of, or has constituted or will constitute a default under, or has resulted in or will result in the creation or imposition of any lien, charge or encumbrance upon any property or assets of the Company pursuant to the terms of any contract or other agreement to which the Company may be bound or to which any of the property or assets of the Company is subject, except (i) such conflicts, breaches or defaults as may have been waived and (ii) such conflicts, breaches and defaults that would not have a Material Adverse Effect; nor will such action result (x) in any violation of the provisions of the organizational or governing documents of the Company, or (y) in any material violation of the provisions of any statute or any order, rule or regulation applicable to the Company or of any court or of any federal, state or other regulatory authority or other government body having jurisdiction over the Company.

(uu) (i) The Company represents that, neither the Company nor any of its Subsidiaries (collectively, the “**Entity**”) or any director, officer, employee, agent, affiliate or representative of the Entity, is a government, individual, or entity (in this paragraph (uu), “**Person**”) that is, or is owned or controlled by a Person that is:

(A) the subject of any sanctions administered or enforced by the U.S. Department of Treasury’s Office of Foreign Assets Control, the United Nations Security Council, the European Union, Her Majesty’s Treasury, or other relevant sanctions authority (collectively, “**Sanctions**”), nor

(B) located, organized or resident in a country or territory that is the subject of Sanctions (including, without limitation, Burma/Myanmar, Cuba, Iran, North Korea, Sudan and Syria).

(ii) The Entity represents and covenants that it will not, directly or indirectly, use the proceeds of the offering, or lend, contribute or otherwise make available such proceeds to any subsidiary, joint venture partner or other Person:

(A) to fund or facilitate any activities or business of or with any Person or in any country or territory that, at the time of such funding or facilitation, is the subject of Sanctions; or

(B) in any other manner that will result in a violation of Sanctions by any Person (including any Person participating in the offering, whether as underwriter, advisor, investor or otherwise).

(iii) The Entity represents and covenants that, except as detailed in the Prospectus, for the past 5 years, it has not knowingly engaged in, is not now knowingly engaged in, and will not engage in, any dealings or transactions with any Person, or in any country or territory, that at the time of the dealing or transaction is or was the subject of Sanctions.

(vv) Stock Transfer Taxes. On each Settlement Date, all stock transfer or other taxes (other than income taxes) which are required to be paid in connection with the sale and transfer of the Placement Shares to be sold hereunder will be, or will have been, fully paid or provided for by the Company and all laws imposing such taxes will be or will have been fully complied with.

Any certificate signed by an officer of the Company and delivered to the Agent or to counsel for the Agent pursuant to or in connection with this Agreement shall be deemed to be a representation and warranty by the Company, as applicable, to the Agent as to the matters set forth therein.

7. Covenants of the Company. The Company covenants and agrees with Agent that:

(a) Registration Statement Amendments. After the date of this Agreement and during any period in which a Prospectus relating to any Placement Shares is required to be delivered by Agent under the Securities Act (including in circumstances where such requirement may be satisfied pursuant to Rule 172 under the Securities Act), (i) the Company will notify the Agent promptly of the time when any subsequent amendment to the Registration Statement, other than documents incorporated by reference, has been filed with the Commission and/or has become effective or any subsequent supplement to the Prospectus has been filed and of any request by the Commission for any amendment or supplement to the Registration Statement or Prospectus or for additional information, (ii) the Company will prepare and file with the Commission, promptly upon the Agent's request, any amendments or supplements to the Registration Statement or Prospectus that, in such Agent's reasonable opinion, may be necessary or advisable in connection with the distribution of the Placement Shares by the Agent (provided, however, that the failure of the Agent to make such request shall not relieve the Company of any obligation or liability hereunder, or affect the Agent's right to rely on the representations and warranties made by the Company in this Agreement and provided, further, that the only remedy the Agent shall have with respect to the failure to make such filing shall be to cease making sales under this Agreement until such amendment or supplement is filed); (iii) the Company will not file any amendment or supplement to the Registration Statement or Prospectus relating to the Placement Shares or a security convertible into the Placement Shares unless a copy thereof has been submitted to Agent within a reasonable period of time before the filing and the Agent has not objected thereto (provided, however, that the failure of the Agent to make such objection shall not relieve the Company of any obligation or liability hereunder, or affect the Agent's right to rely on the representations and warranties made by the Company in this Agreement and provided, further, that the only remedy Agent shall have with respect to the failure by the Company to obtain such consent shall be to cease making sales under this Agreement) and the Company will furnish to the Agent at the time of filing thereof a copy of any document that upon filing is deemed to be incorporated by reference into the Registration Statement or Prospectus, except for those documents available via EDGAR; and (iv) the Company will cause each amendment or supplement to the Prospectus to be filed with the Commission as required pursuant to the applicable paragraph of Rule 424(b) of the Securities Act or, in the case of any document to be incorporated therein by reference, to be filed with the Commission as required pursuant to the Exchange Act, within the time period prescribed (the determination to file or not file any amendment or supplement with the Commission under this Section 7(a), based on the Company's reasonable opinion or reasonable objections, shall be made exclusively by the Company).

(b) Notice of Commission Stop Orders. The Company will advise the Agent, promptly after it receives notice or obtains knowledge thereof, of the issuance or threatened issuance by the Commission of any stop order suspending the effectiveness of the Registration Statement, of the suspension of the qualification of the Placement Shares for offering or sale in any jurisdiction, or of the initiation or threatening of any proceeding for any such purpose; and it will promptly use its commercially reasonable efforts to prevent the issuance of any stop order or to obtain its withdrawal if such a stop order should be issued. The Company will advise the Agent promptly after it receives any request by the Commission for any amendments to the Registration Statement or any amendment or supplements to the Prospectus or any Issuer Free Writing Prospectus or for additional information related to the offering of the Placement Shares or for additional information related to the Registration Statement, the Prospectus or any Issuer Free Writing Prospectus.

(c) Delivery of Prospectus; Subsequent Changes. During any period in which a Prospectus relating to the Placement Shares is required to be delivered by the Agent under the Securities Act with respect to the offer and sale of the Placement Shares, (including in circumstances where such requirement may be satisfied pursuant to Rule 172 under the Securities Act), the Company will comply with all requirements imposed upon it by the Securities Act, as from time to time in force, and to file on or before their respective due dates all reports and any definitive proxy or information statements required to be filed by the Company with the Commission pursuant to Sections 13(a), 13(c), 14, 15(d) or any other provision of or under the Exchange Act. If the Company has omitted any information from the Registration Statement pursuant to Rule 430A under the Securities Act, it will use its best efforts to comply with the provisions of and make all requisite filings with the Commission pursuant to said Rule 430A and to notify the Agent promptly of all such filings. If during such period any event occurs as a result of which the Prospectus as then amended or supplemented would include an untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in the light of the circumstances then existing, not misleading, or if during such period it is necessary to amend or supplement the Registration Statement or Prospectus to comply with the Securities Act, the Company will promptly notify Agent to suspend the offering of Placement Shares during such period and the Company will promptly amend or supplement the Registration Statement or Prospectus (at the expense of the Company) so as to correct such statement or omission or effect such compliance.

(d) Listing of Placement Shares. During any period in which the Prospectus relating to the Placement Shares is required to be delivered by the Agent under the Securities Act with respect to the offer and sale of the Placement Shares, the Company will use its reasonable best efforts to cause the Placement Shares to be listed on the Exchange.

(e) Delivery of Registration Statement and Prospectus. The Company will furnish to the Agent and its counsel (at the expense of the Company) copies of the Registration Statement, the Prospectus (including all documents incorporated by reference therein) and all amendments and supplements to the Registration Statement or Prospectus that are filed with the Commission during any period in which a Prospectus relating to the Placement Shares is required to be delivered under the Securities Act (including all documents filed with the Commission during such period that are deemed to be incorporated by reference therein), in each case as soon as reasonably practicable and in such quantities as the Agent may from time to time reasonably request and, at Agent's request, will also furnish copies of the Prospectus to each exchange or market on which sales of the Placement Shares may be made; provided, however, that the Company shall not be required to furnish any document (other than the Prospectus) to the Agent to the extent such document is available on EDGAR.

(f) Earnings Statement. The Company will make generally available to its security holders as soon as practicable, but in any event not later than 15 months after the end of the Company's current fiscal quarter, an earnings statement covering a 12-month period that satisfies the provisions of Section 11(a) and Rule 158 of the Securities Act.

(g) Use of Proceeds. The Company will use the Net Proceeds as described in the Prospectus in the section entitled "Use of Proceeds."

