BIOTIME INC
Form S-3
May 14, 2010

As filed with the Securities and Exchange Commission on May 14, 2010

Registration No. _____

SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM S-3

REGISTRATION STATEMENT UNDER
THE SECURITIES ACT OF 1933

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

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

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

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act,

please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. o

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

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

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of “large accelerated filer,” “accelerated filer” and “smaller reporting company” in Rule 12b-2 of the Securities Exchange Act of 1934. (Check one):

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

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Amount to be Registered	Proposed Maximum Offering Price Per Unit (1)	Proposed Maximum Aggregate Offering Price (1)	Amount of Registration Fee
Common Shares, no par value	4,525,000	$ 6.90	$ 31,222,500	$ 2,226.16
Common Shares, no par value (2)	724,649	--	--	--
Warrants to Purchase Common Shares	724,649	$ 5.01	$ 3,630,492	$ 258.85
Common Shares, no par value (3)	100,000	$ 6.90	$ 690,000	$ 49.20
Warrants to Purchase Common Shares	100,000	--	--	--
Common Shares, no par value (4)	125,000	$ 6.90	$ 862,500	$ 61.50
Options to Purchase Common Shares	125,000	--	--	--
Total Registration Fee				$ 2,595.71

(1) Estimated solely for the purpose of calculating the registration fee.
(2) Issuable upon the exercise of Warrants
(3) Issuable upon the exercise of Warrants

(4) Issuable upon the exercise of the Options

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.

This Registration Statement relates to the registration statements under Commission file numbers 333-109442 and 333-128083

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

Subject to Completion, Dated May 14, 2010

PROSPECTUS

BIOTIME, INC.

7,674,801 Warrants
7,094,282 Common Shares
7,799,801 Common Shares Issuable Upon Exercise of Warrants and Options

We are offering the holders of all of our common share purchase warrants that expire on October 31, 2010 the opportunity to exercise 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 the warrants to be exercised at an exercise price of $1.818 per share. This represents a discount of $0.182 per share from the regular exercise price of $2.00 per share. In this prospectus, the term "discount offer" means the opportunity of warrant holders to exercise their warrants at the discounted price of $1.818 per share. After the discount offer expires, warrant holders who continue to hold warrants will be able to exercise their remaining warrants at the regular exercise price of $2.00 per share until the warrants expire on October 31, 2010.

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 May 11, 2010 was $7.70, and the closing price of the warrants on the NYSE Amex on May 11, 2010 was $5.69.

The warrants that are subject to the discount offer include 6,850,152 warrants that we issued in connection with our subscription rights offers that were completed during January 2004 and December 2005, and 724,649 warrants that we issued in private transactions. The 7,574,801 common shares issuable upon the exercise of the warrants are also included in this prospectus.

Some of the warrants that are subject to the discount offer are held by certain selling security holders, as discussed elsewhere in this prospectus. This prospectus also relates to outstanding common shares and options, and the common shares that may be issued upon the exercise of the options, held by some of the selling security holders. In addition, this prospectus relates to another warrant, and 100,000 common shares that may be issued upon the exercise of that warrant at an exercise price of $0.68 per share, held by a non-profit organization (the “ILC Warrant”). References in this prospectus to the warrants exclude the ILC Warrant, which will not be listed on a national securities exchange, is not expected to be traded in the over-the-counter market, and is not subject to the discount offer described in this prospectus. We will receive the exercise price of the warrants, the ILC Warrant, and the options when those securities are exercised. However, all of the net proceeds from the sale of common shares, warrants, and ILC Warrant by the selling security holders will belong to the selling security holders and not to us.

The selling security holders named in this prospectus and their designees may sell their common shares and warrants from time to time on the NYSE Amex at prevailing market prices, or in privately negotiated transactions, and they will bear all broker-dealer fees, commissions, and discounts payable in connection with the sale of their shares and warrants.

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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 May __, 2010

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PROSPECTUS SUMMARY

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

BioTime, Inc.

Overview

We are a biotechnology company engaged in two areas of biomedical research and product development. Our first business 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 business segment is regenerative medicine. Regenerative medicine refers to therapies based on human embryonic stem (“hES”) cell and induced pluripotent stem (“iPS”) 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.

