

**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)*

**94-3127919**

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

**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)*

**Robert W. Peabody**  
**Senior Vice President and 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:**

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**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**

<b>Title of Each Class of Securities to be Registered</b>	<b>Proposed Maximum Aggregate Offering Price(1)(2)</b>	<b>Amount of Registration Fee(3)</b>
Common Shares (no par value)		
Preferred Shares (no par value)		
Debt Securities		
Warrants		
Units		
Rights		
<b>TOTALS:</b>	\$100,000,000	\$11,620

(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 \$100,000,000. 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 \$100,000,000. 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 FEBRUARY 2, 2015

# BIOTIME, INC.

**\$100,000,000**  
**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 \$100,000,000. 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 January 29, 2015, the last sale price of our common shares as reported on the NYSE MKT was \$4.20 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 \_\_\_\_\_, 2015

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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 \$100,000,000. 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, for use in a variety of fields of medicine. Four of our subsidiaries, Asterias Biotherapeutics, Inc. (“Asterias”), Cell Cure Neurosciences, Ltd (“Cell Cure Neurosciences”), OrthoCyte Corporation (“OrthoCyte”), and ReCyte Therapeutics, Inc. (“ReCyte”) are focused on developing cell based therapeutic products for diseases such as neurological disorders, cancer, age related macular degeneration, orthopedic disorders, and age-related cardiovascular disease. Our commercial strategy targets near-term opportunities such as: *Renovia*<sup>TM</sup> a product currently in clinical trials in Europe to facilitate cell transplantation; *ReGlyde*<sup>TM</sup> and *Premvia*<sup>TM</sup> for tendon and wound-management applications, respectively; *PanC-Dx*<sup>TM</sup>, a family of novel blood and urine-based cancer screens; our current line of research products including *PureStem*<sup>®</sup> human embryonic progenitor cell lines (“hEPCs”), associated *ESpan*<sup>TM</sup> culture media, human embryonic stem cell lines derived by our subsidiary ES Cell International Pte Ltd (“ESI”) under current good manufacturing practices (“cGMP”); *HyStem*<sup>®</sup> hydrogel products; the LifeMap Database Suite and mobile health software products.

“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 similar to 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.

The field of regenerative medicine includes a broad range of disciplines, including tissue banking, cellular therapy, gene therapy, and tissue engineering. 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 have also 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*<sup>®</sup> used in surgical procedures. *Hextend*<sup>®</sup> is manufactured and distributed in the United States by Hospira, Inc., and in South Korea by CJ Health Corporation (“CJ Health”), a subsidiary of Cheil Jedang Corp., under license from us.

The following table summarizes the status of our primary research and development programs in stem cell research and regenerative medicine.

