

SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

POST-EFFECTIVE AMENDMENT NO. 5
ON FORM S-3
TO
FORM S-2
REGISTRATION STATEMENT UNDER
THE SECURITIES ACT OF 1933
BIOTIME, INC.

(Exact name of Registrant as specified in 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 offices),

Michael D. West, Chief Executive 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 of all communications, including all communications sent to the agent for service, should be sent to:

RICHARD S. SOROKO, ESQ.
Lippenberger, Thompson, Welch, Soroko & Gilbert LLP
201 Tamal Vista Blvd.
Corte Madera, California 94925
Tel. (415) 927-5200

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

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

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

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 Securities Exchange Act of 1934. (Check one):

Large accelerated filer

Accelerated filer

Non-accelerated filer

(Do not check if a smaller reporting company)

Smaller reporting company

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



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

Subject to Completion, Dated January 7, 2010

PROSPECTUS

BIOTIME, INC.

7,060,488 Warrants

7,060,488 Common Shares Issuable Upon Exercise of Warrants

2,694,282 Common Shares Held by Selling Security Holders

This prospectus relates to 7,060,488 outstanding warrants, and the common shares that may be issued upon the exercise of the warrants. The exercise price of the warrants is \$2.00 per share. The warrants will expire at 5:00 New York time on October 31, 2010 and may not be exercised after that date.

We are offering holders of those warrants the opportunity to exercise at least a portion of their warrants at a discounted exercise price for a limited period of time. Until 5:00 p.m. New York Standard Time on _____, 2010 (the "Discount Offer Expiration Time"), we will allow up to 3,000,000 warrants to be exercised at an exercise price of \$1.70 per share (the "Discount Offer"). This represents a discount of \$0.30 per share from the regular exercise price of \$2.00 per share.

All exercises of the warrants at the discounted exercise price will be subject to proration if more than 3,000,000 warrants are exercised in the Discount Offer. All warrants and exercise price funds received by the warrant agent, American Stock Transfer & Trust Company, will be held until approximately ___ business days after the Discount Offer Expiration Time, at which time the warrant agent will determine the total number of warrants received that have been exercised properly in the Discount Offer. If that number exceeds 3,000,000, the warrant agent will allocate common shares among the warrant holders on a pro rata basis, based upon the number of warrants exercised by each warrant holder and total number of warrants exercised by all warrant holders in the Discount Offer. Any exercise price funds received by the warrant agent in excess of the aggregate exercise price of the common shares allocated to a warrant holder in the Discounted Offer will be returned to the warrant holder without interest or deduction.

If a warrant holder exercises fewer than all of the warrants evidenced by their warrant certificate, or if the exercise of their warrant is subject to proration, the warrant agent will also deliver to the warrant holders a new warrant certificate for the unexercised portion of their warrant certificate. The warrant agent expects that certificates for shares issued in the Discount Offer will be mailed to the exercising warrant holders approximately ___ business days after the proration period.

During and after the Discount Offer, warrant holders who desire to exercise their warrants and receive common shares immediately, without proration, will be able to exercise the warrants at the regular exercise price of \$2.00 per share.

This warrants included in this prospectus include 3,963,140 warrants that we issued in our subscription rights offers that were completed during January 2004 and December 2005 and 3,097,348 warrants held by certain persons or affiliates of persons who acted as "Guarantors" or "Participating Debenture Holders" in the subscription rights offers. This prospectus also relates to 2,694,282 common shares held by the Guarantors and Participating Debenture Holders.

The common shares are quoted on the NYSE Amex under the symbol BTIM, and the warrants are quoted on the NYSE Amex under the symbol BTIM.WS. The closing price of the common shares on the NYSE Amex on December 10, 2009 was \$4.68, and the closing price of the warrants on the NYSE Amex on December 10, 2009 was \$2.55.

We will receive the exercise price of the warrants when those securities are exercised. However, all of the net proceeds from the sale of outstanding common shares and warrants will belong to the selling security holders and not to us.

These securities involve a high degree of risk and should be purchased only by persons who can afford the loss of their entire investment. See “Risk Factors” on page 11.

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

The date of this prospectus is January __, 2010

[This Page Intentionally Left Blank]

PROSPECTUS SUMMARY

The following summary explains only some of the information in this prospectus. More detailed information and financial statements appear elsewhere in this prospectus. Statements contained in this prospectus that are not historical facts may constitute forward-looking statements that are subject to risks and uncertainties that could cause actual results to differ materially from those discussed. Words such as “expects,” “may,” “will,” “anticipates,” “intends,” “plans,” “believes,” “seeks,” “estimates,” and similar expressions identify forward-looking statements. See “Risk Factors.”

BioTime, Inc.

Overview

We are a biotechnology company engaged in two areas of biomedical research and product development. The first product segment is blood plasma volume expanders and related technology for use in surgery, emergency trauma treatment, and other applications. Our lead blood plasma expander product, Hextend[®], is a physiologically balanced intravenous solution used in the treatment of hypovolemia. Hypovolemia is a condition caused by low blood volume, often from blood loss during surgery or from injury. Hextend maintains circulatory system fluid volume and blood pressure and keeps vital organs perfused during surgery and trauma care.

Our second product segment is regenerative medicine. Regenerative medicine refers to therapies based on human embryonic stem (“hES”) cell technology designed to rebuild cell and tissue function lost due to degenerative disease or injury. These novel stem cells provide a means of manufacturing every cell type in the human body and therefore show considerable promise for the development of a number of new therapeutic products. We are focusing our current efforts in the regenerative medicine field on the development and sale of advanced human stem cell products and technology that can be used by researchers at universities and other institutions, at companies in the bioscience and biopharmaceutical industries, and at other companies that provide research products to companies in those industries. These research-only products generally can be marketed without regulatory (FDA) approval, and are therefore relatively near-term business opportunities when compared to therapeutic products. These products are currently being marketed through our wholly owned subsidiary, Embryome Sciences, Inc. We may also initiate development programs for human therapeutic applications should it be determined that it is practical to raise the required capital or to co-develop products with a third party on terms acceptable to us. We recently were awarded a \$4,721,706 grant from the California Institute of Regenerative Medicine for a stem cell research project related to our ACTCellerate[™] embryonic stem cell technology that will address the need for industrial scale production of purified therapeutic cells.

Our operating revenues have been derived almost exclusively from royalties and licensing fees related to the sale of our plasma volume expander products, primarily Hextend. We began to make our first stem cell research products available during 2008, but we have not yet generated significant revenues in that business segment. Our ability to generate substantial operating revenue depends upon our success in developing and marketing or licensing our plasma volume expanders and stem cell products and technology for medical and research use.

Plasma Volume Expander Products

We develop blood plasma volume expanders, blood replacement solutions for hypothermic (low temperature) surgery, organ preservation solutions, and technology for use in surgery, emergency trauma treatment, and other applications. Our first product, Hextend[®], is a physiologically balanced blood plasma volume expander for the treatment of hypovolemia. Hypovolemia is a condition caused by low blood volume, often from blood loss during surgery or from injury. Hextend maintains circulatory system fluid volume and blood pressure and keeps vital organs perfused during surgery. Hextend, approved for use in major surgery, is the only blood plasma volume expander that contains lactate, multiple electrolytes, glucose, and a medically approved form of starch called hetastarch. Hextend is designed to compete with and to replace products that have been used to maintain fluid volume and blood pressure during surgery.

Hextend has become the standard plasma volume expander at a number of prominent teaching hospitals and leading medical centers, and is part of the United States Armed Forces Tactical Combat Casualty Care protocol. We believe that as Hextend use proliferates within the leading U.S. hospitals, other smaller hospitals will follow their lead, contributing to sales growth.

Hextend is manufactured and distributed in the United States by Hospira, Inc. (“Hospira”) and in South Korea by CJ CheilJedang Corp. (“CJ”) under license from us. Summit Pharmaceuticals International Corporation (“Summit”) has a license to develop Hextend and PentaLyte in Japan, the People’s Republic of China, and Taiwan.

We have completed a Phase II clinical trial of PentaLyte in which PentaLyte was used to treat hypovolemia in cardiac surgery. Our ability to commence and complete additional clinical studies of PentaLyte depends on our cash resources, the costs involved, and licensing arrangements with a pharmaceutical company capable of manufacturing and marketing PentaLyte. We are currently seeking a licensee or co-developer to advance the commercialization of PentaLyte.