The initial focus of our efforts in the regenerative medicine field has been the development and sale of advanced human stem cell products and technology that can be used by researchers at universities and other institutions, by companies in the bioscience and biopharmaceutical industries, and by other companies that provide research products to companies in those industries. Research-only products generally can be marketed without approval by regulatory agencies such as the United States Food and Drug Administration (FDA), and are therefore relatively near-term business opportunities when compared to therapeutic products. These products are currently being marketed through our subsidiaries, Embryome Sciences, Inc., BioTime Asia, Limited, and our recently acquired subsidiary ES Cell International Pte. Ltd.

We have also initiated development programs for human therapeutic applications of hES and iPS cells, focused primarily on the treatment of cancer, ophthalmologic, skin, musculo-skeletal system, and hematologic diseases. Cancer research and development programs will be conducted in the United States by our subsidiary OncoCyte Corporation, while BioTime Asia, Limited, a subsidiary formed as a Hong Kong corporation, will conduct research and development programs in the People’s Republic of China for the treatment of cancer and other diseases.

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On May 3, 2010, we acquired ES Cell International Pte Ltd, a Singapore private limited company ("ESI"). Established in 2000, ESI has been at the forefront of advances in hES technology, being one of the earliest distributors of hES cell lines to the research community. More recently, ESI has produced an additional six new clinical-grade human embryonic stem cell lines that were derived following principles of good manufacturing practice ("GMP") and currently offers them for potential use in therapeutic product development.

During 2009, we were awarded a $4,721,706 grant from the California Institute of Regenerative Medicine ("CIRM") 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 for human therapeutic uses.

Human embryonic stem cell technology is approximately 10 years old and evolving rapidly. As a result, we cannot accurately forecast the amount of revenue that the new products we offer might generate.

Our principal office is located at 1301 Harbor Bay Parkway, Suite 100, Alameda, California 94502. Our telephone number is (510) 521-3390.

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.

Stem Cells and Products for Regenerative Medicine Research

We are developing products and technology for use in the emerging field of regenerative medicine. Regenerative medicine refers to therapies based on hES cell and iPS cell technology. Because these cells have the ability to transform into all of the cells of the human body (a property called pluripotency), they may provide a means of producing a host of new products of interest to medical researchers. For example, it may be possible to use hES and iPS cells to develop new cell lines designed to rebuild cell and tissue function lost due to degenerative disease or injury, and new cell lines for basic research and discovery of new drugs. Since embryonic stem cells can now be derived in a noncontroversial manner, including through the use of iPS technology, they are increasingly likely to be utilized in a wide array of future research programs in the attempt to restore the function of organs and tissues damaged by degenerative diseases such as heart failure, stroke, Parkinson's disease, macular degeneration, and diabetes, as well as many others.

On March 16, 2010, we announced the publication of a scientific paper titled "Spontaneous Reversal of Developmental Aging in Normal Human Cells Following Transcriptional Reprogramming" which was published in the peer-reviewed journal Regenerative Medicine. The paper explains the use of iPS technology to reverse the developmental aging of normal human cells. Using precise genetic modifications, normal human cells were induced to reverse both the "clock" of differentiation (the process by which an embryonic stem cell becomes the many specialized differentiated cell types of the body), and the "clock" of cellular aging (telomere length). As a result, aged differentiated cells became young stem cells capable of regeneration. These findings may have significant implications for the development of new classes of cell-based therapies targeting age-related degenerative disease..

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On April 29, 2009, 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 human embryonic progenitor cells ("hEPCs") generated using our ACTCellerate™ technology. These hEPCs are intermediate in the developmental process between embryonic stem cells and fully differentiated cells. The 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. 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.