Company	Program	Status
Asterias	hES-based cell therapeutic programs	<p>AST-OPC-1 Glial Cells--Phase I/IIa dose escalation trial underway in cervical spinal cord injury.</p> <p>\$14.3 million grant obtained from California Institute of Regenerative Medicine to provide matching funds for AST-OPC1 clinical trial and process development.</p> <p>AST-VAC2 Allogeneic Dendritic Cells Loaded with Telomerase antigen—Proof of concept established in multiple <i>in vitro</i> systems.</p> <p>Agreement by Cancer Research UK to conduct Phase I/IIa clinical trial of AST-VAC2 in subjects with non-small cell lung cancer. Manufacturing process being developed for transfer to Cancer Research UK for clinical trials.</p>
BioTime <sup>(1)</sup> and ESI	<p>ESI BIO BioTime's new research products operations and marketing program.</p> <p>Existing product consolidation: ESI cGMP cell lines; the <i>HyStem</i><sup>®</sup> hydrogels; and the <i>PureStem</i><sup>®</sup> cell lines/growth media/reagent kits for stem cell research</p> <p>New product development and new infrastructure development.</p>	<p>BioTime is consolidating its existing portfolio of stem cell research products (including various brands) and its research products operations under one brand and operating division, ESI BIO.</p> <p>Existing product sub-brands being consolidated under ESI BIO including: ESI's cGMP, NIH-approved, hES cell lines; cGMP <i>HyStem</i><sup>®</sup> hydrogel cell culture matrix products (formally provided under the Glycosan brand); <i>PureStem</i><sup>®</sup> brand of human progenitor cells; and cell growth media, and reagent cell differentiation kits.</p> <p>Developing, manufacturing and marketing stem cell research products utilizing the latest technologies in cellular reprogramming that are well-matched and complementary to ESI BIO's current product portfolio.</p>
BioTime	<p>Biocompatible hydrogels that mimic the human extracellular matrix</p> <p><i>Hextend</i><sup>®</sup> – Blood plasma volume expanders</p>	<p>Published a set of scientific reviews featuring pre-clinical data produced by prominent scientists studying the potential clinical use of our <i>HyStem</i><sup>®</sup> hydrogel extracellular matrix products in combination with progenitor cells to treat stroke, cancer, vocal fold damage, cardiovascular disease and kidney disease. The review articles were published in the international, online, open access, peer-reviewed journal <i>Biomatter</i> (Biomatter 3:1, January/February/March 2013).</p> <p>Completed first human clinical safety trial for <i>Renevia</i><sup>™</sup> (the trade name for <i>HyStem</i><sup>®</sup> used in lipotransfer). Results confirmed that <i>Renevia</i><sup>™</sup> was safe in humans at the proposed dosage concentration for this particular use.</p> <p>Received approval to begin a pivotal trial for <i>Renevia</i><sup>™</sup> in Europe to show effectiveness of <i>Renevia</i><sup>™</sup> in lipotransfer for patients suffering from HIV related lipoatrophy of the face.</p> <p><i>Hextend</i><sup>®</sup> is currently marketed to hospitals and physicians in the U.S. and Korea.</p>
OncoCyte	<i>PanC-Dx</i> <sup>™</sup> Diagnostic Tests	<p>Clinical trials to validate proprietary <i>PanC-Dx</i><sup>™</sup> tests for bladder, breast and lung cancer. Expected completion in 2015. Initial results met the criteria required to proceed to final stages of the validation steps.</p> <p>Sponsored Research and Material Transfer Agreements with the Wistar Institute to collaboratively develop lung cancer diagnostics.</p> <p>Received IRB approval and initiated a large, prospective multicenter patient study at Scottsdale Medical Imaging Laboratories to assess performance of <i>PanC-Dx</i><sup>™</sup> markers in women undergoing mammography.</p> <p>Publication of results relating to <i>FSIP1</i>, a marker unique to breast cancer.</p>

Company	Program	Status
OrthoCyte	<p>Cartilage/Intervertebral disc repair using embryonic-derived progenitor cells (Osteoarthritis and chronic back pain)</p> <p>Bone repair using embryonic-derived progenitor cells (Spinal fusion, trauma and cranial maxillo-facial)</p> <p>cGMP cell production</p>	<p>Identified several cell lines that displayed molecular markers consistent with the production of definitive human cartilage.</p> <p>Confirmed chondrogenic potential in joint defects in rat models of osteoarthritis.</p> <p>Demonstrated <i>ex vivo</i> utility of progenitor lines in degenerating rabbit intervertebral disc tissue.</p> <p>Initiated <i>in vivo</i> proof of concept study to assess the ability of progenitor cells to repair and regenerate degenerated intervertebral discs in rabbits.</p> <p>Completed proof of concept study demonstrating ability of progenitor cells to modulate pain (allodynia) in a rat model.</p> <p>Initiated <i>in vitro</i> optimization of bone differentiation and induction using progenitor cells.</p> <p>Initiated large-scale progenitor cell expansion testing in cGMP compliant bioreactor systems.</p>
ReCyte Therapeutics	<p>Therapeutic products for age related vascular disease, including cardiovascular disorders utilizing its proprietary <i>ReCyte</i><sup>™</sup> technology and human pluripotent stem cell derived cells.</p>	<p>Evaluating progenitor stem cell-based and cell-derived therapeutics.</p> <p>Through BioTime, ReCyte Therapeutics has an ongoing collaboration with researchers at Cornell Weill Medical College for derivation and preclinical testing of endothelial progenitor cells for the treatment of age-related vascular disease.</p>
Cell Cure Neurosciences	<p><i>OpRegen</i><sup>®</sup> and <i>OpRegen</i><sup>®</sup>-<i>Plus</i> for treatment of age related macular degeneration (AMD).</p>	<p>Received approval from Israel ministry of health and US FDA to begin a Phase I/IIa clinical trial to determine safety and effective dose for <i>OpRegen</i><sup>®</sup> in patients with geographic atrophy stage of dry AMD. The trial will enroll at least 15 patients beginning in early 2015. We expect this phase to take several months and then will follow each patient for a minimum of 6 months.</p>
LifeMap Sciences	<p>Online, searchable databases</p> <p>Mobile health software development</p>	<p>Marketing searchable, integrated, database products, including:</p> <ul style="list-style-type: none"> <li>· <i>GeneCards</i><sup>®</sup>, a database of human genes that provides concise genomic, transcriptomic, genetic, proteomic, functional and disease related information, on all known and predicted human genes;</li> <li>· <i>MalaCards</i>, a database of human diseases that is based on the <i>GeneCards</i><sup>®</sup> platform and contains computerized “cards” classifying information relating to a wide array of human diseases; and</li> <li>· <i>LifeMap Discovery</i><sup>®</sup>, a database of embryonic development, stem cell research and regenerative medicine.</li> <li>· <i>Recently released VarElect</i>, a powerful, yet easy-to-use application for prioritizing gene variants resulting from next generation sequencing experiments.</li> </ul> <p>LifeMap Solutions developing mobile health software products in conjunction with the Icahn School of Medicine at Mount Sinai.</p>