Stem Cells and Products for Regenerative Medicine Research

Regenerative medicine refers to therapies based on human embryonic stem (“hES”) cell technology that are designed to rebuild cell and tissue function lost due to degenerative disease or injury. These hES cells are pluripotent, meaning they have the potential to become any kind of cell found in the human body. Since embryonic stem cells can now be derived in a noncontroversial manner, they are increasingly likely to be utilized in a wide array of future therapies to restore the function of organs damaged by degenerative diseases such as heart failure, stroke, and diabetes.

We are focusing our initial efforts in the regenerative medicine field on the development and sale of advanced human stem cell products and technologies that can be used by researchers at universities and other institutions, at companies in the bioscience and biopharmaceutical industries, and at other companies that provide research products to companies in those industries. These products are currently being marketed through our wholly owned subsidiary, Embryome Sciences, Inc. By focusing our resources on products and technologies that will be used by researchers and drug developers at larger institutions and corporations, we believe that we will be able to commercialize products more quickly, using less capital, than if we were developing therapeutic products ourselves. We may also attempt to develop our own human stem cell products for diagnostic and therapeutic uses in the future, if we believe that we have sufficient resources to do so or if we can do so in collaboration with other companies or institutions inside and outside the United States.

Embryome Sciences has already introduced its first stem cell research products, and is implementing plans to develop additional research products over the next two years. One of our first products is a relational database that will permit researchers to chart the cell lineages of human development, the genes expressed in those cell types, and antigens present on the cell surface of those cells that can be used in purification. This database will provide the first detailed map of the embryo and will aid researchers in navigating the complexities of human development and in identifying the many hundreds of cell types coming from embryonic stem cells. Our embryo map data base is now available at our website *Embryome.com*.

When Embryome Sciences acquired a license to use ACTCellerate™ technology, it also acquired the rights to market approximately 100 progenitor cell types made using ACTCellerate™ technology. ACTCellerate™ technology allows the rapid isolation of novel, highly-purified embryonic progenitor cells (“hEPCs”). These hEPCs are intermediate in the developmental process between embryonic stem cells and fully differentiated cells. hEPCs may possess the ability to become a wide array of cell types with potential applications in research, drug discovery, and human regenerative stem cell therapy.

Embryome Sciences has entered into an agreement under which Millipore Corporation became a worldwide distributor of ACTCellerate™ human progenitor cell lines. Millipore’s initial offering of Embryome Sciences’ products will include six novel progenitor cell lines and optimized ESpan™ growth media for the *in vitro* propagation of each progenitor cell line. The companies anticipate jointly launching 35 cell lines and associated ESpan™ growth media within the coming 12 months. The Embryome Sciences products distributed by Millipore may also be purchased directly from Embryome Sciences at *Embryome.com*.

Embryome Sciences also plans to offer for sale an array of hES cell lines carrying inherited genetic diseases such as cystic fibrosis and muscular dystrophy. When available, these hES products will also be sold online at *Embryome.com*. Additional new products that Embryome Sciences has targeted for development are ESpy™ cell lines, which will be derivatives of hES cells that send beacons of light in response to the activation of particular genes.

Embryome Sciences also plans to bring to market other new growth and differentiation factors that will permit researchers to manufacture specific cell types from embryonic stem cells, and purification tools useful to researchers in quality control of products for regenerative medicine. As new products are developed, they will become available for purchase on *Embryome.com*.

We have also announced that we are organizing a new subsidiary, BioTime Asia, Limited, for the purpose of clinically developing and marketing therapeutic stem cell products in the People's Republic of China, and marketing stem cell research products in China and other countries in Asia. BioTime Asia will initially seek to develop the therapeutic products for the treatment of ophthalmologic, skin, musculo-skeletal system, and hematologic diseases, including the targeting of genetically modified stem cells to tumors as a novel means of treating currently incurable forms of cancer.

We have engaged the services of Dr. Daopei Lu to aid BioTime Asia in arranging and managing clinical trials of therapeutic stem cell products. Dr. Lu is a world-renowned hematologist and expert in the field of hematopoietic stem cell transplants who pioneered the first successful syngeneic bone marrow stem cell transplant in the People's Republic of China to treat aplastic anemia and the first allogeneic peripheral blood stem cell transplant to treat acute leukemia. Nanshan Memorial Medical Institute Limited ("NMMI"), a private Hong Kong company, has entered into an agreement with us under which NMMI will become a minority shareholder in BioTime Asia and will provide BioTime Asia with its initial laboratory facilities and an agreed number of research personnel, and will arrange financing for clinical trials.

BioTime and our subsidiary, Embryome Sciences, Inc., will license to the new venture the rights to use certain stem cell technology, and will sell to the new venture stem cell products for therapeutic use and for resale as research products. To the extent permitted by law, BioTime Asia will license back to us for use outside of China any new technology that BioTime Asia might develop or acquire.

Our obligations are subject to certain conditions and contingencies, including the completion of feasibility studies for the venture. Either we or NMMI may terminate the agreement if certain clinical trial milestones are not met, including the commencement of the first clinical trial of a therapeutic stem cell product within two years.

During October 2009, we organized OncoCyte Corporation for the purpose of developing novel therapeutics for the treatment of cancer based on stem cell technology. We and Embryome Sciences will license certain technology to OncoCyte restricted to the field of cell-based cancer therapies, including early patent filings on targeting stem cells to malignant tumors. OncoCyte's new therapeutic strategy and goal will be to utilize human embryonic stem cell technology to create genetically modified stem cells capable of homing to specific malignant tumors while carrying genes that can cause the destruction of the cancer cells.

There is no assurance that BioTime Asia or OncoCyte will be successful in developing any new technology or stem cell products, or that any technology or products that they may develop will be proven safe and effective in treating cancer or other diseases in humans, or will be successfully commercialized. Our potential therapeutic products are at a very early stage of preclinical development. Before any clinical trials can be conducted by BioTime Asia or OncoCyte, they would have to compile sufficient laboratory test data substantiating the characteristics and purity of the stem cells, conduct animal studies, and then obtain all necessary regulatory and clinical trial site approvals, and assemble a team of physicians and statisticians for the trials.

On April 29, 2009, the California Institute of Regenerative Medicine (“CIRM”) awarded us a \$4,721,706 grant for a stem cell research project related to our ACTCellerate™ embryonic stem cell technology. Our grant project is titled “Addressing the Cell Purity and Identity Bottleneck through Generation and Expansion of Clonal Human Embryonic Progenitor Cell Lines.” In our CIRM-funded research project we will work with hEPCs generated using our ACTCellerate™ technology. The hEPCs are relatively easy to manufacture on a large scale and in a purified state, which may make it advantageous to work with these cells compared to the direct use of hES cells. We will work on identifying antibodies and other cell purification reagents that may be useful in the production of hEPCs that can be used to develop pure therapeutic cells such as nerve, blood vessel, heart muscle, and cartilage, as well as other cell types.

We intend to use a substantial portion of any proceeds we receive from the exercise of the warrants to finance our research and development programs. However, we cannot predict in advance how many warrants will be exercised or when they will be exercised. The amount and pace of research and development work that we can do or sponsor, and our ability to commence and complete clinical trials required to obtain FDA and foreign regulatory approval of products, depends upon the amount of money we have. Future research and clinical study costs are not presently determinable due to many factors, including the inherent uncertainty of these costs and the uncertainty as to timing, source, and amount of capital that will become available for these projects. We have already curtailed the pace and scope of our plasma volume expander development efforts due to the limited amount of funds available, and we may have to postpone further laboratory and clinical studies, unless our cash resources increase through growth in revenues, the completion of licensing agreements, additional equity investment, borrowing, or third party sponsorship.

Hextend® and PentaLyte® are registered trademarks of BioTime, Inc., and ESpan™, ReCyte™, and Espy™ are trademarks of Embryome Sciences, Inc. ACTCellerate™ is a trademark licensed to Embryome Sciences, Inc. by Advanced Cell Technology, Inc.

Purpose of the Discount Offer

We have determined that it would be beneficial for us to raise additional capital at this time to finance our operations, including:

- Research and development work by our subsidiary OncoCyte Corporation to develop stem cell products for the treatment of cancer;
- Continued research and product development work by us and our subsidiary Embryome Sciences; and

- General and administrative expenses.