In addition to acquiring and developing hES cell, iPS cell and hEPC technology, we have already commenced marketing our first stem cell products for research use through our subsidiaries, Embryome Sciences, Inc. and BioTime Asia, Limited. Embryome Sciences has entered into an agreement under which Millipore Corporation became a worldwide distributor of ACTCellerate™ hEPC lines. Millipore's initial offering of Embryome Sciences' products consists of six novel hEPC lines and optimized ESpan™ growth media for the in vitro propagation of each hEPC line. The companies anticipate jointly launching 29 additional hEPC 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 is also developing 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 embryome 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 embryome map data base is now available at our website 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. Study of these cell lines will enable researchers to better understand the mechanisms involved in causing the disease states, which may in turn expedite the search for potential treatments. We intend to offer these hES cell lines for sale online at Embryome.com during 2010. Additional new products that we have targeted for development are ESpy™ cell lines, which will be derivatives of hES cells and will emit beacons of light. The ability of the ESpy cells to emit light will allow researchers to track the location and distribution of the cells in both in vitro and in vivo studies.

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Embryome Sciences also plans to bring to market other new stem cell growth and differentiation factors that will permit researchers to manufacture specific cell types from hES 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.

Our initial efforts to develop therapeutic stem cell products are being conducted through two subsidiaries, BioTime Asia, Limited and OncoCyte Corporation. We organized BioTime Asia 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 has 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.

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.

Our acquisition of ESI will allow us to use ESI's clinical-grade hES cell lines with our ACTCellerateTM and ReCyteTM technologies that allow the derivation of hEPC lines with high levels of purity and scalability. Our goal will be to generate clonal clinical-grade hEPC lines for potential use in research products and therapeutic products with a level of purity and quality unsurpassed in the industry.

There is no assurance that BioTime Asia, OncoCyte, or ESI 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 us or by any of our subsidiaries, the company seeking to conduct the trials would have to compile sufficient laboratory test data substantiating the characteristics and purity of the stem cells, conduct animal studies, and then obtain all necessary regulatory and clinical trial site approvals, and assemble a team of physicians and statisticians for the trials.

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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 used 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 helps sustain vital organs during surgery. Hextend, approved for use in major surgery, is the only blood plasma volume expander that contains lactate, multiple electrolytes, glucose, and a medically approved form of starch called hetastarch. Hextend is sterile, so its use avoids the risk of infection. Health insurance reimbursements and HMO coverage now include the cost of Hextend used in surgical procedures.

Hextend 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 leading U.S. hospitals, other smaller hospitals will follow their lead, contributing to sales growth.

We are also developing another blood volume replacement product, PentaLyte. It, like Hextend, has been formulated to maintain the patient's tissue and organ function by sustaining the patient's fluid volume and physiological balance. We have completed a Phase II clinical trial of PentaLyte in which 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.

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

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;

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Continued research and product development work by us and our subsidiaries, Embryome Sciences and ESI;

Conducting new clinical trials of Hextend and PentaLyte

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.

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.

Offering Summary

Discount Offer	Under the discount offer, the warrants may be exercised at a price of $1.818 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.

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	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 and direct them to exercise them on your behalf.
Amendment, Extension, or Termination of the Discount Offer	BioTime may, in its sole discretion: (a) terminate the discount offer; (b) extend the discount offer expiration time 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 and their affiliates who own warrants may exercise their warrants in the discount offer on the same terms as 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 at 5:00 p.m. on October 31, 2010 and may not be exercised after that time and 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.

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Common Shares Offered	7,799,801 common shares are being offered by us upon the exercise of the warrants, options, and the ILC Warrant. 7,094,282 outstanding common shares are being offered by the selling security holders.
Warrants Offered	7,574,801 warrants and the ILC Warrant are being offered by the selling security holders.
Common Shares Outstanding	39,908,164 as of May 7, 2010.

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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 three months ended March 31, 2010 and the fiscal years ended December 31, 2009 and 2008 were $1,286,764, $5,144,499 and $3,780,895, respectively, and we had an accumulated deficit of $54,056,655, $52,769,891 and $47,625,392 as of March 31, 2010, December 31, 2009, and December 31, 2008, respectively. ESI, which we acquired on May 3, 2010, incurred net losses from operations of approximately $3.4 million (unaudited) and $3.26 million, respectively, without adjustment to United States generally accepted accounting principles, during its last two fiscal years, ending March 31, 2010 and 2009, respectively. However, financing costs related to the ESI promissory notes that we acquired contributed approximately $2.3 million (unaudited) and $0.94 million, respectively, to the net loss during each of those fiscal years. Interest on those notes will be eliminated in the consolidation of ESI's financial statements with our own. Upon completion of the acquisition of ESI, BioTime became the owner of the ESI promissory notes, so that these notes have become an inter-company obligation of ESI payable to BioTime. We have therefore acquired ESI essentially free of indebtedness to third parties, and we have incurred no debt obligations of our own as a result of the acquisition. 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.