## 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 nine months ended September 30, 2014 and for the fiscal years ended December 31, 2013, 2012, and 2011 were \$26,044,426, \$43,760,366, \$21,362,524, and \$17,535,587, respectively, and we had an accumulated deficit of \$171,606,642 as of September 30, 2014 and \$145,778,547, \$101,895,712, and \$80,470,009, as of December 31, 2013, 2012, and 2011, respectively. We primarily finance our operations through the sale of equity securities, licensing fees, royalties on product sales by our licensees, research grants, and subscription fees and advertising revenue from database products. Ultimately, our ability to generate sufficient operating revenue to earn a profit depends upon our and our subsidiaries' success in developing and marketing or licensing 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 \$26,267,972, during the nine months ended September 30, 2014, and \$26,609,423, \$18,116,688, and \$13,699,691 during the fiscal years ended December 31, 2013, 2012, and 2011, respectively, excluding \$17,458,766 charged as in process research and development expenses during 2013 in accordance with ASC 805-50 on account of Asterias' acquisition of certain assets from Geron Corporation ("Geron").
- If we are successful in developing a new technology or product, refinement of the new technology or product and definition of the practical applications and limitations of the technology or product may take years and require the expenditure of large sums of money. Future clinical trials of new therapeutic products, particularly those products that are regulated as drugs or biological, will be very expensive and will take years to complete. We may not have the financial resources to fund clinical trials on our own and we may have to enter into licensing or collaborative arrangements with larger, well-capitalized pharmaceutical companies in order to bear the cost. Any such arrangements may be dilutive to our ownership or economic interest in the products we develop, and we might have to accept a royalty payment on the sale of the product rather than receiving the gross revenues from product sales.

#### **Asterias' operations will result in an increase in our operating expenses and losses on a consolidated basis**

- Asterias will use the stem cell assets that it has acquired from Geron for the research and development of products for regenerative medicine. Asterias' research and development efforts will involve substantial expense that will add to our losses on a consolidated basis for the near future.
- Asterias has become a public company. As a public company, Asterias will incur costs associated with audits of its financial statements, filing annual, quarterly, and other periodic reports with the SEC, holding annual shareholder meetings, listing its common shares for trading, and public relations and investor relations. These costs will be in addition to those incurred by BioTime for similar purposes.
- As a developer of therapeutic products derived from hES or iPS cells, Asterias will face substantially the same kind of risks that affect our business, as well as the risks related to our industry generally.

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

- The success of our business of selling products for use in stem cell research depends on the growth of stem cell research, without which there may be no market or only a very small market for our 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 therapeutic 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 and religious, moral, and ethical concerns with respect to use of embryos or hES cells in research and development could have a material adverse effect on the growth of the stem cell industry, even if research proves that useful medical products can be developed using hES cells.

### **We are providing funding to LifeMap Sciences for the development of new software products**

Our subsidiary LifeMap Sciences has formed a new subsidiary, LifeMap Solutions, Inc., to develop new personal mobile health software products intended to connect users with their complex personal health information and other big data. We have agreed to invest at least \$5,000,000 in LifeMap Sciences to provide funding for the project, and unless additional financing can be obtained from third parties, we may need to increase our investment significantly during the next few calendar years to fund the development and commercialization of the planned products.

The field of mobile health products, including both hardware and software products, is new, and there is no certainty that LifeMap Solutions will be successful in developing its planned new products or that it will be successful in commercializing any products that it does develop.

The field of mobile health products is subject to increasing competition, including from large computer and internet technology companies that have much greater financial and marketing resources than we and LifeMap Solutions have.

The FDA has also taken an interest in the field of on-line or mobile health products and there is a risk that the FDA could determine that LifeMap Solutions' products should be regulated as medical devices under existing laws and regulations, or the FDA could promulgate new regulations that might subject LifeMap Solutions' products to FDA clinical trial and approval procedures, as a prerequisite for permission to use and market the new mobile health products in the United States. Foreign regulatory authorities could make similar determinations or could adopt their own rules regulating the use and marketing of LifeMap Solution's products.