We are making the Discount Offer to raise additional capital without significant dilution of the ownership interests of existing shareholders or warrant holders since the exercise of warrants in the Discount Offer will not involve the issuance of new warrants. Warrant holders who exercise their warrants will be able to purchase shares at a price below market without incurring broker's commissions. Because participation in the Discount Offer is optional, warrant holders may still elect to continue to hold their warrants without exercising them at this time, or they may sell them on the NYSE Amex from time to time.

Offering Summary

Discount Offer	Under the Discount Offer, up to 3,000,000 warrants may be exercised at a price of \$1.70 until the Discount Offer Expiration Time.
Discount Offer Expiration Time	The Discount Offer will expire at 5:00 p.m. Eastern Standard Time on _____, 2010.
How to Exercise Warrants	The warrants are evidenced by warrant certificates. You may exercise your warrants by completing the purchase form on the back of the warrant certificate and delivering it, together with payment of the exercise price, to the warrant agent, American Stock Transfer & Trust Company, 59 Maiden Lane, New York, New York 10038. Your signature on the purchase form must be guaranteed by a financial institution that is a participant in a recognized signature guarantee program. Payment of the exercise price of the warrants must be made in cash or by certified or bank cashier's check or by wire transfer. During the Discount Offer only, you may also exercise your warrants by notice of guaranteed delivery. See "The Discount Offer and Description of the Warrants --Payment of Exercise Price". If your warrants are held in the name of Cede & Co. as nominee for The Depository Trust Company, or in the name of any other depository or nominee, you should contact your broker-dealer or other financial institution that holds your warrants in order to exercise them. You may not rescind an exercise of your warrants.
Amendment, Extension, or Termination of the Discount Offer	BioTime may, in its sole discretion: (a) terminate the Discount Offer; (b) extend the expiration date of the Discount Offer to a later date; or (c) amend or modify the terms of the Discount Offer.

Participation by Directors
and their Affiliates

The members of our Board of Directors who own warrants or control warrants through affiliates have agreed to give other warrant holders priority in exercising warrants in the Discount Offer. If the warrant agent receives more than 3,000,000 warrants for exercise in the Discount Offer, common shares will first be allocated among the warrant holders who are not directors or affiliates of our directors, so that our directors and their affiliates will be allowed to exercise warrants in the Discount Offer only to the extent that doing so does not reduce the number of warrants that may be exercised by other warrant holders.

Other Terms of Warrants:

Each warrant entitles the holder to purchase one common share at a price of \$2.00 per share, except for warrants exercised in the Discount Offer.

The warrants will expire on October 31, 2010 and may not be exercised after that date.

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

We may redeem the warrants by paying \$.05 per warrant if the closing price of the common shares on the NYSE Amex exceeds 200% of the exercise price of the warrants for any 20 consecutive trading days. We will give the warrant holders 20 days written notice of the redemption, setting the redemption date, and the warrant holders may exercise the warrants prior to the redemption date. The warrants may not be exercised after the last business day prior to the redemption date.

Common Shares Offered

7,060,488 common shares are being offered by us upon the exercise of the warrants.

2,819,282 outstanding common shares are being offered by the selling shareholders.

Warrants Offered
By Selling Security Holders

3,097,348 warrants are being offered by the selling warrant holders

Common Shares Outstanding

33,646,867 as of December 10, 2009.

RISK FACTORS

An investment in our shares and warrants involves a high degree of risk. You should purchase our shares and warrants only if you can afford to lose your entire investment. Before deciding to purchase any of the shares or warrants offered by this prospectus, you should consider the following factors which could materially adversely affect our proposed operations, our business prospects, and the value of an investment in our shares or warrants. There may be other factors that are not mentioned here or of which we are not presently aware that could also affect our operations.

Risks Related to Our Business Operations

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

Our net losses for the nine months ended September 30, 2009 and for the fiscal years ended December 31, 2008 and 2007 were \$6,564,339, \$3,780,895 and \$1,438,226, respectively, and we had an accumulated deficit of \$54,190,078, \$47,625,392, and \$43,844,497 as of September 30, 2009, December 31, 2008, and December 31, 2007, respectively. Since inception, we have primarily financed our operations through the sale of equity securities, licensing fees, royalties on product sales by our licensees, and borrowings. Also, we have recently been awarded a research grant from the California Institute of Regenerative Medicine for a particular project. Ultimately, our ability to generate sufficient operating revenue to earn a profit depends upon our success in developing and marketing or licensing our products and technology.

Our auditor's report contains a qualification regarding our ability to continue as a going concern.

The report of our independent public accountants, who audited our financial statements for the years ended December 31, 2008 and 2007, contains a paragraph stating that our working capital deficit, shareholders' deficit, and accumulated deficit as reflected in those financial statements, among other conditions, raise substantial doubt about our ability to continue as a going concern.

Sales of Hextend to date have not been sufficient to generate an amount of royalties or licensing fees sufficient to cover our operating expenses

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

- We will receive additional license fees and royalties if our licensees are successful in marketing Hextend and PentaLyte in Japan, Taiwan, and China, but they have not yet obtained the regulatory approvals required to begin selling those products.
- We are also beginning to bring our first stem cell research products to the market but there is no assurance that we will succeed in generating significant revenues from the sale of those products.

We may not succeed in marketing our plasma volume expander products due to the availability of competing products

Factors that affect the marketing of our products include the following:

- Hextend and our other plasma expander products will compete with other products that are commonly used in surgery and trauma care and sell at lower prices.
- In order to compete with other products, particularly those that sell at lower prices, our products will have to provide medically significant advantages.
- Physicians and hospitals may be reluctant to try a new product due to the high degree of risk associated with the application of new technologies and products in the field of human medicine.
- Competing products are being manufactured and marketed by established pharmaceutical companies. For example, B. Braun/McGaw presently markets Hespan, an artificial plasma volume expander, and Hospira and Baxter International, Inc. manufacture and sell a generic equivalent of Hespan.
- There also is a risk that our competitors may succeed in developing safer or more effective products that could render our products and technologies obsolete or noncompetitive.

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 on 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 \$1,909,619 during the nine months ended September 30, 2009, \$1,706,214 during the fiscal year ended December 31, 2008, and \$967,864 during the fiscal year ended December 31, 2007.

- 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 products such as PentaLyte may take longer and may be more costly than our Hextend clinical trials. The FDA permitted us to proceed directly into a Phase III clinical trial of Hextend involving only 120 patients because the active ingredients in Hextend had already been approved for use by the FDA in other products. Because PentaLyte contains a starch that has not been approved by the FDA for use in a plasma volume expander, we have had to complete Phase I and Phase II clinical trials of PentaLyte, and we will have to complete a Phase III trial that will involve more patients than our Hextend trials. We do not yet know the scope or cost of the Phase III clinical trials that the FDA will require for PentaLyte or the other products we are developing.

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

- We are developing and marketing products for use in stem cell research, including products that we plan to sell to companies and institutions that are seeking to develop human therapeutic stem cell products.
- The success of our business depends on the growth of stem cell research, without which there may be no market or only a very small market for our products and technology. The likelihood that stem cell research will grow depends upon the successful development of stem cell products that can be used to treat disease or injuries in people or that can be used to facilitate the development of other pharmaceutical products. However, stem cells have not been used in human medicine and have only been used in laboratory studies on animals.
- There can be no assurance that any safe and efficacious human medical applications will be developed using stem cells or related technology.
- Government-imposed restrictions and religious, moral, and ethical concerns with respect to use of embryos or human embryonic stem cells in research and development could have a material adverse effect on the growth of the stem cell industry even if research proves that useful medical products can be developed using human embryonic stem cells.

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

- We plan to continue to incur substantial research and product development expenses, and we 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 a substantial portion of the warrants are exercised, or we receive substantial revenues from the sale of our new products, or we are successful in 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 could result in the dilution of the interests of present shareholders.