(h) Notice of Other Sales. Without the prior written consent of Agent, the Company will not, directly or indirectly, offer to sell, sell, contract to sell, grant any option to sell or otherwise dispose of any Common Stock (other than the Placement Shares offered pursuant to this Agreement) or securities convertible into or exchangeable for Common Stock, warrants or any rights to purchase or acquire, Common Stock during the period beginning on the fifth (5th) Trading Day immediately prior to the date on which any Placement Notice is delivered to Agent hereunder and ending on the fifth (5th) Trading Day immediately following the final Settlement Date with respect to Placement Shares sold pursuant to such Placement Notice (or, if the Placement Notice has been terminated or suspended prior to the sale of all Placement Shares covered by a Placement Notice, the date of such suspension or termination); and will not directly or indirectly in any other "at-the-market" or continuous equity transaction offer to sell, sell, contract to sell, grant any option to sell or otherwise dispose of any Common Stock (other than the Placement Shares offered pursuant to this Agreement) or securities convertible into or exchangeable for Common Stock, warrants or any rights to purchase or acquire, Common Stock prior to the later of the termination of this Agreement and the sixtieth (60th) day immediately following the final Settlement Date with respect to Placement Shares sold pursuant to such Placement Notice; provided, however, that such restrictions will not be required in connection with the Company's issuance or sale of (i) Common Stock, options to purchase Common Stock or Common Stock issuable upon the exercise of options, pursuant to any employee or director stock option or benefits plan, stock ownership plan or dividend reinvestment plan (but not Common Stock subject to a waiver to exceed plan limits in its dividend reinvestment plan) of the Company whether now in effect or hereafter implemented, (ii) Common Stock issuable upon conversion of securities or the exercise of warrants, options or other rights in effect or outstanding, and disclosed in filings by the Company available on EDGAR or otherwise in writing to the Agent and (iii) Common Stock or securities convertible into or exchangeable for shares of Common Stock as consideration for mergers, acquisitions, other business combinations or strategic alliances occurring after the dates of this Agreement which are not issued for capital raising purposes.

(i) Change of Circumstances. The Company will, at any time during the pendency of a Placement Notice advise the Agent promptly after it shall have received notice or obtained knowledge thereof, of any information or fact that would alter or affect in any material respect any opinion, certificate, letter or other document required to be provided to the Agent pursuant to this Agreement.

(j) Due Diligence Cooperation. The Company will cooperate with any reasonable due diligence review conducted by the Agent or its representatives in connection with the transactions contemplated hereby, including, without limitation, providing information and making available documents and senior corporate officers, during regular business hours and at the Company's principal offices, as the Agent may reasonably request.

(k) Required Filings Relating to Placement of Placement Shares. The Company agrees that on such dates as the Securities Act shall require, the Company will (i) file a prospectus supplement with the Commission under the applicable paragraph of Rule 424(b) under the Securities Act (each and every filing under Rule 424(b), a “**Filing Date**”), which prospectus supplement will set forth, within the relevant period, the amount of Placement Shares sold through the Agent, the Net Proceeds to the Company and the compensation payable by the Company to the Agent with respect to such Placement Shares, and (ii) deliver such number of copies of each such prospectus supplement to each exchange or market on which such sales were effected as may be required by the rules or regulations of such exchange or market.

(l) Representation Dates; Certificate. (1) Prior to the date of the first Placement Notice and (2) each time the Company:

(i) files the Prospectus relating to the Placement Shares or amends or supplements (other than a prospectus supplement relating solely to an offering of securities other than the Placement Shares) the Registration Statement or the Prospectus relating to the Placement Shares by means of a post-effective amendment, sticker, or supplement but not by means of incorporation of documents by reference into the Registration Statement or the Prospectus relating to the Placement Shares;

(ii) files an annual report on Form 10-K under the Exchange Act (including any Form 10-K/A containing amended financial information or a material amendment to the previously filed Form 10-K);

(iii) files its quarterly reports on Form 10-Q under the Exchange Act; or

(iv) files a current report on Form 8-K containing amended financial information (other than information “furnished” pursuant to Items 2.02 or 7.01 of Form 8-K or to provide disclosure pursuant to Item 8.01 of Form 8-K relating to the reclassification of certain properties as discontinued operations in accordance with Statement of Financial Accounting Standards No. 144) under the Exchange Act (each date of filing of one or more of the documents referred to in clauses (i) through (iv) shall be a “**Representation Date**”);

the Company shall furnish the Agent (but in the case of clause (iv) above only if the Agent reasonably determines that the information contained in such Form 8-K is material) with a certificate, in the form attached hereto as Exhibit 7(l). The requirement to provide a certificate under this Section 7(l) shall be waived for any Representation Date occurring at a time a Suspension is in effect, which waiver shall continue until the earlier to occur of the date the Company delivers instructions for the sale of Placement Shares hereunder (which for such calendar quarter shall be considered a Representation Date) and the next occurring Representation Date. Notwithstanding the foregoing, if the Company subsequently decides to sell Placement Shares following a Representation Date when the a Suspension was in effect and did not provide the Agent with a certificate under this Section 7(l), then before the Company delivers the instructions for the sale of Placement Shares or the Agent sells any Placement Shares pursuant to such instructions, the Company shall provide the Agent with a certificate in conformity with this Section 7(l) dated as of the date that the instructions for the sale of Placement Shares are issued.



(m) Legal Opinion. (1) Prior to the date of the first Placement Notice and (2) within five (5) Trading Days of each Representation Date with respect to which the Company is obligated to deliver a certificate in the form attached hereto as Exhibit 7(l) for which no waiver is applicable and excluding the date of this Agreement, the Company shall cause to be furnished to the Agent a written opinion of Thompson, Welch, Soroko & Gilbert LLP (“**Company Counsel**”), or other counsel satisfactory to the Agent, in form and substance satisfactory to Agent and its counsel, substantially similar to the form attached hereto as Exhibit 7(m), modified, as necessary, to relate to the Registration Statement and the Prospectus as then amended or supplemented; provided, however, the Company shall be required to furnish to Agent no more than one opinion hereunder per calendar quarter; provided, further, that in lieu of such opinions for subsequent periodic filings under the Exchange Act, counsel may furnish the Agent with a letter (a “**Reliance Letter**”) to the effect that the Agent may rely on a prior opinion delivered under this Section 7(m) to the same extent as if it were dated the date of such letter (except that statements in such prior opinion shall be deemed to relate to the Registration Statement and the Prospectus as amended or supplemented as of the date of the Reliance Letter).

(n) Comfort Letter. (1) Prior to the date of the first Placement Notice and (2) within five (5) Trading Days of each Representation Date with respect to which the Company is obligated to deliver a certificate in the form attached hereto as Exhibit 7(l) for which no waiver is applicable and excluding the date of this Agreement, the Company shall cause its independent registered public accounting firm to furnish the Agent letters (the “**Comfort Letters**”), dated the date the Comfort Letter is delivered, which shall meet the requirements set forth in this Section 7(n); provided, that if requested by the Agent, the Company shall cause a Comfort Letter to be furnished to the Agent within ten (10) Trading Days of the date of occurrence of any material transaction or event, including the restatement of the Company’s financial statements. The Comfort Letter from the Company’s independent registered public accounting firm shall be in a form and substance satisfactory to the Agent, (i) confirming that they are an independent registered public accounting firm within the meaning of the Securities Act and the PCAOB, (ii) stating, as of such date, the conclusions and findings of such firm with respect to the financial information and other matters ordinarily covered by accountants’ “comfort letters” to underwriters in connection with registered public offerings (the first such letter, the “**Initial Comfort Letter**”) and (iii) updating the Initial Comfort Letter with any information that would have been included in the Initial Comfort Letter had it been given on such date and modified as necessary to relate to the Registration Statement and the Prospectus, as amended and supplemented to the date of such letter.

(o) Market Activities. The Company will not, directly or indirectly, (i) take any action designed to cause or result in, or that constitutes or might reasonably be expected to constitute, the stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of Common Stock or (ii) sell, bid for, or purchase Common Stock, or pay anyone any compensation for soliciting purchases of the Placement Shares other than the Agent, except for sales of Company Common Stock held by Company Subsidiaries.

(p) Investment Company Act. The Company will conduct its affairs in such a manner so as to reasonably ensure that neither it nor any of its Subsidiaries will be or become, at any time prior to the termination of this Agreement, an “investment company,” as such term is defined in the Investment Company Act.