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

- The revenues that we have received from sales of our products 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 are also bringing 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*<sup>®</sup> 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 presently markets *Hespan*<sup>®</sup>, an artificial plasma volume expander, and Hospira and Teva Pharmaceuticals sell a generic equivalent of *Hespan*<sup>®</sup>. Hospira also markets *Volugen*<sup>®</sup>, a plasma volume expander containing a 6% low molecular weight hydroxyethyl starch in saline solution.
- Competing products for the diagnosis and treatment of cancer are being manufactured and marketed by established pharmaceutical companies, and more cancer diagnostics and therapeutics are being developed by those companies and by other smaller biotechnology companies. Other companies, both large and small, are also working on the development of stem cell based therapies for the same diseases and disorders that are the focus of the research and development programs of our subsidiaries.
- There also is a risk that our competitors may succeed at developing safer or more effective products that could render our products and technologies obsolete or noncompetitive.

#### **Sales of *Hextend*<sup>®</sup> have been adversely affected by safety and use labeling changes required by the FDA**

Sales of *Hextend*<sup>®</sup> have been adversely affected by certain safety labeling changes required by the FDA for the entire class of hydroxyethyl starch products, including *Hextend*<sup>®</sup>. The labeling changes were approved by the FDA in November 2013 and include a boxed warning stating that the use of hydroxyethyl starch products, including *Hextend*<sup>®</sup>, increases the risk of mortality and renal injury requiring renal replacement therapy in critically ill adult patients, including patients with sepsis, and that *Hextend*<sup>®</sup> should not be used in critically ill adult patients, including patients with sepsis. New warning and precaution information is also required along with new information about contraindications, adverse reactions, and information about certain recent studies. The new warning and precautions include statements to the effect that the use of *Hextend*<sup>®</sup> should be avoided in patients with pre-existing renal dysfunction, and the coagulation status of patients undergoing open heart surgery in association with cardiopulmonary bypass should be monitored as excess bleeding has been reported with hydroxyethyl starch solutions in that population and use of *Hextend*<sup>®</sup> should be discontinued at the first sign of coagulopathy. The liver function of patients receiving hydroxyethyl starch products, including *Hextend*<sup>®</sup> should also be monitored. The approved revised label may adversely affect *Hextend*<sup>®</sup> sales since some users of plasma volume expanders might elect to abandon the use of all hydroxyethyl starch products, including *Hextend*<sup>®</sup>.

#### **We and our subsidiaries will 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 therapeutic and medical device products, depends upon the amount of money we have**

- At September 30, 2014, we had \$7,416,235 of cash and cash equivalents on hand. Although we have raised an additional \$31,000,314 of equity capital during October 2014, there can be no assurance that we or our subsidiaries will be able to raise 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 or limit the pace of our research and development work and planned clinical trials of our product candidates unless our cash resources increase through a growth in revenues or additional equity investment or borrowing.

## **The condition of certain cells, cell lines and other biological materials that Asterias acquired from Geron could impact the time and cost of commencing Asterias' research and product development programs**

The cells, cell lines and other biological materials that Asterias acquired are being stored under cryopreservation protocols intended to preserve their functionality. Asterias has successfully completed the verification of the viability of three lots of OPC1 cells that it intends to use in clinical trials. However, the functional condition of the other materials cannot be certified until they are tested in an appropriate laboratory setting by qualified scientific personnel using validated equipment. Asterias intends to perform that testing on the cells that it intends to use in its research and development programs as the need arises.

To the extent that the cells Asterias plans to use are not sufficiently functional for its purposes, Asterias would need to incur the time and expense of regenerating cell lines from cell banks, or regenerating cell banks from cell stocks, which could delay and increase the cost of its research and development work using those cells.

### **Any cell-based products that receive regulatory approval may be difficult and expensive to manufacture on a commercial scale**

- hES derived therapeutic cells have only been produced on a small scale and not in quantities and at levels of purity and viability that will be needed for wide scale commercialization. If we are successful in developing products that consist of hES cells or other cells or products derived from hES or other cells, we will need to develop, alone or in collaboration with one or more pharmaceutical companies or contract manufacturers, technology for the commercial production of those products.
- Our hES cell or other cell based products are likely to be more expensive to manufacture on a commercial scale than most other drugs on the market today. The high cost of manufacturing a product will require that we charge our customers a high price for the product in order to cover our costs and earn a profit. If the price of our products is too high, hospitals and physicians may be reluctant to purchase our products, especially if lower priced alternative products are available, and we may not be able to sell our products in sufficient volumes to recover our costs of development and manufacture or to earn a profit.