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

- We intend to use a substantial portion of any proceeds we receive from the exercise of the warrants to finance our research and development programs. However, we cannot predict in advance how many warrants will be exercised or when they will be exercised.
- Although we were recently awarded a \$4,721,706 grant for a stem cell research project, and we recently received \$8,000,000 through the sale of stock and warrants, and our subsidiary OncoCyte Corporation has received \$4,000,000 through the sale of stock, there can be no assurance that we will be able to raise additional funds on favorable terms or at all, or that any funds raised will be sufficient to permit us to develop and market our products and technology. Unless we are able to generate sufficient revenue or raise additional funds when needed, it is likely that we will be unable to continue our planned activities, even if we make progress in our research and development projects.
- We have already curtailed the pace and scope of our plasma volume expander development efforts due to the limited amount of funds available, and we may have to postpone other laboratory research and development work unless our cash resources increase through a growth in revenues or additional equity investment or borrowing.

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

Our stem cell research program is directed primarily by our Chief Executive Officer, Dr. Michael West. The loss of Dr. West's services could have a material adverse effect on us.

Risks Related to Our Industry

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

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

The pharmaceutical products that we develop cannot be sold until the FDA and corresponding foreign regulatory authorities approve the products for medical use. Hextend has been approved for use in the United States, Canada, and Korea only. One of our licensees has been conducting a Phase III equivalent clinical trial of Hextend in Japan. We have conducted a Phase II clinical trial of PentaLyte as a plasma volume expander in surgery but we do not have sufficient financing to commence a Phase III trial.

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 completing a Phase III clinical trial of PentaLyte necessary to obtain FDA approval cannot be presently determined but exceeds our current financial resources.
- We will incur the expense and delay inherent in seeking FDA and foreign regulatory approval of new products. For example, 12 months elapsed between the date we filed our application to market Hextend in the United States and the date on which our application was approved. Approximately 36 months elapsed between the date we filed our application for approval to market Hextend in Canada, and the date on which our application was approved, even though we did not have to conduct any additional clinical trials.
- A product that is approved may be subject to restrictions on use.
- The FDA can recall or withdraw approval of a product if problems arise.
- We will face similar regulatory issues in foreign countries.

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

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

- Government-imposed restrictions on the use of embryos or hES cells in the United States and abroad could generally constrain stem cell research, thereby limiting the market and demand for our products. During March 2009, President Obama lifted certain restrictions on federal funding of research involving the use of hES cells, and in accordance with President Obama's executive order, the National Institutes of Health 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 ("SCRO") committee. Many kinds of stem cell research, including the derivation of new hES cell lines, may only be conducted in California with the prior written approval of the SCRO. A SCRO could prohibit or impose restrictions on the research that we plan to do.
- The use of hES cells gives rise to religious, moral, and ethical issues regarding the appropriate means of obtaining the cells and the appropriate use and disposal of the cells. These considerations could lead to more restrictive government regulations or could generally constrain stem cell research, thereby limiting the market and demand for our products.

If we are unable to obtain and enforce patents and to protect our trade secrets, others could use our technology to compete with us, which could limit opportunities for us to generate revenues by licensing our technology and selling products

- Our success will depend in part on our ability to obtain and enforce patents and maintain trade secrets in the United States and in other countries. If we are unsuccessful in obtaining and enforcing patents, our competitors could use our technology and create products that compete with our products, without paying license fees or royalties to us.
- The preparation, filing, and prosecution of patent applications can be costly and time consuming. Our limited financial resources may not permit us to pursue patent protection of all of our technology and products throughout the world.
- Even if we are able to obtain issued patents covering our technology or products, we may have to incur substantial legal fees and other expenses to enforce our patent rights in order to protect our technology and products from infringing uses. We may not have the financial resources to finance the litigation required to preserve our patent and trade secret rights.

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. We may also file additional new patent applications in the future 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, 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 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 U.S. Patent and Trademark Office (the “PTO”) when more than one person files a patent application covering the same technology, or if someone wishes to challenge the validity of an issued patent. At the completion of the interference proceeding, the PTO will determine which competing applicant is entitled to the patent, or whether an issued patent is valid. Patent interference proceedings are complex, highly contested legal proceedings, and the PTO’s decision is subject to appeal. This means that if an interference proceeding arises with respect to any of our patent applications, we may experience significant expenses and delay in obtaining a patent, and if the outcome of the proceeding is unfavorable to us, the patent could be issued to a competitor rather than to us.
- Oppositions to the issuance of patents may be filed under European patent law and the patent laws of certain other countries. Like US PTO interference proceedings, these foreign proceedings can be very expensive to contest and can result in significant delays in obtaining a patent or can result in a denial of a patent application.

Our patents may not protect our products from competition

We have patents in the United States, Canada, the European Union countries, Australia, Israel, Russia, South Africa, South Korea, Japan, Hong Kong, and Singapore, and have filed patent applications in other foreign countries for our plasma volume expander products.

- We might not be able to obtain any additional patents, and any patents that we do obtain might not be comprehensive enough to provide us with meaningful patent protection.
- There will always be a risk that our competitors might be able to successfully challenge the validity or enforceability of any patent issued to us.
- In addition to interference proceedings, the U.S. PTO can reexamine 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 reexamination and may be lost if the outcome of the reexamination is unfavorable to us.

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 could be significantly and negatively affected. If our license rights were restricted or ultimately lost, we would not be able to continue to use the licensed technology in our business.

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

Success in selling our pharmaceutical products may depend in part on the extent to which health insurance companies, HMOs, and government health administration authorities such as Medicare and Medicaid will pay for the cost of the products and related treatment. Presently, most health insurance plans and HMOs will pay for Hextend when it is used in a surgical procedure that is covered by the plan. However, until we actually introduce a new product into the medical market place 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 Pertaining to Our Common Shares and Warrants

Before purchasing our common shares or warrants, investors should consider the price volatility of our shares and warrants and the fact that we do not pay dividends.

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

- The market price of our shares and warrants, like that of the shares of many biotechnology companies, has been highly volatile.
- The price of our shares and warrants may rise rapidly in response to certain events, such as the commencement of clinical trials of an experimental new drug, even though the outcome of those trials and the likelihood of ultimate FDA approval remain uncertain.
- Similarly, prices of our shares and warrants 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 and warrants.

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

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

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

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

The warrants cannot be exercised unless a registration statement is in effect under federal securities laws

A registration statement as defined under the Securities Act of 1933, as amended (the "Securities Act"), must be in effect in order for warrant holders to exercise their warrants. This means that we will have to periodically update our registration statement and prospectus by filing reports under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or by filing post-effective amendments to the registration statement of which this prospectus is a part. We intend to use our best efforts to keep our registration statement effective. However, if we are unable to do so for any reason, warrant holders will not be able to exercise their warrants, even if the market price of our common shares is then greater than the exercise price.

As long as our common shares are listed on the NYSE Amex, they will be exempt from registration or qualification under state securities laws. If our common shares are not exempt from state registration or qualification, most states will require us to obtain a permit, issued through an application for registration or qualification, and to maintain that permit in effect in order for warrant holders in the state to exercise their warrants. Many states will only issue a permit if their securities regulatory agency determines that the securities are a suitable investment for public investors in their state, considering a variety of factors, including the financial performance and financial condition of the company issuing the securities. Because we have a history of operating losses, some or all of those states may decline to issue the permit required to permit warrant holders in those states to exercise their warrants.

Securities analysts may not initiate coverage or continue to cover our common stock, and this may have a negative impact on our market price.

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

You may experience dilution of your ownership interests because of the future issuance of additional shares of our common shares and our preferred stock.

In the future, we may issue our authorized but previously unissued equity securities, resulting in the dilution of the ownership interests of our present shareholders. We are currently authorized to issue an aggregate of 76,000,000 shares of capital stock consisting of 75,000,000 common shares and 1,000,000 "blank check" preferred shares. As of December 10, 2009, there were: 33,646,867 common shares outstanding, 3,477,000 common shares reserved for issuance upon the exercise of outstanding options under our employee stock option plans, 125,000 common shares reserved for issuance upon the exercise of options issued outside of our employee stock option plan, 7,060,488 common shares reserved for issuance upon the exercise of the warrants described in this prospectus, and 5,224,649 common shares reserved for issuance upon the exercise of other warrants that were privately placed. We intend to register the privately placed warrants under the Securities Act and to apply to list those warrants (except for 100,000 warrants exercisable at a price of \$0.68 per share) on the NYSE Amex. No preferred shares are presently outstanding.