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.

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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 $1,159,951, $2,968,987, and $1,725,187 during the three months ended March 31, 2010 and the fiscal years ended December 31, 2009 and 2008, respectively.

If we are successful in developing a new technology or product, refinement of the new technology or product and definition of the practical applications and limitations of the technology or product may take years and require the expenditure of large sums of money.

Future clinical trials of new 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.

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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.

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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.

During 2009, we were awarded a $4,721,706 grant for a stem cell research project, and we received $8,000,000 through the sale of stock and warrants, and our subsidiary OncoCyte Corporation received $4,000,000 through the sale of stock. During May 2010, we received $8,000,000 through the exercise of warrants by two private investors. However, 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.

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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.

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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.

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

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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.

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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.

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Securities analysts may not initiate coverage or continue to cover our common shares, 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 shares.

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 May 7, 2010, there were 39,908,164 common shares outstanding, 3,412,000 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, and 7,674,801 common shares reserved for issuance upon the exercise of the warrants and the ILC Warrant described in this prospectus, and 650,000 common shares reserved for issuance upon the exercise of other warrants that are not included in this prospectus. 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.

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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, and for the three months ended March 31, 2010 based on transaction data as reported by the OTCBB and the NYSE Amex:

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
March 31, 2010	7.70	4.56

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, and for the three months ended March 31, 2010 based on transaction data as reported by the OTCBB and the NYSE Amex:

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
March 31, 2010	5.62	2.54

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.

As of April 26, 2010, there were 11,230 holders of the common shares based on the share position listing.

BioTime has paid no dividends on its common shares since its inception and does not plan to pay dividends on its common shares in the foreseeable future.

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The following table shows certain information concerning the options and warrants outstanding and available for issuance under all of our compensation plans and agreements as of December 31, 2009:

Plan Category	Number of Shares to be Issued Upon Exercise of Outstanding Options, Warrants, and Rights	Weighted Average Exercise Price of the Outstanding Options, Warrants, and Rights	Number of Shares Remaining Available for Future Issuance Under Equity Compensation Plans
Equity Compensation Plans Approved by Shareholders	3,477,000	$ 1.12	2,087,168
Equity Compensation Plans Not Approved By Shareholders*	849,167	$ 1.82	-

*We have granted 321,667 warrants to certain consultants for providing services to us, and we have granted 402,500 warrants to an investment banker for arranging a portion of the loans under our Revolving Line of Credit Agreement. We have also granted 125,000 options to a consultant for providing services to us. These warrants and options were issued without registration under the Securities Act of 1933, as amended, in reliance upon the exemption provided by Section 4(2) thereunder.

USE OF PROCEEDS

The cash proceeds receivable from the exercise of the warrants included in this prospectus will be $13,770,988, if all of the warrants are exercised in the discount offer at $1.818 per share. The cash proceeds receivable from exercise of the ILC Warrant and 125,000 options included in this prospectus will be $293,000. 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	$ 9,141,592	65%
General and Administrative	2,109,598	15%
Working Capital	2,812,798	20%
Total	$ 14,063,988	100%

Research and Development. We plan to invest 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 by us or invested in our other subsidiaries, ESI and BioTime Asia, or in Cell Cure Neurosciences, Limited, 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, and to begin human clinical trials for new indications of our lead product Hextend, including the treatment of severe malaria by reducing the acidosis and hypovolemia that accompany that disease, and often result in fatalities, especially among children. 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.

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General and Administrative. Portions of the proceeds may be used to defray overhead expenses, and may also be put toward future opportunities and contingencies that might arise, including the payment of costs incurred in retaining various personnel or securing various services necessary to support the advancement of our research and development programs. A portion of the salaries, benefits, and fees of employees and consultants who assist in the development of new products or in the preparation of patent applications or applications to the FDA and foreign regulatory agencies is allocable to general and administrative costs. We will also incur general and administrative expenses for payment of any of the various legal, accounting, governmental, and stock exchange costs inherent in operating as a publicly traded company. We expect that our general and administrative expenses will increase as we achieve progress in developing products and bringing them to market.