(q) No Offer to Sell. Other than an Issuer Free Writing Prospectus approved in advance by the Company and the Agent in its capacity as agent hereunder, neither the Agent nor the Company (including its agents and representatives, other than Agent in its capacity as such) will make, use, prepare, authorize, approve or refer to any written communication (as defined in Rule 405 under the Securities Act), required to be filed with the Commission, that constitutes an offer to sell or solicitation of an offer to buy Placement Shares hereunder.

(r) Blue Sky and Other Qualifications. The Company will use its commercially reasonable efforts, in cooperation with the Agent, to qualify the Placement Shares for offering and sale, or to obtain an exemption for the Placement Shares to be offered and sold, under the applicable securities laws of such states and other jurisdictions (domestic or foreign) as the Agent may designate and to maintain such qualifications and exemptions in effect for so long as required for the distribution of the Placement Shares (but in no event for less than one year from the date of this Agreement); *provided, however*, that the Company shall not be obligated to file any general consent to service of process or to qualify as a foreign corporation or as a dealer in securities in any jurisdiction in which it is not so qualified or to subject itself to taxation in respect of doing business in any jurisdiction in which it is not otherwise so subject. In each jurisdiction in which the Placement Shares have been so qualified or exempt, the Company will file such statements and reports as may be required by the laws of such jurisdiction to continue such qualification or exemption, as the case may be, in effect for so long as required for the distribution of the Placement Shares (but in no event for less than one year from the date of this Agreement).

(s) Sarbanes-Oxley Act. The Company and the Subsidiaries will maintain and keep accurate books and records reflecting their assets and maintain internal accounting controls in a manner designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles and including those policies and procedures that (i) pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of the assets of the Company, (ii) provide reasonable assurance that transactions are recorded as necessary to permit the preparation of the Company’s consolidated financial statements in accordance with generally accepted accounting principles, (iii) that receipts and expenditures of the Company are being made only in accordance with management’s and the Company’s directors’ authorization, and (iv) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the Company’s assets that could have a material effect on its financial statements. The Company and the Subsidiaries will maintain such controls and other procedures, including, without limitation, those required by Sections 302 and 906 of the Sarbanes-Oxley Act, and the applicable regulations thereunder that are designed to ensure that information required to be disclosed by the Company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the Commission’s rules and forms, including, without limitation, controls and procedures designed to ensure that information required to be disclosed by the Company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the Company’s management, including its principal executive officer and principal financial officer, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure and to ensure that material information relating to the Company or the Subsidiaries is made known to them by others within those entities, particularly during the period in which such periodic reports are being prepared.

(t) Secretary's Certificate; Further Documentation. Prior to the date of the first Placement Notice, the Company shall deliver to the Agent a certificate of the Secretary of the Company and attested to by an executive officer of the Company, dated as of such date, certifying as to (i) the Articles of Incorporation of the Company, (ii) the By-laws of the Company, (iii) the resolutions of the Board of Directors of the Company authorizing the execution, delivery and performance of this Agreement and the issuance of the Placement Shares and (iv) the incumbency of the officers duly authorized to execute this Agreement and the other documents contemplated by this Agreement. Within five (5) Trading Days of each Representation Date, the Company shall have furnished to the Agent such further information, certificates and documents as the Agent may reasonably request.

8. Payment of Expenses. The Company will pay all expenses incident to the performance of its obligations under this Agreement, including (i) the preparation and filing of the Registration Statement, including any fees required by the Commission, and the printing or electronic delivery of the Prospectus as originally filed and of each amendment and supplement thereto, in such number as the Agent shall deem necessary, (ii) the printing and delivery to the Agent of this Agreement and such other documents as may be required in connection with the offering, purchase, sale, issuance or delivery of the Placement Shares, (iii) the preparation, issuance and delivery of the certificates, if any, for the Placement Shares to the Agent, including any stock or other transfer taxes and any capital duties, stamp duties or other duties or taxes payable upon the sale, issuance or delivery of the Placement Shares to the Agent, (iv) the fees and disbursements of the counsel, accountants and other advisors to the Company, (v) the fees and disbursements of the counsel to the Agent, payable upon the execution of this Agreement, in an amount not to exceed \$50,000; (vi) the qualification or exemption of the Placement Shares under state securities laws in accordance with the provisions of Section 7(r) hereof, including filing fees, but excluding fees of the Agent's counsel, (vii) the printing and delivery to the Agent of copies of any Permitted Issuer Free Writing Prospectus and the Prospectus and any amendments or supplements thereto in such number as the Agent shall deem necessary, (viii) the preparation, printing and delivery to the Agent of copies of the blue sky survey, to the extent necessary, (ix) the fees and expenses of the transfer agent and registrar for the Common Stock, (x) the filing and other fees incident to any review by FINRA of the terms of the sale of the Placement Shares including the fees of the Agent's counsel (subject to the cap, set forth in clause (v) above), and (xi) the fees and expenses incurred in connection with the listing of the Placement Shares on the Exchange.

9. Conditions to Agent's Obligations. The obligations of the Agent hereunder with respect to a Placement will be subject to the continuing accuracy and completeness of the representations and warranties made by the Company herein, to the due performance by the Company of its obligations hereunder, to the completion by the Agent of a due diligence review satisfactory to it in its reasonable judgment, and to the continuing satisfaction (or waiver by the Agent in its sole discretion) of the following additional conditions:

(a) Registration Statement Effective. The Registration Statement shall have become effective and shall be available for the (i) resale of all Placement Shares issued to the Agent and not yet sold by the Agent and (ii) sale of all Placement Shares contemplated to be issued by any Placement Notice.

(b) No Material Notices. None of the following events shall have occurred and be continuing: (i) receipt by the Company of any request for additional information from the Commission or any other federal or state governmental authority during the period of effectiveness of the Registration Statement, the response to which would require any post-effective amendments or supplements to the Registration Statement or the Prospectus; (ii) the issuance by the Commission or any other federal or state governmental authority of any stop order suspending the effectiveness of the Registration Statement or the initiation of any proceedings for that purpose; (iii) receipt by the Company of any notification with respect to the suspension of the qualification or exemption from qualification of any of the Placement Shares for sale in any jurisdiction or the initiation or threatening of any proceeding for such purpose; or (iv) the occurrence of any event that makes any material statement made in the Registration Statement or the Prospectus or any material document incorporated or deemed to be incorporated therein by reference untrue in any material respect or that requires the making of any changes in the Registration Statement, the Prospectus or documents so that, in the case of the Registration Statement, it will not contain any materially untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein not misleading and, that in the case of the Prospectus, it will not contain any materially untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading.

(c) No Misstatement or Material Omission. Agent shall not have advised the Company that the Registration Statement or Prospectus, or any amendment or supplement thereto, contains an untrue statement of fact that in the Agent's reasonable opinion is material, or omits to state a fact that in the Agent's reasonable opinion is material and is required to be stated therein or is necessary to make the statements therein not misleading.

(d) Material Changes. Except as contemplated in the Prospectus, or disclosed in the Company's reports filed with the Commission, there shall not have been any Material Adverse Effect, or any development that could reasonably be expected to cause a Material Adverse Effect, or a downgrading in or withdrawal of the rating assigned to any of the Company's securities (other than asset backed securities) by any rating organization or a public announcement by any rating organization that it has under surveillance or review its rating of any of the Company's securities (other than asset backed securities), the effect of which, in the case of any such action by a rating organization described above, in the reasonable judgment of the Agent (without relieving the Company of any obligation or liability it may otherwise have), is so material as to make it impracticable or inadvisable to proceed with the offering of the Placement Shares on the terms and in the manner contemplated in the Prospectus.

(e) Legal Opinion. The Agent shall have received the opinions of Company Counsel required to be delivered pursuant to Section 7(m) on or before the date on which such delivery of such opinion is required pursuant to Section 7(m).

(f) Comfort Letter. The Agent shall have received the Comfort Letter required to be delivered pursuant to Section 7(n) on or before the date on which such delivery of such Comfort Letter is required pursuant to Section 7(n).

(g) Representation Certificate. The Agent shall have received the certificate required to be delivered pursuant to Section 7(l) on or before the date on which delivery of such certificate is required pursuant to Section 7(l).

(h) No Suspension. Trading in the Common Stock shall not have been suspended on the Exchange and the Common Stock shall not have been delisted from the Exchange.

(i) Other Materials. On each date on which the Company is required to deliver a certificate pursuant to Section 7(l), the Company shall have furnished to the Agent such appropriate further information, certificates and documents as the Agent may reasonably request. All such opinions, certificates, letters and other documents will be in compliance with the provisions hereof. The Company will furnish the Agent with such conformed copies of such opinions, certificates, letters and other documents as the Agent shall reasonably request.