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

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

MARKET FOR OUR COMMON EQUITY AND WARRANTS

BioTime common shares and warrants have been traded on the NYSE Amex since October 30, 2009 under the symbols, BTIM and BTIM.WS, respectively. From July 15, 2005 until October 30, 2009, our common shares and warrants were traded on the OTC Bulletin Board (“OTCBB”).

The following table sets forth the range of high and low closing prices for the common shares for the fiscal years ended December 31, 2008 and 2009, based on transaction data as reported by the OTCBB:

Quarter Ended	High	Low
March 31, 2008	0.40	0.27
June 30, 2008	0.60	0.29
September 30, 2008	1.80	0.55
December 31, 2008	2.30	0.95
March 31, 2009	2.55	1.25
June 30, 2009	3.00	1.57
September 30, 2009	6.40	2.30
December 31, 2009	6.35	3.59

The following table sets forth the range of high and low closing prices for the warrants for the fiscal years ended December 31, 2008 and 2009, based on transaction data as reported by the OTCBB:

Quarter Ended	High	Low
March 31, 2008	0.08	0.06
June 30, 2008	0.07	0.06
September 30, 2008	0.55	0.07
December 31, 2008	0.51	0.23
March 31, 2009	0.68	0.30
June 30, 2009	0.90	0.30
September 30, 2009	4.29	0.65
December 31, 2009	4.36	1.695

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

USE OF PROCEEDS

The cash proceeds receivable from the exercise of the warrants included in this prospectus will be \$13,220,976, if 3,000,000 warrants are exercised in the Discount Offer at \$1.70 per share, and the remaining 4,060,488 warrants are exercised at the regular exercise price of \$2.00 per share. We intend to use the proceeds from the exercise of the warrants as shown in the following table.

Application	Estimated Amount	Percent of Total
Research and Development	\$ 8,500,000	64%
Working Capital	\$ 4,720,976	36%
Total	\$ 13,220,976	100%

Research and Development. We plan to contribute at least \$2,250,000 of the proceeds to our subsidiary OncoCyte Corporation for use in its cancer therapy stem cell research program. Other proceeds allocated to research and development may be used to develop other new stem cell products and technology and to acquire new stem cell products and technology through licenses or similar agreements from other companies. We may also use proceeds for additional clinical trials of PentaLyte and to fund the cost of seeking regulatory approval of PentaLyte. We are also considering a number of opportunities to enter new market segments that may complement our current product develop programs, and a portion of the proceeds may be used for those purposes.

Working Capital. We intend to apply the balance of the proceeds from the exercise of the warrants to working capital and general corporate purposes. We will have broad discretion with respect to the use of proceeds retained as working capital. The proceeds may be used to defray overhead expenses and for future opportunities and contingencies that may arise. We expect that our general and administrative expenses will increase as we achieve progress in developing products and bringing them to market. For example, a portion of the proceeds allocated to working capital may be used to pay the salaries, benefits, and fees to employees and consultants who assist in the development of new products or the preparation of applications to the FDA and foreign regulatory agencies and patent applications. Proceeds allocated to working capital also may be reallocated to research and development and may be used to pay the costs of developing new products, obtaining new technology, or conducting clinical trials of our products.

The preceding table represents only an estimate of the allocation of the net proceeds of the exercise of the warrants based upon the current state of our product development program. The development of new medical products and technologies often involves complications, delays, and costs that cannot be predicted, and may cause us to make a reallocation of proceeds among the categories shown above or to other uses. We may need to raise additional capital to pay operating expenses until such time as we are able to generate sufficient revenues from product sales, royalties, and license fees.

Until used, the net proceeds from the exercise of the warrants will be invested in certificates of deposit, United States government securities, or other high quality, short-term, interest-bearing investments.

Warrants

As of December 10, 2009, 12,185,137 warrants were issued and outstanding, of which 7,060,488 are covered by this prospectus, and 5,224,649 were privately placed. The privately placed warrants include 5,124,649 which are exercisable at a price of \$2.00 per share and will expire on October 31, 2010 and 100,000 which are exercisable at a price of \$0.68 per share and will expire on July 30, 2013. The privately placed warrants are not covered by this prospectus and may not be exercised in the Discount Offer. However, we plan to register the privately placed warrants under the Securities Act at a future date and we plan to apply to list those warrants (except for 100,000 warrants exercisable at a price of \$0.68 per share) on the NYSE Amex.

Each full warrant entitles the holder to purchase one common share at a price of \$2.00 per share. 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. The warrants will expire on October 31, 2010 and may not be exercised after that date.

THE DISCOUNT OFFER AND DESCRIPTION OF THE WARRANTS

Discount Offer

We are offering holders of those warrants the opportunity to exercise at least a portion of their warrants at a discounted exercise price for a limited period of time. Until the Discount Offer Expiration Time, we will allow up to 3,000,000 warrants to be exercised at an exercise price of \$1.70 per share. This represents a discount of \$0.30 per share from the regular exercise price of \$2.00 per share. The Discount Offer Expiration Time is 5:00 p.m., New York time, on _____, 2010.

All exercises of the warrants at the discounted exercise price will be subject to proration if more than 3,000,000 warrants are exercised in the Discount Offer. All warrants and exercise price funds received by the warrant agent, American Stock Transfer & Trust Company, will be held until approximately ___ business days after the Discount Offer Expiration Time, at which time the warrant agent will determine the total number of warrants received that have been exercised properly in the Discount Offer. If that number exceeds 3,000,000, the warrant agent will allocate common shares among the warrant holders on a pro rata basis, based upon the total number of properly executed warrants received by the warrant agent for exercise in the Discount Offer.

The warrant agent will deposit all checks and other funds received by it for the exercise of warrants in the Discount Offer into a segregated interest-bearing account of BioTime pending proration and distribution of common shares. The interest earned on the account will belong to BioTime. Any exercise price funds received by the warrant agent in excess of the aggregate exercise price of the common shares allocated to a warrant holder in the Discounted Offer will be returned to the warrant holder without interest or deduction.

The members of our Board of Directors who own warrants or control warrants through affiliates have agreed to give the other warrant holders priority in exercising warrants in the Discount Offer. If the warrant agent receives more than 3,000,000 warrants for exercise in the Discount Offer, common shares will first be allocated among the warrant holders who are not directors or affiliates of our directors, so that our directors and their affiliates will be allowed to exercise warrants in the Discount Offer only to the extent that doing so does not reduce the number of warrants that may be exercised by other warrant holders.

If a warrant holder exercises fewer than all of the warrants evidenced by their warrant certificate, or if the exercise of their warrant is subject to proration, the warrant agent will also deliver to the warrant holder a new warrant certificate for the unexercised portion of their warrant certificate. The warrant agent expects that certificates for shares issued in the Discount Offer will be mailed to the exercising warrant holders approximately ___ business days after the proration period.

In our sole discretion, we may: (a) terminate the Discount Offer; (b) extend the Discount Offer Expiration Time to a later date and time; or (c) amend or modify the terms of the Discount Offer.

During and after the Discount Offer, warrant holders who desire to exercise their warrants and receive common shares immediately, without proration, will be able to exercise their warrants at the regular exercise price of \$2.00 per share.

How to Exercise Warrants

In order to exercise your warrants you must do all of the following:

- Fill in and sign the purchase form that appears on the reverse side of the warrant certificate;
- Deliver the completed and signed warrant certificate to the warrant agent with your payment in full for the common shares you wish to purchase.
- The method of making payment for your shares is described below under “Payment for Shares.”
- In order to participate in the Discount Offer, properly completed and executed warrant certificates must be received by the warrant agent at the address set forth below prior to the Discount Offer Expiration Time. Otherwise, warrants may be exercised at the regular exercise price of \$2.00 per share until the warrants expire on October 31, 2010.
- Warrants may also be exercised through a broker, who may charge you a servicing fee.

You should send your warrant certificate, with the purchase form completed and signed, accompanied by payment of the exercise price, to American Stock Transfer & Trust Company, the warrant agent, by one of the methods described below:

(1) By hand:

American Stock Transfer & Trust Company
59 Maiden Lane, Plaza Level
New York, New York 10038

(2) By mail, express mail or overnight courier:

American Stock Transfer & Trust Company
Exchanges and Tenders
59 Maiden Lane
New York, New York 10038

Do not send warrant certificates to BioTime.