Working Capital. We intend to apply the balance of the proceeds from the exercise of the warrants to working capital. We will have broad discretion with respect to the use of such amounts. Proceeds allocated to working capital may also be reallocated to research and development expense or to general and administrative expense should such needs arise, and may be used to pay any of 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 programs. The timeframe in which we will use the proceeds will depend upon a variety of factors, such as the pace at which we and our subsidiaries make progress in our research and development programs, the results of clinical trials that we may undertake, and any opportunities to acquire new products and technologies, or to enter into new market segments that may arise, and the amounts of revenues that we may receive from the sale and licensing of our products and technologies.

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.

THE DISCOUNT OFFER

Discount Offer

We are offering holders of the warrants described in this prospectus 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 the warrants to be exercised at an exercise price of $1.818 per share. This represents a discount of $0.182 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.

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If a warrant holder exercises fewer than all of the warrants evidenced by their warrant certificate, the warrant agent will deliver to the warrant holder a new warrant certificate for the unexercised portion of their warrant certificate.

After the discount offer expires, warrant holders who continue to hold warrants will be able to exercise their remaining warrants at the regular exercise price of $2.00 per share until the warrants expire on October 31, 2010.

The members of our Board of Directors who own warrants may exercise their warrants in the discount offer on the same terms as other warrant holders.

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.

Make payment for your shares – the method of doing so is described below under ‘‘Payment for Shares.’’

Ensure that properly completed and executed warrant certificates are 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, NY 10038

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

American Stock Transfer & Trust Company
Reorganization Department
59 Maiden Lane
New York, NY 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 by the warrant agent when payment, together with a properly completed and executed warrant certificate, is received by the warrant agent at its Reorganization 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.

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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 made 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 distribution of shares. The interest earned on the account will belong to BioTime.

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.

You may not revoke the exercise of your warrants except as described below in the case of a material amendment of the discount offer.

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Amendment, Extension, or Termination of the Discount Offer

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.

If we materially amend the terms of the discount offer, an amended prospectus specifying the amended terms will be distributed to each holder of record of warrants and to each person who previously exercised any of their warrants in the discount offer but whose shares have not yet been issued. An extension of the discount offer expiration time will not be deemed an amendment or modification of the discount offer. If you exercised your warrants prior to the amendment and your shares have not yet been issued, or if you exercised your warrants within four business days after the mailing of the amended prospectus, you will be given the opportunity to confirm the exercise of your warrants by executing and delivering a consent form. If you fail to deliver, in a proper and timely manner, a properly executed consent form, you will be deemed to have rejected the amended terms of the discount offer and you will be deemed to have elected to revoke in full the exercise of your warrants. If your exercise of warrants is so revoked, the full amount of the exercise price you paid will be returned to you.

If your executed warrant and the exercise price are received by the warrant agent more than four days after the mailing of an amended prospectus, you will be deemed to have accepted the amended terms of the discount offer in connection with the exercise of your warrants.

If we elect to terminate the discount offer before delivering the shares for which you exercised your warrants, the exercise price you paid will be returned to you promptly by mail. Except for the obligation to return the exercise price you paid when you attempted to exercise your warrants, neither we nor the warrant agent will have any obligation or liability to you in the event of an amendment or termination of the discount offer.

DESCRIPTION OF SECURITIES

Common Shares

Our Articles of Incorporation currently authorize the issuance of up to 75,000,000 common shares, no par value, of which 39,908,164 shares were outstanding at May 7, 2010. As of April 26, 2010, there were 11,230 holders of the common shares based on the share position listings. Each holder of record is entitled to one vote for each outstanding common share owned by him on every matter properly submitted to the shareholders for their vote.

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.

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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.

Warrants

There are 7,574,801 warrants issued and outstanding. In addition to those warrants, we have also issued the ILC Warrant, granting the right to purchase 100,000 common shares; and 650,000 other warrants ("Other Warrants") that have terms and conditions that are different from those of the warrants included in this prospectus. The following description of warrants does not pertain to the ILC Warrant or the Other Warrants, which are separately described below.