(j) Securities Act Filings Made. All filings with the Commission required by Rule 424 under the Securities Act to have been filed prior to the issuance of any Placement Notice hereunder shall have been made within the applicable time period prescribed for such filing by Rule 424.

(k) Approval for Listing. The Placement Shares shall either have been approved for listing quotation on the Exchange, subject only to notice of issuance, or the Company shall have filed an application for listing quotation of the Placement Shares on the Exchange at, or prior to, the issuance of any Placement Notice.

(l) FINRA. FINRA shall have raised no objection to the terms of this offering and the amount of compensation allowable or payable to the Agent as described in the Prospectus.

(m) No Termination Event. There shall not have occurred any event that would permit the Agent to terminate this Agreement pursuant to Section 12(a).

10. Indemnification and Contribution.

(a) Company Indemnification. The Company agrees to indemnify and hold harmless the Agent, its partners, members, directors, officers, employees and agents and each person, if any, who controls the Agent within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act as follows:

(i) against any and all loss, liability, claim, damage and expense whatsoever, as incurred, joint or several, arising out of or based upon any untrue statement or alleged untrue statement of a material fact contained in the Registration Statement (or any amendment thereto), or the omission or alleged omission therefrom of a material fact required to be stated therein or necessary to make the statements therein not misleading, or arising out of any untrue statement or alleged untrue statement of a material fact included in any related Issuer Free Writing Prospectus or the Prospectus (or any amendment or supplement thereto), or the omission or alleged omission therefrom of a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading;

(ii) against any and all loss, liability, claim, damage and expense whatsoever, as incurred, joint or several, to the extent of the aggregate amount paid in settlement of any litigation, or any investigation or proceeding by any governmental agency or body, commenced or threatened, or of any claim whatsoever based upon any such untrue statement or omission, or any such alleged untrue statement or omission; provided that (subject to Section 10(d) below) any such settlement is effected with the written consent of the Company, which consent shall not unreasonably be delayed or withheld; and

(iii) against any and all expense whatsoever, as incurred (including the fees and disbursements of counsel), reasonably incurred in investigating, preparing or defending against any litigation, or any investigation or proceeding by any governmental agency or body, commenced or threatened, or any claim whatsoever based upon any such untrue statement or omission, or any such alleged untrue statement or omission, to the extent that any such expense is not paid under (i) or (ii) above,

provided, however, that this indemnity agreement shall not apply to any loss, liability, claim, damage or expense to the extent arising out of any untrue statement or omission or alleged untrue statement or omission made solely in reliance upon and in conformity with written information furnished to the Company by the Agent expressly for use in the Registration Statement (or any amendment thereto), or in any related Issuer Free Writing Prospectus or the Prospectus (or any amendment or supplement thereto).

(b) Agent Indemnification. Agent agrees to indemnify and hold harmless the Company and its directors and each officer of the Company who signed the Registration Statement, and each person, if any, who controls the Company within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act against any and all loss, liability, claim, damage and expense described in the indemnity contained in Section 10(a), as incurred, but only with respect to untrue statements or omissions, or alleged untrue statements or omissions, made in the Registration Statement (or any amendments thereto) or the Prospectus (or any amendment or supplement thereto) in reliance upon and in conformity with information relating to the Agent and furnished to the Company in writing by the Agent expressly for use therein. The Company hereby acknowledges that the only information that the Agent has furnished to the Company expressly for use in the Registration Statement, the Prospectus or any Issuer Free Writing Prospectus (or any amendment or supplement thereto) are the statements set forth in the third sentence of the fourth paragraph and the seventh and eighth paragraphs under the caption "Plan of Distribution" in the Prospectus.

(c) Procedure. Any party that proposes to assert the right to be indemnified under this Section 10 will, promptly after receipt of notice of commencement of any action against such party in respect of which a claim is to be made against an indemnifying party or parties under this Section 10, notify each such indemnifying party of the commencement of such action, enclosing a copy of all papers served, but the omission so to notify such indemnifying party will not relieve the indemnifying party from (i) any liability that it might have to any indemnified party otherwise than under this Section 10 and (ii) any liability that it may have to any indemnified party under the foregoing provision of this Section 10 unless, and only to the extent that, such omission results in the forfeiture of substantive rights or defenses by the indemnifying party. If any such action is brought against any indemnified party and it notifies the indemnifying party of its commencement, the indemnifying party will be entitled to participate in and, to the extent that it elects by delivering written notice to the indemnified party promptly after receiving notice of the commencement of the action from the indemnified party, jointly with any other indemnifying party similarly notified, to assume the defense of the action, with counsel reasonably satisfactory to the indemnified party, and after notice from the indemnifying party to the indemnified party of its election to assume the defense, the indemnifying party will not be liable to the indemnified party for any legal or other expenses except as provided below and except for the reasonable costs of investigation subsequently incurred by the indemnified party in connection with the defense. The indemnified party will have the right to employ its own counsel in any such action, but the fees, expenses and other charges of such counsel will be at the expense of such indemnified party unless (1) the employment of counsel by the indemnified party has been authorized in writing by the indemnifying party, (2) the indemnified party has reasonably concluded (based on advice of counsel) that there may be legal defenses available to it or other indemnified parties that are different from or in addition to those available to the indemnifying party, (3) a conflict or potential conflict exists (based on advice of counsel to the indemnified party) between the indemnified party and the indemnifying party (in which case the indemnifying party will not have the right to direct the defense of such action on behalf of the indemnified party) or (4) the indemnifying party has not in fact employed counsel to assume the defense of such action within a reasonable time after receiving notice of the commencement of the action, in each of which cases the reasonable fees, disbursements and other charges of counsel will be at the expense of the indemnifying party or parties. It is understood that the indemnifying party or parties shall not, in connection with any proceeding or related proceedings in the same jurisdiction, be liable for the reasonable fees, disbursements and other charges of more than one separate firm admitted to practice in such jurisdiction at any one time for all such indemnified party or parties. All such fees, disbursements and other charges will be reimbursed by the indemnifying party promptly as they are incurred. An indemnifying party will not, in any event, be liable for any settlement of any action or claim effected without its written consent. No indemnifying party shall, without the prior written consent of each indemnified party, settle or compromise or consent to the entry of any judgment in any pending or threatened claim, action or proceeding relating to the matters contemplated by this Section 10 (whether or not any indemnified party is a party thereto), unless such settlement, compromise or consent (1) includes an unconditional release of each indemnified party from all liability arising out of such litigation, investigation, proceeding or claim and (2) does not include a statement as to or an admission of fault, culpability or a failure to act by or on behalf of any indemnified party.

(d) Settlement Without Consent if Failure to Reimburse. If an indemnified party shall have requested an indemnifying party to reimburse the indemnified party for reasonable fees and expenses of counsel, such indemnifying party agrees that it shall be liable for any settlement of the nature contemplated by Section 10(a)(ii) effected without its written consent if (1) such settlement is entered into more than 45 days after receipt by such indemnifying party of the aforesaid request, (2) such indemnifying party shall have received notice of the terms of such settlement at least 30 days prior to such settlement being entered into and (3) such indemnifying party shall not have reimbursed such indemnified party in accordance with such request prior to the date of such settlement.