### **We and our subsidiaries will have certain obligations and may incur liabilities arising from clinical trials, and we do not yet know the scope of any resulting expenses that might arise**

We or our subsidiaries that conduct clinical trials of product candidates face the risk of incurring liabilities to patients if they incur any injuries as a result of their participation in the clinical trials. We or our subsidiaries will also be obligated to obtain information and prepare reports about the health of the clinical trial patients. In addition, Asterias has assumed Geron's obligations to obtain information and prepare reports about the health of patients, and has assumed any liabilities to those patients that might arise from any injuries they may have incurred, as a result of their participation in the clinical trials of Geron's GRNOPC1 cell replacement therapy for spinal cord damage and its GRNVAC1 immunological therapy for certain cancers. We are not aware of any claims by patients alleging injuries suffered as a result of any of our clinical trials or the Geron clinical trials, but if any claims are made and if liability can be established, the amount of any liability that we or our subsidiaries may incur, depending upon the nature and extent of any provable injuries, could exceed any insurance coverage that we or our subsidiaries may obtain, and the amount of the liability could be material to our financial condition.

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

BioTime stem cell research programs, and to a lesser extent, the programs of BioTime's subsidiaries, are directed primarily by our Chief Executive Officer, Dr. Michael West. BioTime's subsidiaries are directed by their respective management teams. The loss of the services of Dr. West or members of senior management of BioTime and its subsidiaries 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**

We have made several strategic acquisitions during the past few years, including ESI in 2010, Glycosan BioSystems, Inc. and Cell Targeting, Inc. in 2011, and XenneX, Inc. in 2012. Asterias acquired Geron's stem cell related assets during 2013. If appropriate opportunities become available, we might attempt to acquire approved products, additional drug candidates, technologies or businesses that we believe are a strategic fit with our business. If we pursue any transaction of that sort, the process of negotiating the acquisition and integrating an acquired product, drug candidate, technology or business might result in operating difficulties and expenditures and might require significant management attention that would otherwise be available for ongoing development of our business, whether or not any such transaction is ever consummated. Moreover, we might never realize the anticipated benefits of any acquisition. Future acquisitions could result in potentially dilutive issuances of equity securities, the incurrence of debt, contingent liabilities, or impairment expenses related to goodwill, and impairment or amortization expenses related to other intangible assets, which could harm our financial condition.

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

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting is a process to provide reasonable assurance regarding the reliability of financial reporting for external purposes in accordance with accounting principles generally accepted in the U.S. Internal control over financial reporting includes maintaining records that in reasonable detail accurately and fairly reflect our transactions; providing reasonable assurance that transactions are recorded as necessary for preparation of 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 our 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.

#### **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.

#### **We could be liable to indemnify Geron from certain liabilities**

We and Asterias have agreed to indemnify Geron from and against certain liabilities relating to (a) the distribution of shares of Asterias Series A common stock to Geron stockholders, (b) Asterias' distribution of certain BioTime warrants to the holders of Asterias Series A common stock, and (c) any distribution of securities by Asterias to the holders of the Asterias Series A common stock within one year following Asterias' acquisition of Geron's stem cell assets. That indemnification obligation will last through the fifth anniversary of the earliest to occur of the date on which all of the BioTime warrants have either expired, or been exercised, cancelled or sold.

We and Asterias have also agreed to indemnify Geron, from and against certain expenses, losses, and liabilities arising from, among other things, breaches of our or Asterias' representations, warranties and covenants under the Asset Contribution Agreement. The maximum damages that may be recovered by either party for a loss under this indemnification related to representations, warranties and covenants, with certain exceptions, is limited to \$2,000,000.

#### **Asterias' operations may divert our management's attention away from ongoing operations and could adversely affect ongoing operations and business relationships**

Now that Asterias has acquired Geron's stem cell assets and is conducting its own research and development programs, our management will be required to provide more management attention to Asterias. The diversion of our management's attention away from our other operations could adversely affect our operations and business relationships that do not relate to Asterias.

## 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 biotechnology and 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 therapeutic and medical device products**

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

- We will have to conduct expensive and time-consuming clinical trials of new products. The full cost of conducting and completing clinical trials necessary to obtain FDA 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 or cell-based 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 product may be encountered as a result of changes in regulatory agency policy.
- Because the therapeutic products we are developing with hES and iPS technology involve the application of new technologies and approaches to medicine, the FDA or foreign regulatory agencies may subject those products to additional or more stringent review than drugs or biologicals derived from other technologies.
- A product that is approved may be subject to restrictions on use.
- The FDA can recall or withdraw approval of a product if problems arise.
- We will face similar regulatory issues in foreign countries.