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.

Warrants may be exercised in whole or in part by presentation of a warrant certificate to the warrant agent and payment of the exercise price. The purchase form on the reverse side of the warrant must be signed by the warrant holder, and the warrant holder's signature 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 wire transfer. 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.

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.

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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.

ILC Warrant

The ILC Warrant entitles the holder to purchase 100,000 common shares at a price of $0.68 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 ILC Warrant will expire on July 30, 2013 and may not be exercised after that date.

The ILC Warrant may be exercised in whole or in part by presentation of a warrant certificate to the warrant agent and payment of the exercise price. The purchase form attached to the ILC Warrant must be signed by the ILC Warrant holder. Payment of the exercise price of the ILC Warrant must be made in cash or by certified or bank cashier’s check or by wire transfer. The ILC Warrant will not be listed on the NYSE Amex and is not expected to be publicly traded in an established securities market in whole or in part.

Other Warrants

We have issued, in transactions exempt from registration under the Securities Act, 650,000 Other Warrants, of which 300,000 have an exercise price of $3.00 per share and expire on September 23, 2012, 50,000 have an exercise price of $10.00 per share and expire on April 12, 2014, and 300,000 have an exercise price of $10.00 per share and expire on May 2, 2014. The number of common shares and exercise prices of the Other Warrants will be proportionally adjusted in the event of a stock split, stock dividend, combination, or similar recapitalization of the common shares. We have agreed with the holders of 300,000 of the Other Warrants to register their Other Warrants under the Securities Act. None of the Other Warrants are included in this prospectus.

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RESALE OF SHARES AND WARRANTS

A portion of the warrants, as well as certain outstanding common shares and options, and the common shares that may be issued upon the exercise of those warrants and options, are being registered for sale for the account of the holders of those securities. In addition, this prospectus relates to the ILC Warrant and the 100,000 common shares that may be issued upon the exercise of the ILC Warrant.

The security holders for whose account warrants, the ILC Warrant, shares, or options are being registered through this prospectus are sometimes referred to in this prospectus as "selling security holders" and information about them and the securities that they may sell through this prospectus is discussed in this section.

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

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.

The warrants and common shares that we issued to the Guarantors and Participating Debenture Holders under the Standby Purchase Agreements are included in this prospectus and may be sold by them for their own accounts.

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2009 Private Placement

During May and July 2009, we sold 2,200,000 common shares and 2,200,000 warrants to Broadwood Partners, L.P. for $4,000,000, and we concurrently sold a like number of shares and warrants at the same price to George Karfunkel. We have agreed to file a registration statement to register the warrants and shares issuable upon the exercise of the warrants for sale under the Securities Act. Mr. Karfunkel and Broadwood Partners, L.P. exercised those warrants during May 2010 at the discounted price of $1.818 per share, and the shares issued to them upon the exercise of those warrants are included in this prospectus and may be sold by them for their own accounts. We have also agreed to file a registration statement to register the other common shares they purchased, or to permit Mr. Karfunkel and Broadwood Partners, L.P. to include the common shares in any future registration statements that we may file, after May 15, 2010, subject to certain limitations.

Exchange Offer Warrants

During August 2009, we completed an exchange offer with the lenders under our Revolving Line of Credit Agreement, through which we issued 1,989,515 common shares and 100,482 warrants, and we paid $294,351 in interest, to lenders in exchange for $3,349,259 of Revolving Line of Credit Agreement promissory notes. The warrants issued in the exchange offer are included in this prospectus and may be sold by those selling security holders for their own accounts.

ILC Warrant

During 2008, we issued the ILC Warrant, to the International Longevity Center-USA, a non-profit institution for which one of our directors, Robert N. Butler, M.D., serves as President, Chief Executive Officer, and a member of the board of directors. The International Longevity Center-USA may sell the ILC Warrant, or may exercise the ILC Warrant and sell the common shares issued, for its own account.