(e) Contribution. In order to provide for just and equitable contribution in circumstances in which the indemnification provided for in the foregoing paragraphs of this Section 10 is applicable in accordance with its terms but for any reason is held to be unavailable from the Company or the Agent, the Company and the Agent will contribute to the total losses, claims, liabilities, expenses and damages (including any investigative, legal and other expenses reasonably incurred in connection with, and any amount paid in settlement of, any action, suit or proceeding or any claim asserted, but after deducting any contribution received by the Company from persons other than the Agent, such as persons who control the Company within the meaning of the Securities Act, officers of the Company who signed the Registration Statement and directors of the Company, who also may be liable for contribution) to which the Company and the Agent may be subject in such proportion as shall be appropriate to reflect the relative benefits received by the Company on the one hand and the Agent on the other hand. The relative benefits received by the Company on the one hand and the Agent on the other hand shall be deemed to be in the same proportion as the total net proceeds from the sale of the Placement Shares (before deducting expenses) received by the Company bear to the total compensation received by the Agent (before deducting expenses) from the sale of Placement Shares on behalf of the Company. If, but only if, the allocation provided by the foregoing sentence is not permitted by applicable law, the allocation of contribution shall be made in such proportion as is appropriate to reflect not only the relative benefits referred to in the foregoing sentence but also the relative fault of the Company, on the one hand, and the Agent, on the other hand, with respect to the statements or omission that resulted in such loss, claim, liability, expense or damage, or action in respect thereof, as well as any other relevant equitable considerations with respect to such offering. Such relative fault shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or omission or alleged omission to state a material fact relates to information supplied by the Company or the Agent, the intent of the parties and their relative knowledge, access to information and opportunity to correct or prevent such statement or omission. The Company and the Agent agree that it would not be just and equitable if contributions pursuant to this Section 10(e) were to be determined by pro rata allocation or by any other method of allocation that does not take into account the equitable considerations referred to herein. The amount paid or payable by an indemnified party as a result of the loss, claim, liability, expense, or damage, or action in respect thereof, referred to above in this Section 10(e) shall be deemed to include, for the purpose of this Section 10(e), any legal or other expenses reasonably incurred by such indemnified party in connection with investigating or defending any such action or claim to the extent consistent with Section 10(c) hereof. Notwithstanding the foregoing provisions of this Section 10(e), the Agent shall not be required to contribute any amount in excess of the commissions received by it under this Agreement and no person found guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) will be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation. For purposes of this Section 10(e), any person who controls a party to this Agreement within the meaning of the Securities Act, and any officers, directors, partners, employees or agents of the Agent, will have the same rights to contribution as that party, and each officer of the Company who signed the Registration Statement will have the same rights to contribution as the Company, subject in each case to the provisions hereof. Any party entitled to contribution, promptly after receipt of notice of commencement of any action against such party in respect of which a claim for contribution may be made under this Section 10(e), will notify any such party or parties from whom contribution may be sought, but the omission to so notify will not relieve that party or parties from whom contribution may be sought from any other obligation it or they may have under this Section 10(e) except to the extent that the failure to so notify such other party materially prejudiced the substantive rights or defenses of the party from whom contribution is sought. Except for a settlement entered into pursuant to the last sentence of Section 10(c) hereof, no party will be liable for contribution with respect to any action or claim settled without its written consent if such consent is required pursuant to Section 10(c) hereof.



11. Representations and Agreements to Survive Delivery. The indemnity and contribution agreements contained in Section 10 of this Agreement and all representations and warranties of the Company herein or in certificates delivered pursuant hereto shall survive, as of their respective dates, regardless of (i) any investigation made by or on behalf of the Agent, any controlling persons, or the Company (or any of their respective officers, directors or controlling persons), (ii) delivery and acceptance of the Placement Shares and payment therefor or (iii) any termination of this Agreement.

12. Termination.

(a) The Agent may terminate this Agreement, by notice to the Company, as hereinafter specified at any time (1) if there has been, since the time of execution of this Agreement or since the date as of which information is given in the Prospectus, any change, or any development or event involving a prospective change, in the condition, financial or otherwise, or in the business, properties, earnings, results of operations or prospects of the Company and its Subsidiaries considered as one enterprise, whether or not arising in the ordinary course of business, which individually or in the aggregate, in the sole judgment of the Agent is material and adverse and makes it impractical or inadvisable to market the Placement Shares or to enforce contracts for the sale of the Placement Shares, (2) if there has occurred any material adverse change in the financial markets in the United States or the international financial markets, any outbreak of hostilities or escalation thereof or other calamity or crisis or any change or development involving a prospective change in national or international political, financial or economic conditions, in each case the effect of which is such as to make it, in the judgment of the Agent, impracticable or inadvisable to market the Placement Shares or to enforce contracts for the sale of the Placement Shares, (3) if trading in the Common Stock has been suspended or limited by the Commission or the Exchange, or if trading generally on the Exchange has been suspended or limited, or minimum prices for trading have been fixed on the Exchange, (4) if any suspension of trading of any securities of the Company on any exchange or in the over-the-counter market shall have occurred and be continuing, (5) if a major disruption of securities settlements or clearance services in the United States shall have occurred and be continuing, or (6) if a banking moratorium has been declared by either U.S. Federal or New York authorities. Any such termination shall be without liability of any party to any other party except that the provisions of Section 8 (Payment of Expenses), Section 10 (Indemnification and Contribution), Section 11 (Representations and Agreements to Survive Delivery), Section 17 (Governing Law and Time; Waiver of Jury Trial) and Section 18 (Consent to Jurisdiction) hereof shall remain in full force and effect notwithstanding such termination. If the Agent elects to terminate this Agreement as provided in this Section 12(a), the Agent shall provide the required notice as specified in Section 13 (Notices).

(b) The Company shall have the right, by giving ten (10) days notice as hereinafter specified to terminate this Agreement in its sole discretion at any time after the date of this Agreement. Any such termination shall be without liability of any party to any other party except that the provisions of Section 8, Section 10, Section 11, Section 17 and Section 18 hereof shall remain in full force and effect notwithstanding such termination.

(c) The Agent shall have the right, by giving ten (10) days notice as hereinafter specified to terminate this Agreement in its sole discretion at any time after the date of this Agreement. Any such termination shall be without liability of any party to any other party except that the provisions of Section 8, Section 10, Section 11, Section 17 and Section 18 hereof shall remain in full force and effect notwithstanding such termination.

(d) Unless earlier terminated pursuant to this Section 12, this Agreement shall automatically terminate upon the issuance and sale of all of the Placement Shares through the Agent on the terms and subject to the conditions set forth herein; provided that the provisions of Section 8, Section 10, Section 11, Section 17 and Section 18 hereof shall remain in full force and effect notwithstanding such termination.

(e) This Agreement shall remain in full force and effect unless terminated pursuant to Sections 12(a), (b), (c), or (d) above or otherwise by mutual agreement of the parties; provided, however, that any such termination by mutual agreement shall in all cases be deemed to provide that Section 8, Section 10, Section 11, Section 17 and Section 18 shall remain in full force and effect.

(f) Any termination of this Agreement shall be effective on the date specified in such notice of termination; provided, however, that such termination shall not be effective until the close of business on the date of receipt of such notice by the Agent or the Company, as the case may be. If such termination shall occur prior to the Settlement Date for any sale of Placement Shares, such Placement Shares shall settle in accordance with the provisions of this Agreement.

13. Notices. All notices or other communications required or permitted to be given by any party to any other party pursuant to the terms of this Agreement shall be in writing, unless otherwise specified, and if sent to the Agent, shall be delivered to:

Cantor Fitzgerald & Co.  
499 Park Avenue  
New York, NY 10022  
Attention: Capital Markets/Jeff Lumby  
Facsimile: (212) 307-3730

with copies to

Cantor Fitzgerald & Co.  
499 Park Avenue  
New York, NY 10022  
Attention: Stephen Merkel  
General Counsel  
Facsimile: (212) 307-3730

and with a copy to:

Reed Smith LLP  
599 Lexington Avenue  
New York, NY 10022  
Attention: Daniel I. Goldberg, Esq.  
Facsimile: (212) 521-5450

and if to the Company, shall be delivered to:

BioTime, Inc.  
1301 Harbor Bay Parkway, Suite 100  
Alameda, California 94502  
Attention: Peter S. Garcia, CFO  
Facsimile: (510) 521- 3389

with a copy to:

Thompson, Welch, Soroko & Gilbert LLP  
3950 Civic Center Drive, Suite 300  
San Rafael, California 94903  
Attention: Richard S. Soroko, Esq.  
Facsimile: (415) 448-5010

Each party to this Agreement may change such address for notices by sending to the parties to this Agreement written notice of a new address for such purpose. Each such notice or other communication shall be deemed given (i) when delivered personally or by verifiable facsimile transmission (with an original to follow) on or before 4:30 p.m., New York City time, on a Business Day or, if such day is not a Business Day, on the next succeeding Business Day, (ii) on the next Business Day after timely delivery to a nationally-recognized next Business Day courier and (iii) on the Business Day actually received if deposited in the U.S. mail (certified or registered mail, return receipt requested, postage prepaid). For purposes of this Agreement, "**Business Day**" shall mean any day on which the Exchange and commercial banks in the City of New York are open for business.

An electronic communication ("**Electronic Notice**") shall be deemed written notice for purposes of this Section 13 if sent to the electronic mail address specified by the receiving party under separate cover. Electronic Notice shall be deemed received at the time the party sending Electronic Notice receives verification of receipt by the receiving party. Any party receiving Electronic Notice may request and shall be entitled to receive the notice on paper, in a nonelectronic form ("**Nonelectronic Notice**") which shall be sent to the requesting party within ten (10) days of receipt of the written request for Nonelectronic Notice.