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

Clinical trial failures or delays can occur at any stage of the trials, and may be directly or indirectly caused by a variety of factors, including but not limited to:

- delays in securing clinical investigators or trial sites for our clinical trials;
- delays in obtaining institutional review board (IRB) and other regulatory approvals to commence a clinical trial;
- slower than anticipated rates of patient recruitment and enrollment, or failing to reach the targeted number of patients due to competition for patients from other trials;
- limited or no availability of coverage, reimbursement and adequate payment from health maintenance organizations and other third party payors for the use of agents used in our clinical trials;
- negative or inconclusive results from clinical trials;
- unforeseen side effects interrupting, delaying or halting clinical trials of our product candidates and possibly resulting in the FDA or other regulatory authorities denying approval of our product candidates;
- unforeseen safety issues;
- uncertain dosing issues;

- approval and introduction of new therapies or changes in standards of practice or regulatory guidance that render our clinical trial endpoints or the targeting of our proposed indications obsolete;
- inability to monitor patients adequately during or after treatment or problems with investigator or patient compliance with the trial protocols;
- inability to replicate in large controlled studies safety and efficacy data obtained from a limited number of patients in uncontrolled trials;
- inability or unwillingness of medical investigators to follow our clinical protocols; and
- unavailability of clinical trial supplies.

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

Government-imposed bans or restrictions on the use of embryos or hES cells in research and development in the 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 NIH has adopted new guidelines for determining the eligibility of hES cell lines for use in federally funded research. The central focus of the proposed guidelines is to assure that hES cells used in federally funded research were derived from human embryos that were created for reproductive purposes, were no longer needed for this purpose, and were voluntarily donated for research purposes with the informed written consent of the donors. The hES cells that were derived from embryos created for research purposes rather than reproductive purposes, and other hES cells that were not derived in compliance with the guidelines, are not eligible for use in federally funded research.

California law requires that stem cell research be conducted under the oversight of a 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 Supreme Court decisions in *Mayo Collaborative Services v. Prometheus Laboratories, Inc.* and *Association for Molecular Pathology v. Myriad Genetics* will need to be considered in determining whether certain diagnostic methods and reagents 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, and found that DNA sequences isolated from humans were not patent eligible. Our subsidiary OncoCyte is developing *PanC-Dx*<sup>TM</sup> as a cancer diagnostic test, based on the presence of certain genetic markers for a variety of cancers. Because *PanC-Dx*<sup>TM</sup> combines an innovative methodology with newly discovered compositions of matter, we are hopeful that this Supreme Court decision will not preclude the availability of patent protection for OncoCyte's new product. However, like other developers of diagnostic products, we are evaluating this new Supreme Court decision and new guidelines issued by the United States Patent and Trademark Office (the "USPTO") 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 USPTO for patents or applications filed before March 16, 2013 when more than one person files a patent application covering the same technology, or if someone wishes to challenge the validity of an issued patent. At the completion of the interference proceeding, the USPTO may determine which competing applicant is entitled to the patent, or whether an issued patent is valid. Patent interference proceedings are complex, highly contested legal proceedings, and the USPTO'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.
- A derivation proceeding may be instituted by the USPTO or an inventor alleging that a patent or application was derived from the work of another inventor.
- Post Grant Review under the new America Invents Act will make available after March 16, 2013 opposition-like proceedings in the United States. As with the USPTO interference proceedings, Post Grant Review proceedings will be very expensive to contest and can result in significant delays in obtaining patent protection or can result in a denial of a patent application.
- Oppositions to the issuance of patents may be filed under European patent law and the patent laws of certain other countries. As with the USPTO 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 and several foreign countries, and have filed patent applications in the United States and abroad for our plasma volume expander, stem cell products, *HyStem*<sup>®</sup> 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 USPTO 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 inter partes review, a proceeding in which a third party can challenge the validity of one of our patents.

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

The success of our business 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 and cell-based products and medical devices 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*<sup>®</sup> 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**

#### **If we fail to enter into and maintain successful strategic alliances for our therapeutic product candidates, we may have to reduce or delay our product development or increase our expenditures**

An important element of our strategy for developing, manufacturing and commercializing our therapeutic product candidates will be entering into strategic alliances with pharmaceutical companies or other industry participants to advance our programs and enable us to maintain our financial and operational capacity. We will face significant competition in seeking appropriate alliances. We may not be able to negotiate alliances on acceptable terms, if at all. If we fail to create and maintain suitable alliances, we may have to limit the size or scope of, or delay, one or more of our product development or research programs, or we will have to increase our expenditures and will need to obtain additional funding, which may be unavailable or available only on unfavorable terms.