Consultant’s Warrants and Options

We have also included in this prospectus certain warrants and stock options, and the shares issuable upon the exercise of those warrants and stock options, that were issued to persons or companies that provided consulting services or investment banking services to us. Those warrants and any common shares that may be issued upon the exercise of those warrants, and any shares that may be issued upon the exercise of the stock options, are included in this prospectus and may be sold by those selling security holders for their own accounts.

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 holder of the ILC Warrant may also sell the ILC Warrant in one or more privately negotiated transactions. The selling security holders also may sell common shares acquired through the exercise of their warrants, the ILC Warrant, or stock options, or they may hold those shares for investment purposes and sell them at a later date.

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The selling security holders will bear all broker-dealer commissions payable in connection with the sale of their common shares, warrants, or the ILC Warrant. 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. Broker-dealers may also acquire the ILC Warrant in whole or in part in privately negotiated transactions for resale or for the exercise and resale of the underlying common shares at prevailing market prices or at negotiated prices, and may receive usual and customary commissions from the purchasers of those securities.

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 to 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 if they sell all of the shares registered for their respective accounts:

Name	Shares Owned(1)(2)	Shares Offered(1)(3)	Shares Owned After Offering(1)	Percentage of Outstanding Common Shares Owned After Offering(1)
Steven Bayern (S.J. Bayern & Co.)	125,000 (4)	125,000	0	*
Broadwood Partners, L.P.	6,869,249 (5)	3,303,635	3,565,614 (5)	8.93 %
Goren Brothers, L.P.	349,484	97,402	252,082	*
Alfred D. Kingsley	4,935,432 (6)	1,190,305	3,745,127 (6)	9.38 %
Greenway Partners, L.P.	550,287 (7)	302,940	247,347 (7)	*
George Karfunkel	4,982,217 (8)	2,200,000	2,782,217 (8)	6.97 %

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* Less than 1%

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

(2) Includes all shares owned by the selling security holders, including those that we are registering for sale for their account. The selling security holders may be entitled to sell, without registration under the Securities Act, some or all of the shares that we are not registering for their account.

(3) Includes only those shares that are being registered for sale for the account of the selling security holders.

(4) Includes 125,000 shares that Mr. Bayern may acquire through the exercise of stock options.

(5) 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.

(6) 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.

(7) 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.

(8) Does not include shares that may be acquired upon the exercise of warrants owned by Mr. Karfunkel.

The following table shows the number of warrants beneficially owned by the selling security holders prior to this offering, the maximum number of warrants or ILC 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 if they sell all of the warrants registered for their respective accounts:

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Name	Warrants Owned(1)	Warrants Offered(2)	Warrants Owned After Offering	Percentage of Outstanding Warrants Owned After Offering
Francis Anderson	36,000	36,000	0	*
Michael Benson	1,500	1,500	0	*
Gilles Bridier	1,500	1,500	0	*
Broadwood Partners, L.P.	1,408,143 (3)	1,294,558	113,585 (3)	1.7 %
Celine Cabanac	750	750	0	*
Cyndel & Co.	89,999	89,999	0	*
EDN Equities	9,971	197	9,774	*
Goren Brothers, L.P.	109,530	100,155	9,375	*
Greenbelt Corp.	337,632 (4)	3,000	334,632 (4)	5.0 %
Greenway Partners, L.P.	353,705 (5)	311,076	42,629 (5)	*
Harto Family Partners, L.P.	1,500	1,500	0	*
Steven N. Himmelman	10,000	10,000	0	*
Robert Howard	140,000	140,000	0	*
Huntington Laurel Partnership	3,000	3,000	0	*
International Longevity Center-USA	100,000 (6)	100,000	0	*
Keren Ohr Lanoar B	43,486	857	42,629	*
George Karfunkel	15,000	15,000	0	*
Alfred D. Kingsley	2,278,189 (7)	1,351,935	926,254 (7)	13.9 %
Robert Kingsley	15,000	15,000	0	*
Patrick Kolenik	152,100	152,100	0	*
Life Sciences Business Development LLC	9,667	9,667	0	*
Frayda Mason	31,500	31,500	0	*
Irwin Messer	50,000	50,000	0	*
New England School of Law	3,000	3,000	0	*
Ralph Katz Profit Sharing Trust	1,500	1,500	0	*
Steve Reilly	7,500	7,500	0	*
SJCMB Family Limited Partnership	3,000	3,000	0	*
South Ferry #2, L.P.	8,760	173	8,587	*
Ronit Sucoff	161,200	161,200	0	*
United Congregation Mesora	44,387	874	43,513	*
Dolph Weissman	25,000	25,000	0	*
Wolfson Descendants Intermediary Corp.	8,698	172	8,526	*
Wolfson Equities	14,413	284	14,129	*
XRKC Service Corp.	15,000	15,000	0	*

*Less than 1%.