If your warrants are held in the name of Cede & Co. as nominee for The Depository Trust Company, or in the name of any other depository or nominee, you should contact your broker-dealer or other financial institution that holds your warrants in order to exercise your warrants.

A warrant will be deemed exercised, subject to proration, by the warrant agent when payment, together with a properly completed and executed warrant certificate, is received by the warrant agent at its Exchanges and Tenders Department.

If you do not indicate the number of common shares you are purchasing through the exercise of your warrants, then you will be deemed to have exercised your warrants to purchase the maximum number of common shares determined by dividing the total exercise price you paid by the exercise price per share, but not in excess of the maximum number of warrants you deliver to the warrant agent.

All questions concerning the timeliness, validity, form and eligibility of any exercise of warrants will be determined by BioTime. Our determination will be final and binding. We, in our sole discretion, may waive any defect or irregularity, or may permit any defect or irregularity to be corrected, within such time as we may determine. Neither BioTime nor the warrant agent will be under any duty or obligation to give any notification or to permit the cure of any defect or irregularity in connection with the submission of any warrant certificate, the exercise or attempt to exercise any warrant, or the payment of the exercise price prior to the Discount Offer Expiration Time or the expiration of the warrant, as the case may be. Warrants will not be deemed to have been exercised until all defects in the exercise have been waived or cured to our satisfaction, by the time we determine, and in our discretion.

Payment of the Exercise Price

If you wish to exercise your warrants you may choose between the following methods of payment:

1. You may send to the warrant agent full payment for all of the shares you wish to acquire through the exercise of your warrants. Make sure that your payment is accompanied by your warrant certificate with the purchase form completed and signed. The payment and properly completed and executed warrant certificate must be received by the warrant agent no later than (a) the Discount Offer Expiration Time in order for you to purchase common shares in the Discount Offer, or (b) 5:00 p.m., New York City time, on October 31, 2010 in order for you to purchase common shares prior to the expiration of your warrants otherwise than in the Discount Offer.

To be accepted, a payment pursuant to this method must be made in the following manner:

- The payment must be in U.S. dollars;
- The payment must be by wire transfer, money order, or check drawn on a bank located in the United States;
- The payment must be payable to the warrant agent, American Stock Transfer & Trust Company; and
- The payment must accompany a properly completed and executed warrant certificate.

Wire transfers should be directed to American Stock Transfer & Trust Company, Warrant agent, JP Morgan Chase Bank WIRE CLEARING ACCOUNT ABA #021000021, Account 323005225, Attention: Reorg. Dept.

2. Alternatively, **for purposes of the Discount Offer only**, an exercise will be accepted by the warrant agent if, prior to the Discount Offer Expiration Time, the warrant agent has received a notice of guaranteed delivery by facsimile telecopy or otherwise from a bank, a trust company, or a New York Stock Exchange member guaranteeing delivery of (1) payment of the exercise price for the shares 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 Discount Offer Expiration Time. The warrant agent will not honor a notice of guaranteed delivery unless a properly completed and executed warrant certificate and full payment for the shares is received by the warrant agent by the close of business on the third business day after the Discount Offer Expiration Time.

The warrant agent will deposit all checks received by it for the purchase of shares in the Discount Offer into a segregated interest-bearing account of BioTime pending proration and distribution of shares. The interest earned on the account will belong to BioTime.

You will not be allowed to rescind your purchase after the warrant agent has received payment either by means of a notice of guaranteed delivery or a wire transfer, check or money order.

Nominees, such as brokers, trustees or depositories for securities, who hold warrants for the account of others should notify the respective beneficial owners of the warrants as soon as possible to ascertain the beneficial owners' intentions and to obtain instructions with respect to the warrants during the Discount Offer. If the beneficial owner so instructs, the nominee should complete the warrant certificate and submit it to the warrant agent with the proper payment. In addition, beneficial owners of warrants held through a nominee should contact the nominee and request the nominee to effect transactions in accordance with the beneficial owner's instructions.

Redemption Provisions

We may redeem the warrants by paying \$.05 per warrant if the closing price of the common shares on the NYSE Amex or any other national securities exchange or the Nasdaq Stock Market exceeds 200% of the exercise price of the warrants for any 20 consecutive trading days before we send a notice of redemption to the warrant holders (the "Trigger Period"). We will give the warrant holders at least 20 days written notice of the redemption, setting the redemption date, and the warrant holders may exercise the warrants prior to the redemption date. The warrants may not be exercised after the last business day prior to the redemption date.

The redemption date will abate, and the notice of redemption will be of no effect, if the closing price or average bid price of our common shares does not equal or exceed 120% of the exercise price of the warrants on the redemption date and each of the five trading days immediately preceding the redemption date. However, we will have the right to redeem the warrants at a future date if the market price of the common shares again exceeds 200% of the exercise price for 20 consecutive trading days, as described above. In addition, we may not redeem the warrants unless a registration statement with respect to the warrants and underlying common shares is effective under the Securities Act during the Trigger Period and during the 20 day period ending on the redemption date.

Transfer Agent, warrant agent, and Registrar

The transfer agent, warrant agent, and registrar for the common shares and warrants is American Stock Transfer and Trust Company, 59 Maiden Lane, New York, New York 10038.

DESCRIPTION OF COMMON SHARES AND PREFERRED SHARES

Common Shares

Our Articles of Incorporation currently authorize the issuance of up to 75,000,000 common shares, no par value, of which 33,646,867 shares were outstanding at December 10, 2009. As of December 2, 2009 our common shares were held by approximately 8,981 persons based upon the share position listings. Each holder of record is entitled to one vote for each outstanding common share owned by him on every matter properly submitted to the shareholders for their vote.

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.

Preferred Shares

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

RESALE OF SHARES AND WARRANTS

This prospectus relates to 3,963,140 warrants, and common shares that may be issued upon the exercise of the warrants, that we issued in our subscription rights offers that were completed during January 2004 and December 2005, and 2,694,282 common shares and 3,097,348 warrants held by certain persons or affiliates of persons who acted as “Guarantors” or “Participating Debenture Holders” in the subscription rights offers. The Guarantors and Participating Debenture Holders for whose account warrants or common shares are being registered through this prospectus are sometimes referred to in this prospectus as “selling security holders.”

Guarantors and Participating Debenture Holders

During December 2005, we completed a subscription rights offer through which we sold 4,467,863 common shares and warrants to persons who exercised subscription rights and to certain persons who acted as Guarantors under a Standby Purchase Agreement. We also issued 600,000 warrants to the Guarantors in consideration of their agreement to acquire the units that remained unsold at the conclusion of the rights offer, excluding units reserved to fill over-subscriptions.

During January 2004, we completed a subscription rights offer through which we sold 2,560,303 common shares and 1,280,073 warrants to persons who exercised subscription rights. Following the completion of the 2004 rights offer, we sold an additional 428,571 common shares and 214,284 warrants under a Standby Purchase Agreement to certain persons who acted as Guarantors of the rights offer or who were assignees of one of the Guarantors. We also issued 250,000 warrants to the Guarantors and 500,000 warrants to person who acted as Participating Debenture Holders under the Standby Purchase Agreement in consideration of their agreement to acquire any units that might remain unsold at the conclusion of the rights offer, excluding units reserved to fill over-subscriptions.

During February 2004, we issued a total of 1,071,428 common shares and 535,712 warrants in exchange for \$1,500,000 of debentures held by certain persons who acted as Participating Debenture Holders under the Standby Purchase Agreement for the 2004 rights offer.

Plan of Distribution

The selling security holders have advised us that they may hold their warrants and common shares for investment purposes, or they may sell warrants and common shares from time to time on the NYSE Amex at prevailing market prices, or at prices related to the prevailing market price, or in privately negotiated transactions. The selling security holders also may sell common shares acquired through the exercise of their warrants, or they may hold those shares for investment purposes and sell them at later date.

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

The selling security holders have advised us that during the time that they may be engaged in a distribution of their common shares and warrants they will (a) not engage in any stabilization activity in connection with our securities, (b) cause to be furnished to each broker through whom their shares or warrants may be offered the number of copies of this prospectus required by the broker, and (c) not bid for or purchase any of our securities or rights to acquire our securities, or attempt to induce any person do so, other than as permitted under the Exchange Act. The selling security holders and any broker-dealers who participate in the sale of their common shares and warrants may be deemed to be “underwriters” as defined in the Securities Act. Any commissions paid or any discounts or concessions allowed to any broker-dealers in connection with the sale of the common shares and warrants, and any profits received on the resale of any shares and warrants purchased by broker-dealers as principals, may be deemed to be underwriting discounts and commissions under the Securities Act.