If we are able to enter into product development and marketing arrangements with pharmaceutical companies, we may license product development, manufacturing, and marketing rights to the pharmaceutical company or to a joint venture company formed with the pharmaceutical company. Under such arrangements we might receive only a royalty on sales of the products developed or an equity interest in a joint venture company that develops the product. As a result, our revenues from the sale of those products may be substantially less than the amount of revenues and gross profits that we might receive if we were to develop, manufacture, and market the products ourselves.

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

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

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

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

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

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

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

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

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

**Risks Pertaining to Our Common Shares**

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

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

- The market price of our common shares, like that of the shares of many biotechnology companies, has been highly volatile.
- The price of our common shares may rise rapidly in response to certain events, such as the commencement of clinical trials of an experimental new drug, even though the outcome of those trials and the likelihood of ultimate FDA approval remain uncertain.
- Similarly, prices of our common shares may fall rapidly in response to certain events such as unfavorable results of clinical trials or a delay or failure to obtain FDA 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.
- Changes in the price of our common shares will affect the price at which our warrants may trade.

**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 our common shares.

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

We do not pay cash dividends on our common shares. For the foreseeable future, we anticipate that any earnings generated in our business will be used to finance the growth of our business and, except for semi-annual dividends on our Series A Convertible Preferred Stock, will not be paid out as dividends to our shareholders. This means that our common shares 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 common 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 and our warrants. If securities analysts do cover our common shares, they could issue reports or recommendations that are unfavorable to the price of our common shares, and they could downgrade a previously favorable report or recommendation, and in either case our share and warrant prices could decline as a result of the report. If one or more of these analysts does not initiate coverage, ceases to cover our common shares or fails to publish regular reports on our business, we could lose visibility in the financial markets, which could cause our share and warrant prices or trading volume to decline.

## **You may experience dilution of your ownership interests because of the future issuance of additional common shares 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 127,000,000 shares of capital stock consisting of 125,000,000 common shares and 2,000,000 “blank check” preferred shares. As of January 29, 2015, there were 83,148,679 common shares and 70,000 shares of Series A Convertible Preferred Stock, convertible into 875,000 common shares, outstanding, 3,947,345 common shares reserved for issuance upon the exercise of outstanding options under our employee stock option plans; and 9,194,679 shares reserved for issuance upon the exercise of common share purchase warrants, including the 7,999,677 publicly traded warrants.

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

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

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

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

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

## **Dividend Policy**

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, except for semi-annual dividends on our Series A Convertible Preferred Stock, will not be paid out as dividends to our shareholders. Any future determination to pay cash dividends on our common shares 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 reallowed 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 re-allowed 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 125,000,000 common shares, no par value, of which 83,148,679 shares were outstanding at January 29, 2015.

As of December 31, 2014, there were 14,323 holders of our common shares based on the share position listing. Each holder of record is entitled to one vote for each outstanding common share owned by the holder 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. We have not paid any cash dividends on our common shares, and it is unlikely that any cash dividends will be declared or paid on any common shares in the foreseeable future. Instead, we plan to retain our cash for use in financing our future operations and growth.

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

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

Our Articles of Incorporation currently authorize the issuance of up to 2,000,000 preferred shares, no par value. We may issue preferred shares in one or more series, at any time, with such rights, preferences, privileges and restrictions as the Board of Directors may determine, all without further action of our shareholders. Any series of preferred shares which may be authorized by the Board of Directors in the future may be senior to and have greater rights and preferences than the common shares.

As of January 29, 2015, we had 70,000 shares of Series A Convertible Preferred Stock (“Series A Preferred Stock”) outstanding. The Series A Preferred Stock carries a cumulative annual 3% preferred dividend or \$1.50 per share, in preference to BioTime common shares. Each share of Series A Preferred Stock is convertible, at the election of the holder, into BioTime common shares at a conversion price of \$4.00 per share, a current conversion ratio of 12.5 common shares for each share of Series A Preferred Stock. In addition to the preferred dividend, the Series A Preferred Stock will be entitled to participate with BioTime common shares in any dividends or distributions on common shares (other than dividends and distributions of common shares resulting in an adjustment of the conversion price) as if all shares of Series A Preferred Stock were then converted into common shares.