14. Successors and Assigns. This Agreement shall inure to the benefit of and be binding upon the Company and the Agent and their respective successors and the affiliates, controlling persons, officers and directors referred to in Section 10 hereof. References to any of the parties contained in this Agreement shall be deemed to include the successors and permitted assigns of such party. Nothing in this Agreement, express or implied, is intended to confer upon any party other than the parties hereto or their respective successors and permitted assigns any rights, remedies, obligations or liabilities under or by reason of this Agreement, except as expressly provided in this Agreement. Neither party may assign its rights or obligations under this Agreement without the prior written consent of the other party; provided, however, that the Agent may assign its rights and obligations hereunder to an affiliate thereof without obtaining the Company's consent.

15. Adjustments for Stock Splits. The parties acknowledge and agree that all share-related numbers contained in this Agreement shall be adjusted to take into account any stock split, stock dividend or similar event effected with respect to the Placement Shares.

16. Entire Agreement; Amendment; Severability. This Agreement (including all schedules and exhibits attached hereto and Placement Notices issued pursuant hereto) constitutes the entire agreement and supersedes all other prior and contemporaneous agreements and undertakings, both written and oral, among the parties hereto with regard to the subject matter hereof. Neither this Agreement nor any term hereof may be amended except pursuant to a written instrument executed by the Company and the Agent. In the event that any one or more of the provisions contained herein, or the application thereof in any circumstance, is held invalid, illegal or unenforceable as written by a court of competent jurisdiction, then such provision shall be given full force and effect to the fullest possible extent that it is valid, legal and enforceable, and the remainder of the terms and provisions herein shall be construed as if such invalid, illegal or unenforceable term or provision was not contained herein, but only to the extent that giving effect to such provision and the remainder of the terms and provisions hereof shall be in accordance with the intent of the parties as reflected in this Agreement.

17. **GOVERNING LAW AND TIME; WAIVER OF JURY TRIAL. THIS AGREEMENT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW YORK WITHOUT REGARD TO THE PRINCIPLES OF CONFLICTS OF LAWS. SPECIFIED TIMES OF DAY REFER TO NEW YORK CITY TIME. THE COMPANY HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY LEGAL PROCEEDING ARISING OUT OF OR RELATING TO THIS AGREEMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY.**

18. **CONSENT TO JURISDICTION.** EACH PARTY HEREBY IRREVOCABLY SUBMITS TO THE NON-EXCLUSIVE JURISDICTION OF THE STATE AND FEDERAL COURTS SITTING IN THE CITY OF NEW YORK, BOROUGH OF MANHATTAN, FOR THE ADJUDICATION OF ANY DISPUTE HEREUNDER OR IN CONNECTION WITH ANY TRANSACTION CONTEMPLATED HEREBY, AND HEREBY IRREVOCABLY WAIVES, AND AGREES NOT TO ASSERT IN ANY SUIT, ACTION OR PROCEEDING, ANY CLAIM THAT IT IS NOT PERSONALLY SUBJECT TO THE JURISDICTION OF ANY SUCH COURT, THAT SUCH SUIT, ACTION OR PROCEEDING IS BROUGHT IN AN INCONVENIENT FORUM OR THAT THE VENUE OF SUCH SUIT, ACTION OR PROCEEDING IS IMPROPER. EACH PARTY HEREBY IRREVOCABLY WAIVES PERSONAL SERVICE OF PROCESS AND CONSENTS TO PROCESS BEING SERVED IN ANY SUCH SUIT, ACTION OR PROCEEDING BY MAILING A COPY THEREOF (CERTIFIED OR REGISTERED MAIL, RETURN RECEIPT REQUESTED) TO SUCH PARTY AT THE ADDRESS IN EFFECT FOR NOTICES TO IT UNDER THIS AGREEMENT AND AGREES THAT SUCH SERVICE SHALL CONSTITUTE GOOD AND SUFFICIENT SERVICE OF PROCESS AND NOTICE THEREOF. NOTHING CONTAINED HEREIN SHALL BE DEEMED TO LIMIT IN ANY WAY ANY RIGHT TO SERVE PROCESS IN ANY MANNER PERMITTED BY LAW.

19. **Use of Information.** The Agent may not provide any information gained in connection with this Agreement and the transactions contemplated by this Agreement, including due diligence, to any third party other than its legal counsel advising it on this Agreement unless expressly approved by the Company in writing.

20. **Counterparts.** This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Delivery of an executed Agreement by one party to the other may be made by facsimile transmission.

21. **Effect of Headings.**

The section and exhibit headings herein are for convenience only and shall not affect the construction hereof.

22. Permitted Free Writing Prospectuses.

The Company represents, warrants and agrees that, unless it obtains the prior consent of the Agent, and the Agent represents, warrants and agrees that, unless it obtains the prior consent of the Company, it has not made and will not make any offer relating to the Placement Shares that would constitute an Issuer Free Writing Prospectus, or that would otherwise constitute a “free writing prospectus,” as defined in Rule 405, required to be filed with the Commission. Any such free writing prospectus consented to by the Agent or by the Company, as the case may be, is hereinafter referred to as a “Permitted Free Writing Prospectus.” The Company represents and warrants that it has treated and agrees that it will treat each Permitted Free Writing Prospectus as an “issuer free writing prospectus,” as defined in Rule 433, and has complied and will comply with the requirements of Rule 433 applicable to any Permitted Free Writing Prospectus, including timely filing with the Commission where required, legending and record keeping. For the purposes of clarity, the parties hereto agree that all free writing prospectuses, if any, listed in Exhibit 22 hereto are Permitted Free Writing Prospectuses.

23. Absence of Fiduciary Relationship.

The Company acknowledges and agrees that:

(a) the Agent is acting solely as agent in connection with the public offering of the Placement Shares and in connection with each transaction contemplated by this Agreement and the process leading to such transactions, and no fiduciary or advisory relationship between the Company or any of its respective affiliates, stockholders (or other equity holders), creditors or employees or any other party, on the one hand, and the Agent, on the other hand, has been or will be created in respect of any of the transactions contemplated by this Agreement, irrespective of whether or not the Agent has advised or is advising the Company on other matters, and the Agent has no obligation to the Company with respect to the transactions contemplated by this Agreement except the obligations expressly set forth in this Agreement;

(b) it is capable of evaluating and understanding, and understands and accepts, the terms, risks and conditions of the transactions contemplated by this Agreement;

(c) the Agent has not provided any legal, accounting, regulatory or tax advice with respect to the transactions contemplated by this Agreement and it has consulted its own legal, accounting, regulatory and tax advisors to the extent it has deemed appropriate;

(d) it is aware that the Agent and its affiliates are engaged in a broad range of transactions which may involve interests that differ from those of the Company and the Agent has no obligation to disclose such interests and transactions to the Company by virtue of any fiduciary, advisory or agency relationship or otherwise; and

(e) it waives, to the fullest extent permitted by law, any claims it may have against the Agent for breach of fiduciary duty or alleged breach of fiduciary duty in connection with the sale of Placement Shares under this Agreement and agrees that the Agent shall not have any liability (whether direct or indirect, in contract, tort or otherwise) to it in respect of such a fiduciary duty claim or to any person asserting a fiduciary duty claim on its behalf or in right of it or the Company, employees or creditors of Company, other than in respect of the Agent’s obligations under this Agreement and to keep information provided by the Company to the Agent and the Agent’s counsel confidential to the extent not otherwise publicly-available.

24. Definitions.

As used in this Agreement, the following terms have the respective meanings set forth below:

**“Applicable Time”** means (i) each Representation Date and (ii) the time of each sale of any Placement Shares pursuant to this Agreement.

**“Issuer Free Writing Prospectus”** means any “issuer free writing prospectus,” as defined in Rule 433, relating to the Placement Shares that (1) is required to be filed with the Commission by the Company, (2) is a “road show” that is a “written communication” within the meaning of Rule 433(d)(8)(i) whether or not required to be filed with the Commission, or (3) is exempt from filing pursuant to Rule 433(d)(5)(i) because it contains a description of the Placement Shares or of the offering that does not reflect the final terms, in each case in the form filed or required to be filed with the Commission or, if not required to be filed, in the form retained in the Company’s records pursuant to Rule 433(g) under the Securities Act Regulations.

**“Rule 164,” “Rule 172,” “Rule 405,” “Rule 415,” “Rule 424,” “Rule 424(b),” “Rule 430B,”** and **“Rule 433”** refer to such rules under the Securities Act Regulations.

All references in this Agreement to financial statements and schedules and other information that is “contained,” “included” or “stated” in the Registration Statement or the Prospectus (and all other references of like import) shall be deemed to mean and include all such financial statements and schedules and other information that is incorporated by reference in the Registration Statement or the Prospectus, as the case may be.