The following table shows the number of our common shares beneficially owned by the selling security holders prior to this offering, the maximum number of common shares that may be sold by them through this prospectus, and the amount and percentage of the outstanding common shares that will be owned by them after the completion of this offering assuming all of the shares covered by this prospectus are sold.

Name	Shares Owned ⁽¹⁾	Shares Offered ⁽¹⁾	Shares Owned After Offering ⁽¹⁾	Percentage of Outstanding Common Shares Owned After Offering ⁽¹⁾
Broadwood Partners, L.P.	4,669,249 ⁽²⁾	1,103,635	3,565,614 ⁽²⁾	10.60%
Goren Brothers, L.P.	349,484	97,402	252,082	*
Alfred D. Kingsley	4,953,432 ⁽³⁾	1,190,305	3,763,127 ⁽³⁾	11.18%
Greenway Partners, LP	550,287 ⁽⁴⁾	302,940	247,347 ⁽⁴⁾	*

* Less than 1%

(1) Does not include shares issuable upon the exercise of the warrants offered by this prospectus.

(2) Does not include shares that may be acquired upon the exercise of warrants owned by Broadwood Partners, L.P. Does not include shares owned or that may be acquired upon the exercise of certain warrants and options owned by Neal C. Bradsher. Broadwood Capital, Inc. is the general partner of Broadwood Partners, L.P., and Neal C. Bradsher is the President of Broadwood Capital, Inc. Mr. Bradsher and Broadwood Capital, Inc. may be deemed to beneficially own the shares that Broadwood Partners, L.P. owns.

(3) Does not include shares that may be acquired upon the exercise of certain options and warrants owned solely by Mr. Kingsley, or shares owned or that may be acquired upon the exercise of warrants by Greenbelt Corp. and Greenway Partners, L.P.

(4) Does not include shares that may be acquired upon the exercise of certain warrants owned solely by Greenway Partners, LP. Does not include shares owned or that may be acquired upon the exercise of warrants owned by Alfred D. Kingsley, Greenbelt Corp., or Gary K. Duberstein.

The following table shows the number of warrants beneficially owned by the selling security holders prior to this offering, the maximum number of warrants that may be sold by them through this prospectus, and the amount and percentage of the outstanding warrants that will be owned by them after the completion of this offering assuming all of the warrants covered by this prospectus are sold.

Name	Warrants Owned	Warrants Offered	Warrants Owned After Offering	Percentage of Outstanding Warrants Owned After Offering
Broadwood Partners, LP	1,377,393 ⁽¹⁾	1,263,808	113,585 ⁽¹⁾	1.61%
Cyndel & Co.	89,999	89,999	0	0%
Goren Brothers, L.P.	103,530	94,155	9,375	*
Greenway Partners, L.P.	347,580 ⁽²⁾	304,951	42,629 ⁽²⁾	*
Alfred D. Kingsley	2,270,689 ⁽⁴⁾	1,344,435	926,254 ⁽⁴⁾	13.12%

*Less than 1%.

(1) Does not include 5,550 warrants owned by Neal Bradsher. Broadwood Capital, Inc. is the general partner of Broadwood Partners, L.P., and Neal C. Bradsher is the President of Broadwood Capital, Inc. Mr. Bradsher and Broadwood Capital, Inc. may be deemed to beneficially own the shares that Broadwood Partners, L.P. owns.

(2) Does not include warrants owned by Alfred D. Kingsley or Greenbelt Corp.

(3) Includes only the ILC Warrant.

(4) Does not include warrants owned by Greenbelt Corp. or Greenway Partners, LP.

LEGAL MATTERS

The validity of the rights, common shares, and warrants will be passed upon for BioTime by Lippenberger, Thompson, Welch, Soroko & Gilbert LLP, San Francisco and Corte Madera, California. A member of Lippenberger, Thompson, Welch, Soroko & Gilbert LLP holds an option to purchase 20,000 BioTime common shares.

EXPERTS

The financial statements incorporated in this prospectus by reference from BioTime's Annual Report on Form 10-K for the years ended December 31, 2008 and 2007 have been audited by Rothstein, Kass & Company, P.C. independent registered public accounting firm, to the extent and for the periods set forth in their report incorporated herein by reference, and are incorporated herein in reliance upon such report given upon the authority of said firm as experts in accounting and auditing.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

Our Annual Report on Form 10-K for the fiscal year ended December 31, 2008, Quarterly Reports on Form 10-Q for the periods ended March 31, 2009, June 30, 2009, and September 30, 2009, Current Reports on Form 8-K filed by us with the Commission on March 30, 2009; April 17, 2009; April 30, 2009; May 8, 2009; May 14, 2009; July 7, 2009; July 9, 2009; July 13, 2009; August 5, 2009; August 17, 2009; August 25, 2009; September 23, 2009; October 16, 2009; October 20, 2009; October 23, 2009; and November 25, 2009 are hereby incorporated into this prospectus by reference. All other documents subsequently filed by us pursuant to Sections 13(a), 13(c), 14, or 15(d) of the Securities Exchange Act of 1934, as amended, prior to the termination of the offering covered by this prospectus shall be deemed incorporated into this prospectus by reference. A description of the common shares and warrants contained in a Registration Statement on Form 8-A filed under the Securities Exchange Act of 1934, as amended, is also incorporated into this prospectus by reference. We will provide without charge to each person, including any beneficial owner, to whom a prospectus is delivered, upon written or oral request of such person, a copy of any and all of the information that has been incorporated by reference but not delivered with this prospectus. Such requests may be addressed to the Secretary of BioTime at 1301 Harbor Bay Parkway, Suite 100, California 94502; Telephone: (510) 521-3390.

WHERE YOU CAN FIND MORE INFORMATION

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

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

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

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

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



7,060,488 Warrants

TABLE OF CONTENTS

Prospectus Summary	4
Risk Factors	11
Market For Our Common Equity And Warrants	21
Use of Proceeds	22
The Discount Offer and Description of the Warrant	23
Description of Common Shares and Preferred Shares	28
Resale of Shares and Warrants	29
Legal Matters	32
Experts	32
Where You Can Find More Information	32

7,060,488 Common Shares Issuable Upon Exercise of Warrants

2,694,282 Common Shares

PROSPECTUS

January __, 2010

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 15. Indemnification of Directors and Officers.

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

Item 16. Exhibits and Financial Statement Schedules.

<u>Exhibit Numbers</u>	<u>Description</u>
4.1	Specimen of Common Share Certificate ⁺
4.2	Form of Warrant Agreement between BioTime, Inc. and American Stock Transfer & Trust Company ⁺⁺
4.3	Form of Amendment to Warrant Agreement between BioTime, Inc. and American Stock Transfer & Trust Company. ⁺⁺⁺
4.4	Form of Amendment to Warrant Agreement between BioTime, Inc. and American Stock Transfer & Trust Company.*
4.5	Form of Warrant ⁺⁺⁺
5.1	Opinion of Counsel [§]
23.1	Consent of Rothstein, Kass & Company, P.C.*

⁺ 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.

++ Incorporated by reference to Registration Statement on Form S-2, File Number 333-109442, filed with the Securities and Exchange Commission on October 3, 2003, and Amendment No.1 thereto filed with the Securities and Exchange Commission on November 13, 2003.

+++Incorporated by reference to Registration Statement on Form S-2, File Number 333-128083, filed with the Securities and Exchange Commission on September 2, 2005.

§ Previously filed.

* Filed herewith.

Item 17. Undertakings.

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

The undersigned undertakes:

- (1) To file during any period in which offers or sales are being made, a post-effective amendment to this registration statement:
 - (i) To include any prospectus required by section 10(a)(3) of the Securities Act of 1933;
 - (ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement;
 - (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.
- (2) That for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
- (5) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser each prospectus filed pursuant to Rule 424(b) shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.
- (6) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities:

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

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

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

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

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

Amendment of Warrant Agreement

Dated as of _____, 2010

THIS AMENDMENT OF WARRANT AGREEMENT ("Amendment"), dated as of _____, 2010, between BioTime, Inc., a California corporation (the "Company"), and American Stock Transfer & Trust Company ("Warrant Agent"), for the benefit of each Holder, amends that certain Warrant Agreement dated December 9, 2003, as amended by that certain Amendment of Warrant Agreement dated October 27, 2005 (the "Agreement").