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(1) Includes all warrants owned by the selling security holders, including those that we are registering for sale for their account. The selling security holders may be entitled to sell, without registration under the Securities Act, some or all of the warrants that we are not registering for their account.

(2) Includes only those warrants that are being registered for sale for the account of the selling security holders.

(3) 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.

(4) Does not include warrants owned by Alfred D. Kingsley or Greenway Partners, LP.

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

(6) Includes only the ILC Warrant.

(7) 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, 2009 and 2008 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, 2009, Quarterly Report on Form 10-Q for the three months ended March 31, 2010, and Current Reports on Form 8-K filed by us with the Commission on March 10, 2010, March 16, 2010, April 29, 2010, May 3, 2010, May 5, 2010, and May 10, 2010 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 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 94504;

Telephone: (510) 521-3390. The reports and other documents incorporated by reference may be accessed at our internet website www.biotimeinc.com.

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WHERE YOU CAN FIND MORE INFORMATION

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

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

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

We have filed with the Securities and Exchange Commission, 100 F Street N.E., Washington, D.C. a registration statement on Form S-1 under the Securities Act 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.

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

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7,674,801 Warrants

7,094,282 Common Shares

7,799,801 Common Shares Issuable Upon Exercise of Warrants and Options

PROSPECTUS

May__, 2010

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PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution.

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

Registration Fee-Securities and Exchange Commission	$ 2,596
Stock Exchange Listing Fees	$ 15,000
Printing and Engraving Expenses	$ 3,500
Accounting Fees	$ 5,000
Legal Fees	$ 15,000
Miscellaneous Expenses	$ 8,904
Total	$ 50,000

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.

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Item 16. Exhibits and Financial Statement Schedules.

Exhibit Numbers	Description
4.1	Specimen of Common Share Certificate(1)
4.2	Form of Warrant Agreement between BioTime, Inc. and American Stock Transfer & Trust Company(2)
4.3	Form of Amendment of Warrant Agreement between BioTime, Inc. and American Stock Transfer & Trust Company(3)
4.4	Form of Second Amendment of Warrant Agreement between BioTime, Inc. and American Stock Transfer & Trust Company.*
4.5	Form of Warrant(3)
5.	Opinion of Counsel*
23.1	Consent of Rothstein, Kass & Company, P.C. *
23.2	Consent of Counsel (Included in Exhibit 5)

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

(2) 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.

(3) 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.

* 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.

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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:

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(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.

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SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Alameda, State of California on May 14, 2010.

BIOTIME, INC.

By /s/ Michael D. West
Chief Executive Officer

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

Signature	Title	Date
/s/ Michael D. West MICHAEL D. WEST, PH.D.	Chief Executive Officer and Director (Principal Executive Officer)	May 14, 2010
/s/ Steven A. Seinberg STEVEN A. SEINBERG	Chief Financial Officer (Principal Financial and Accounting Officer)	May 14, 2010
ROBERT W. PEABODY	Chief Operating Officer and Senior Vice-President	May __, 2010
/s/ Neal C. Bradsher NEAL C. BRADSHER	Director	May 14, 2010
ARNOLD I. BURNS	Director	May __, 2010
ROBERT N. BUTLER, MD	Director	May __, 2010
ABRAHAM E. COHEN	Director	May __, 2010
/s/ Valeta Gregg VALETA GREGG, PH.D.	Director	May 14, 2010
/s/ Alfred D. Kingsley ALFRED D. KINGSLEY	Director	May 14, 2010
PEDRO LICHTINGER	Director	May __, 2010

/s/ Judith Segall JUDITH SEGALL	Director	May 14, 2010