All references in this Agreement to the Registration Statement, the Prospectus or any amendment or supplement to any of the foregoing shall be deemed to include the copy filed with the Commission pursuant to EDGAR; all references in this Agreement to any Issuer Free Writing Prospectus (other than any Issuer Free Writing Prospectuses that, pursuant to Rule 433, are not required to be filed with the Commission) shall be deemed to include the copy thereof filed with the Commission pursuant to EDGAR; and all references in this Agreement to “supplements” to the Prospectus shall include, without limitation, any supplements, “wrappers” or similar materials prepared in connection with any offering, sale or private placement of any Placement Shares by the Agent outside of the United States.

If the foregoing correctly sets forth the understanding between the Company and the Agent, please so indicate in the space provided below for that purpose, whereupon this letter shall constitute a binding agreement between the Company and the Agent.

Very truly yours,

BIOTIME, INC.

By: s/ Peter S. Garcia  
Name: Peter S. Garcia  
Title: Chief Financial Officer

ACCEPTED as of the date first-above written:

CANTOR FITZGERALD & CO.

By: s/ Jeffrey Lumby  
Name: Jeffrey Lumby  
Title: Senior Managing Director

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SCHEDULE 1

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FORM OF PLACEMENT NOTICE

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From: BioTime, Inc.

To: Cantor Fitzgerald & Co.  
Attention: \_\_\_\_\_

Subject: Placement Notice

Gentlemen:

Pursuant to the terms and subject to the conditions contained in the Sales Agreement between BioTime, Inc., a California corporation (the "**Company**") and Cantor Fitzgerald & Co. ("**Agent**"), dated August 24, 2012, the Company hereby requests that the Agent sell up to \_\_\_\_\_ of the Company's Common Stock, no par value per share, at a minimum market price of \$\_\_\_\_\_ per share, during the time period beginning [month, day, time] and ending [month, day, time].

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## SCHEDULE 2

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### Compensation

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The Company shall pay to the Agent in cash, upon each sale of Placement Shares pursuant to this Agreement, an amount equal to 3% of the aggregate gross proceeds from each sale of Placement Shares.

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### SCHEDULE 3

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#### Notice Parties

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##### The Company

Michael D. West (mwest@biotimemail.com)

Robert W. Peabody (rpeabody@biotimemail.com)

Peter S. Garcia (pgarcia@biotimemail.com)

##### The Agent

Jeff Lumby (jlumby@cantor.com)

Josh Feldman (jfeldman@cantor.com)

Peter Dippolito (pdippolito@cantor.com)

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**SCHEDULE 4**

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**Subsidiaries**

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Subsidiary	Jurisdiction of Incorporation or Organization
ReCyte Therapeutics, Inc.	California
OncoCyte Corporation	California
OrthoCyte Corporation	California
LifeMap Sciences, Inc.	California
ES Cell International Pte Ltd.	Singapore
BioTime Asia, Limited	Hong Kong
Cell Cure Neurosciences, Ltd.	Israel
LifeMap Sciences Ltd.	Israel

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**EXHIBIT 7(l)**

**Form of Representation Date Certificate**

The undersigned, the duly qualified and elected \_\_\_\_\_, of BioTime, Inc., a California corporation (the "Company"), does hereby certify in such capacity and on behalf of the Company, pursuant to Section 7(l) of the Sales Agreement, dated August 24, 2012 (the "Sales Agreement"), between the Company and Cantor Fitzgerald & Co., that to the best of the knowledge of the undersigned:

(i) The representations and warranties of the Company in Section 6 of the Sales Agreement (A) to the extent such representations and warranties are subject to qualifications and exceptions contained therein relating to materiality or Material Adverse Effect, are true and correct on and as of the date hereof, except for those representations and warranties that speak solely as of a specific date and which were true and correct as of such date, with the same force and effect as if expressly made on and as of the date hereof and (B) to the extent such representations and warranties are not subject to any qualifications or exceptions, are true and correct in all material respects as of the date hereof as if made on and as of the date hereof except for those representations and warranties that speak solely as of a specific date and which were true and correct as of such date, with the same force and effect as if expressly made on and as of the date hereof; and

(ii) The Company has complied with all agreements and satisfied all conditions on its part to be performed or satisfied pursuant to the Sales Agreement at or prior to the date hereof.

BIOTIME, INC.

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

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**EXHIBIT 7(m)**

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Exhibit 22

**Permitted Free Writing Prospectus**

None.

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LAW OFFICES  
**THOMPSON, WELCH, SOROKO & GILBERT LLP**  
3950 CIVIC CENTER DRIVE  
SUITE 300  
SAN RAFAEL, CA 94903  
(415) 448-5000

FACSIMILE  
(415) 448-5010  
SAN FRANCISCO OFFICE  
(415) 262-1200

August 24, 2012

Securities and Exchange Commission  
100 F Street, NE  
Washington, D.C. 20549

Re: BioTime, Inc.  
Registration Statement on Form S-3

Ladies/Gentlemen:

We are counsel to BioTime, Inc. ("BioTime"), a California corporation, in connection with the registration statement on Form S-3, to be filed by BioTime with the Securities and Exchange Commission (the "Commission") on the date hereof (the "Registration Statement") pursuant to the Securities Act of 1933, as amended (the "Securities Act"), to register for sale under the Securities Act up to \$75,000,000 of one or more of the following securities (collectively, the "Offered Securities") which may be issued by BioTime, from time to time, under the Registration Statement: (i) common shares, no par value (the "Common Shares"), which may include Common Shares issuable upon the conversion or exercise of the other Offered Securities included in the Registration Statement, (ii) preferred shares of BioTime, no par value (the "Preferred Shares"), which may include Preferred Shares issuable upon the conversion or exercise of other Offered Securities included in the Registration Statement, (iii) debt securities (the "Debt Securities"), the terms of which will be determined by the Board of Directors of BioTime prior to issuance, (iv) warrants (the "Warrants") to purchase Common Shares, Preferred Shares, or Debt Securities, (v) rights ("Rights") to purchase Common Shares, Preferred Shares, Warrants, and/or Debt Securities, and (vi) unit ("Units") comprised of any combination of the foregoing Offered Securities.

We also have acted as counsel to BioTime in connection with an offering of Common Shares included in the Registration Statement having an aggregate offering price of up to \$25,000,000 that may be issued and sold (the "Sales Agreement Shares") under a Sales Agreement, dated August 24, 2012, between BioTime and Cantor Fitzgerald & Co. (the "Sales Agreement"). The preliminary prospectus supplement for the offer and sale of the Sales Agreement Shares is included in the Registration Statement (as may be amended or supplemented, the "Sales Agreement Prospectus Supplement").

In connection with the foregoing, we have relied upon, among other things, our examination of such documents, records of BioTime and certificates of its officers and public officials as we deemed necessary for purposes of the opinions expressed below. In our examination, we have assumed the genuineness of all signatures, the authenticity of all documents submitted to us as originals and the conformity with the original of all documents submitted to us as copies thereof.

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Based upon the foregoing, we are of the opinion that:

1. With respect to any offering of Common Shares by BioTime pursuant to the Registration Statement other than pursuant to the Sales Agreement (the "Offered Common Shares"), when: (a) the Registration Statement has become effective under the Securities Act; (b) the board of directors of BioTime or any duly designated committee thereof ("Board of Directors") has adopted resolutions approving the issuance and sale of the Offered Common Shares at a specified price or pursuant to a specified pricing mechanism; (c) an underwriting agreement or placement agency agreement with respect to the Offered Common Shares has been duly authorized, executed and delivered by BioTime and the other parties thereto, if the Offered Common Shares are to be sold in a firm commitment underwritten offering or in a best efforts placement offering; (d) certificates representing the Offered Common Shares have been duly executed by appropriate officers of BioTime or appropriate book entries have been made in the share records of BioTime, and (e) the Offered Common Shares have been duly and properly sold, paid for and delivered as contemplated in the Registration Statement, any prospectus supplement relating thereto and, if applicable, in accordance with the applicable underwriting or other purchase agreement, the Offered Common Shares will be duly authorized, validly issued, fully paid and non-assessable.