The Company proposes to permit Holders to exercise up to 3,000,000 Warrants, in the aggregate, at a discounted exercise price of \$1.70 per Warrant Share until 5:00 p.m. on _____, 2010.

In consideration of the foregoing and for the purpose of defining the terms and provisions of the Warrants and the respective rights and obligations thereunder of the Company and each Holder, the Company agrees that the Agreement is amended by as follows:

Section 1. Definitions. Unless otherwise defined in this Amendment, all capitalized terms have the meaning ascribed to them in the Agreement.

(a) "Discount Offer" means the Company's offer to permit up to 3,000,000 Warrants to be exercised by Holders at the Discount Offer Warrant Price during the Discount Offer Period.

(b) "Discount Offer Expiration Date" means _____, 2010 or such other date as the Company may determine.

(c) "Discount Offer Period" means the period commencing on _____, 2010 and ending at 5:00 p.m. New York time on the Discount Offer Expiration Date.

(d) "Discount Offer Warrant Price" means \$1.70 per Warrant Share.

(e) "Prospectus" means the Company's prospectus, dated _____, 2010, pertaining to the Warrants, as the same may from time to time be supplemented or amended.

Section 2. Discount Offer. The following provisions shall apply with respect to the exercise of Warrants during the Discount Offer Period only.

(a) Discount Offer Warrant Price. Subject to any adjustments required by Section 10, during the Discount Offer Period the Warrant Price shall be the Discount Offer Warrant Price.

(b) Maximum Number of Warrant Shares Issuable at Discount Warrant Price; Proration. During the Discount Offer Period, Holders may exercise, in the aggregate, up to a total of 3,000,000 Warrants to purchase, in the aggregate, up to 3,000,000 Warrant Shares, at the Discount Offer Warrant Price. All exercises of the Warrants at the Discount Offer Warrant Price will be subject to proration if more than 3,000,000 Warrants are exercised in the Discount Offer. All Warrants received by the Warrant Agent for exercise in the Discount Offer will be held by the Warrant Agent until the Warrant Agent determines the total number of Warrants received that have been exercised properly in the Discount Offer Period. If the total number of Warrants that have been exercised properly in the Discount Offer Period exceeds 3,000,000, the Warrant Agent will allocate 3,000,000 Warrant Shares among the Holders who properly exercised Warrants in the Discount Offer. Such allocation shall be made on a pro rata basis, based upon the number of Warrants properly exercised by each Holder and the total number of Warrants properly exercised by all Holders in the Discount Offer. The Warrant Agent will deposit all checks and other funds received by it for the payment of the Discount Offer Warrant Price in the Discount Offer into a segregated interest-bearing account of the Company pending proration and distribution of Warrant Shares. The interest earned on the account will belong to the Company. Any funds received by the Warrant Agent from a Holder in excess of the aggregate Discount Offer Warrant Price payable for the Warrants Shares allocated to the Holder in the Discount Offer will be returned to the Holder without interest or deduction.

(c) Notice of Guaranteed Delivery. A Warrant will be accepted for exercise during the Discount Offer Period if prior to 5:00 p.m. New York City time on the Discount Offer Expiration Date the Warrant Agent has received a notice of guaranteed delivery by facsimile (telecopy) or otherwise from a bank, trust company, or New York Stock Exchange member guaranteeing delivery of (i) payment of the full Discount Offer Warrant Price for the Warrant Shares to be purchased through exercise of the Warrants, and (ii) a properly completed and executed Warrant Certificate. The Warrant Agent will not honor a notice of guaranteed delivery unless a properly completed and executed Warrant Certificate and full payment for the Warrant Shares is received by the Warrant Agent by the close of business on the third business day after the Discount Offer Expiration Date.

(d) Number of Warrants Deemed Exercised. If during the Discount Offer Period a Holder does not indicate the number of Warrant Shares being purchased through the exercise of Warrants, or does not deliver full payment of the Discount Offer Warrant Price for the number of Warrant Shares indicated as being purchased through the exercise of Warrants, then such Holder will be deemed to have exercised Warrants to purchase the maximum number of Warrant Shares determined by dividing (x) the total Discount Offer Warrant Price so paid, by (y) the Discount Offer Warrant Price per Warrant Share; provided, that such number shall not exceed the maximum number of Warrant Shares that may be purchased through the exercise of the Warrant Certificate delivered to the Warrant Agent.

(e) Payment by Wire Transfer. The Warrant Agent may accept payment by wire transfer if arrangements satisfactory to the Warrant Agent and the Company are made by the Holder.

(f) Termination; Extension; Modification of Discount Offer. The Company may, in its sole discretion, upon notice to the Warrant Agent: (a) terminate the Discount Offer; (b) extend the Discount Offer Expiration Date to a later date; or (c) amend or modify the terms of the Discount Offer.

Section 3. Delivery of Prospectus and Other Documents. The Warrant Agent shall deliver a Prospectus, a letter from the President of the Company to the Holders, a return envelope addressed to the Warrant Agent, and such other documents and information as the Company may provide concerning the Discount Offer. The Warrant Agent shall also provide copies of the Prospectus and other documents prepared by the Company to Holders and other persons upon request.

(a) The Company will provide the Warrant Agent with a sufficient number of Prospectuses as the Warrant Agent may require.

(b) The Company has provided to the Warrant Agent the following documents that the Warrant Agent shall deliver to brokers, dealers, commercial banks, trust companies and other nominee holders of Warrants: (i) a letter to Brokers, Dealers, Commercial Banks, Trust Companies and Other Nominees; (ii) a letter to the clients of nominee holders described in clause (i); and (iii) a Notice of Guaranteed Delivery.

Section 4. Notices; Principal Office. Any notice pursuant to the Agreement, as amended hereby, by the Company or by any Holder to the Warrant Agent, or by the Warrant Agent or by any Holder to the Company, shall be in writing and shall be delivered in person, or mailed first class, postage prepaid (a) to the Company, at its office, Attention: Secretary or (b) to the Warrant Agent, at its offices as designated at the time the Warrant Agent is appointed. The address of the principal office of the Company is 1301 Harbor Bay Parkway, Suite 100, Alameda, California 94502. Any notice mailed pursuant to the Agreement, as amended hereby, by the Company or the Warrant Agent to the Holders shall be in writing and shall be mailed first class, postage prepaid, or otherwise delivered, to such Holders at their respective addresses on the books of the Company or the Warrant Agent, as the case may be. Each party hereto and any Holder may from time to time change the address to which notices to it are to be delivered or mailed hereunder by notice to the other party.

Section 5. Effect of Amendment. Except as amended hereby, all provisions of the Agreement shall remain in full force and effect.

IN WITNESS WHEREOF, the parties hereto have caused this Amendment to be duly executed, all as of the day and year first above written.

BIOTIME, INC.

By: _____
Name: _____
Title: _____

Attest:

By: _____
Name: Judith Segall
Title: Secretary

AMERICAN STOCK TRANSFER & TRUST COMPANY

By: _____
Name: _____
Title: _____

Certified
Public
Accountants

Rothstein, Kass & Company, P.C.
4 Becker Farm Road
Roseland, NJ 07068
tel 973.994.6666
fax 973.994.0337
www.rkco.com

Beverly Hills
Dallas
Denver
Grand Cayman
Irvine
New York
Roseland
San Francisco
Walnut Creek



CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in Post Effective Amendment No. 5 to Registration Statement on Form S-3 to Form S-2, (Registration Nos.333-128083 and 333-109442), of BioTime, Inc. and Subsidiary, (collectively, the “Company”) and of: (i) our report dated March 17, 2009, with respect to the audit of the consolidated balance sheets of the Company as of December 31, 2008 and 2007, and the related consolidated statements of operations, stockholders deficit, and cash flows for the years then ended, which report appears in the Annual Report on Form 10-K of the Company for the year ended December 31, 2008, and (ii) to the reference to our firm under the caption “Experts” in the prospectus.

/s/ Rothstein, Kass & Company, P.C.

Roseland, New Jersey
January 6, 2010