All outstanding Series A Preferred Stock will automatically be converted into common shares on March 4, 2019, or if holders of a majority of the outstanding shares of Series A Preferred Stock, voting as a class, approve or consent to a conversion. The conversion price is subject to prorata adjustment in the event of a subdivision or reclassification of the common shares into a greater number of shares, a stock dividend paid in common shares, or a stock combination or reclassification of the common shares into a smaller number of shares.

The Series A Preferred Stock will be entitled to vote with common shares on all matters submitted to holders of common shares for approval. Each share of Series A Preferred Stock will be entitled to a number of votes equal to the number of common shares into which it could then be converted. The Series A Preferred Stock will also vote as a separate class on certain matters affecting those shares.

In the event of a liquidation or dissolution of BioTime, holders of Series A Preferred Stock will be entitled to receive payment of any accrued but unpaid preferred dividends before any assets may be distributed to holders of common shares. After payment of the accrued dividends, the Series A Preferred Stock will participate with the common shares in the distribution of any assets available to shareholders, as if the Series A Preferred Stock was then converted into common 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 depositary 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 9,194,679 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.

<b>Number of Warrants</b>	<b>Shares Issuable(1)</b>	<b>Exercise Price(1)</b>	<b>Expiration Date</b>
7,999,677	7,999,677	\$5.00	October 1, 2018
649,998	649,998	\$5.00	January 13, 2016
545,004	545,004	\$5.00	June 5, 2016

- (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, and upon the occurrence of certain other transactions.

## 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, 2013 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, 2013, filed with the SEC on March 17, 2014;
- our Quarterly Report on Form 10-Q for the three month period ended March 31, 2014 filed with the SEC on May 12, 2014;
- our Quarterly Report on Form 10-Q for the three and six-month period ended June 30, 2014, filed with the SEC on August 11, 2014;
- our Quarterly Report on Form 10-Q for the three and nine-month period ended September 30, 2014, filed with the SEC on November 7, 2014, as amended by Amendment No. 1 thereto filed with the SEC on January 13, 2015;
- our Current Reports on Form 8-K filed with the SEC on January 2, March 5, March 26, March 27, April 11, May 9, May 28, May 30, June 12, June 17 (two filings), July 7, July 31, August 27, September 11, September 15, September 23, September 30, October 3, October 6, October 22, November 3, November 4, November 10, December 15, and December 29, 2014 (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 October 10, 2014; 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.

**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	\$ 11,620.00	*
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. (1)
4.1	Specimen of common share certificate. (2)
4.2	Form of preferred shares certificate, and Form of certificate of designation of preferred shares. (1)
4.3	Form of Indenture.(1)
4.4	Form of Debt Security.(1)
4.5	Form of Warrant Agreement, including form of Warrant Certificate. (1)
4.6	Form of Unit Agreement and unit certificate, if any. (1)
4.7	Form of Right Agreement and right certificate, if any. (1)
<a href="#">5.1</a>	Opinion of Thompson, Welch, Soroko & Gilbert LLP *
12.1	Statement Regarding Computation of Ratio of Earnings to Fixed Charges (1)
<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. (1)

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

(2) 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.

\* 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.





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February 2, 2015

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 (the "Registration Statement"), to be filed by BioTime with the Securities and Exchange Commission (the "Commission") on the date hereof pursuant to the Securities Act of 1933, as amended (the "Securities Act"), to register for sale under the Securities Act up to \$100,000,000 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.

In connection with the foregoing, we have relied upon, among other things, our examination of such documents, records of BioTime, certificates of BioTime's officers, and certificates of 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 (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 agreement 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 agreement or other purchase agreement, the Offered Preferred Shares will be duly authorized, validly issued, fully paid and non-assessable.

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 agreement, underwriting agreement 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 the availability of equitable relief, including specific performance.

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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 agreement 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.

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 (i) any Offered Securities that are issuable upon the exercise of the Offered Rights, and (ii) 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 agreement 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.

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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 agreement 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.

To the extent that the foregoing opinions apply to Common Shares or Preferred Shares (whether as Offered Common Shares, Offered Preferred 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.

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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

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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 and Prospectus Supplement of our report dated March 17, 2014, with respect to the audit of the consolidated balance sheets of BioTime, Inc. and Subsidiaries (collectively the "Company") as of December 31, 2013 and 2012, 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, 2013, which report appears in the Annual Report on Form 10-K of the Company for the year ended December 31, 2013, and to the reference to our firm under the caption "Experts" in the Prospectus and Prospectus Supplement.

/s/ Rothstein Kass

Roseland, New Jersey  
February 2, 2015

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