2. With respect to any offering of Preferred Shares by BioTime pursuant to the Registration Statement (the "Offered Preferred Shares"), when: (a) the Registration Statement has become effective under the Securities Act; (b) the Board of Directors has adopted resolutions designating the series of Preferred Shares to be issued, if the Preferred Shares are to be issued in one or more series, and the rights, preferences, privileges and restrictions on such Preferred Shares or series, and approving the issuance and sale of the Offered Preferred Shares at a specified price or pursuant to a specified pricing mechanism; (c) a certificate of determination with respect to the Offered Preferred Shares has been filed with the Secretary of State of California; (d) an underwriting agreement or placement agency agreement with respect to the Offered Preferred Shares has been duly authorized, executed and delivered by BioTime and the other parties thereto, if the Offered Preferred Shares are to be sold in a firm commitment underwritten offering or in a best efforts placement offering; (e) certificates representing the Offered Preferred Shares have been duly executed by appropriate officers of BioTime or appropriate book entries have been made in the share records of BioTime; and (f) the Offered Preferred Shares have been duly and properly sold, paid for and delivered as contemplated in the Registration Statement, any prospectus supplement relating thereto and, if applicable, in accordance with the applicable underwriting or other purchase agreement, the Offered Preferred Shares will be duly authorized, validly issued, fully paid and non-assessable.

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3. With respect to any series of the Debt Securities offered under the Registration Statement (“Offered Debt Securities”), when: (a) the Registration Statement has become effective under the Securities Act; (b) an indenture pertaining to the Offered Debt Securities has been duly authorized by the Board of Directors and executed by BioTime and the applicable trustee; (c) the issuance and terms of the Offered Debt Securities have been duly authorized by the Board of Directors; (d) an underwriting agreement or placement agency agreement with respect to the Offered Debt Securities has been duly authorized, executed and delivered by BioTime and the other parties thereto, if the Offered Debt Securities are to be sold in a firm commitment underwritten offering or in a best efforts placement offering; and (e) the Offered Debt Securities have been duly executed and delivered by BioTime and authenticated by the applicable trustee pursuant to the indenture and delivered against payment therefor, then the Offered Debt Securities, when issued and sold in accordance with the indenture and a duly authorized, executed and delivered purchase, underwriting or similar agreement, or upon the exercise of any Warrants or Rights in accordance with the terms thereof, will be valid and legally binding obligations of BioTime, enforceable against BioTime in accordance with their terms, except as enforcement thereof may be limited by applicable bankruptcy, insolvency, reorganization, arrangement, moratorium or other similar laws affecting creditors’ rights, and subject to general equity principles and to limitations on availability of equitable relief, including specific performance.

4. With respect to any offering of Warrants by BioTime pursuant to the Registration Statement (the “Offered Warrants”), when: (a) the Registration Statement has become effective under the Securities Act; (b) the Board of Directors has adopted resolutions approving the form, terms, issuance and sale of the Offered Warrants at a specified price or pursuant to a specified pricing mechanism; (c) any agreement between BioTime and any agent appointed by BioTime as Warrant Agent, or between BioTime and any purchaser of the Offered Warrants, pertaining to the terms of the Offered Warrants (“Warrant Agreement”) has been duly executed by BioTime and the Warrant Agent or purchaser; (d) an underwriting agreement or placement agency agreement with respect to the Offered Warrants has been duly authorized, executed and delivered by BioTime and the other parties thereto, if the Offered Warrants are to be sold in a firm commitment underwritten offering or in a best efforts placement offering; (e) the Offered Securities that are issuable upon the exercise of the Offered Warrants have been duly and properly authorized by the Board of Directors; and (f) when the Offered Warrants have been duly and properly sold, paid for and delivered as contemplated in the Registration Statement, any prospectus supplement relating thereto and, if applicable, in accordance with the applicable underwriting or other purchase agreement, and otherwise in accordance with the provisions of any applicable Warrant Agreement, the Offered Warrants will constitute valid and binding obligations of BioTime, enforceable against BioTime in accordance with their terms.

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5. With respect to any offering of Rights by BioTime pursuant to the Registration Statement (the "Offered Rights"), when: (a) the Registration Statement has become effective under the Securities Act; (b) the Board of Directors has authorized and approved the form, issuance, execution and terms of the Offered Rights; (c) any related (i) agreement between BioTime and any agent appointed by BioTime as Rights Agent, or between BioTime and any purchaser of the Offered Rights, pertaining to the terms of the Offered Rights ("Rights Agreement"), (ii) indenture in the case Debt Securities are issuable upon exercise of the Offered Rights, and (iii) Warrant Agreement in the case Warrants are issuable upon exercise of the Offered Rights, has been duly authorized by the Board of Directors and executed by BioTime and the other parties thereto; (d) the Board of Directors has duly authorized any Offered Securities that are issuable upon the exercise of the Offered Rights, and the terms of the offering thereof and related matters, (e) an underwriting agreement or placement agency agreement with respect to the Offered Rights has been duly authorized, executed and delivered by BioTime and the other parties thereto, if the Offered Rights are to be sold in a firm commitment underwritten offering or in a best efforts placement offering; and (f) the Offered Rights have been duly and properly sold, paid for and delivered as contemplated in the Registration Statement, any prospectus supplement relating thereto and, if applicable, in accordance with the applicable underwriting or other purchase agreement, and otherwise in accordance with the provisions of any applicable Rights Agreement, the Offered Rights will be validly issued and will entitle the holder thereof to the rights specified in the Rights certificates and any Rights Agreement.

6. With respect to any offering of Units by BioTime pursuant to the Registration Statement (the "Offered Units"), when: (a) the Registration Statement has become effective under the Securities Act; (b) Board of Directors has authorized and approved the form, issuance, execution and terms of the Offered Units; (c) any related (i) agreement between BioTime and any agent appointed by BioTime as Unit Agent, or between BioTime and any purchaser of the Units, pertaining to the terms of the Offered Units ("Unit Agreement"), (ii) indenture in the case of Debt Securities included in the Offered Units, and (iii) Warrant Agreement in the case of Warrants included in the Offered Units, has been duly authorized by the Board of Directors and executed by BioTime and the other parties thereto; (d) the Board of Directors has duly authorized any Offered Securities which are components of such Offered Units; (e) an underwriting agreement or placement agency agreement with respect to the Offered Units has been duly authorized, executed and delivered by BioTime and the other parties thereto, if the Offered Units are to be sold in a firm commitment underwritten offering or in a best efforts placement offering; and (f) the Offered Units, including all Offered Securities that are components of the Units, have been duly and properly sold, paid for and delivered as contemplated in the Registration Statement, any prospectus supplement relating thereto and, if applicable, in accordance with the applicable underwriting or other purchase agreement, and otherwise in accordance with the provisions of any applicable Unit Agreement, such Units will be validly issued and will entitle the holder thereof to the rights specified in the Unit Agreements, if any.

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7. With respect to the Sales Agreement Shares, when: (a) the Registration Statement has become effective under the Securities Act; and (b) the Sales Agreement Shares have been duly and properly sold, paid for and delivered as contemplated in the Registration Statement and the Sales Agreement Prospectus Supplement, the Sales Agreement Shares will be duly authorized, validly issued, fully paid, and non-assessable.

To the extent that the foregoing opinions apply to Common Shares or Preferred Shares (whether as Offered Common Shares, Offered Preferred Shares, Sales Agreement Shares, or Offered Securities included in any Unit or issuable upon the exercise of any Warrant or Right, or issuable upon the conversion of any Preferred Shares or Debt Securities), such opinions are qualified by and limited to: (a) in the case of Common Shares, the number of Common Shares that at the time of issuance and sale are authorized by BioTime's articles of incorporation and not previously issued or reserved by BioTime for issuance in any other sale or transaction, and (b) in the case of Preferred Shares, the number of Preferred Shares and the number of Preferred Shares of the series of which the Offered Preferred Shares are a part that at the time of issuance and sale are authorized by BioTime's articles of incorporation, including any certificate of determination for the series of which the Offered Preferred Shares are a part, and not previously issued or reserved by BioTime for issuance in any other sale or transaction.

The foregoing opinion is limited to the laws of the State of California and the Federal laws of the United States of America.

We hereby consent to the filing of our opinion as an exhibit to the Registration Statement and reference to our firm under the heading "Legal Matters" in the Prospectus included therein.

Very truly yours,

s/Thompson, Welch, Soroko & Gilbert LLP

Thompson, Welch, Soroko & Gilbert LLP

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CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statement on Form S-3 and related Prospectus both dated August 24, 2012 of BioTime, Inc. of our report dated March 14, 2012, with respect to the audit of the consolidated balance sheets of BioTime, Inc. and Subsidiaries (collectively the "Company") as of December 31, 2011 and 2010, and the related consolidated statements of operations, changes in equity, and cash flows for each of the years in the three-year period ended December 31, 2011, which report appears in the Annual Report on Form 10-K of the Company for the year ended December 31, 2011, and to the reference to our firm under the caption "Experts" in the Registration Statement and related Prospectus.

/s/ Rothstein Kass

New York, New York  
August 24, 2012

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