

BIOTIME INC  
Form S-2  
September 02, 2005

**Table of Contents**

**As filed with the Securities and Exchange Commission on September 2, 2005**

**Registration No.**

**SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549**

**Form S-2  
REGISTRATION STATEMENT  
UNDER  
THE SECURITIES ACT OF 1933**

**BIOTIME, INC.**

*(Exact name of Registrant as specified in charter)*

**California**

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

**94-3127919**

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

**6121 Hollis Street  
Emeryville, California 94608  
(510) 350-2940**

*(Address, including zip code, and  
telephone number, including area code, of  
Registrant's principal executive offices)*

**Judith Segall, Vice President and Secretary  
BioTime, Inc.  
6121 Hollis Street  
Emeryville, California 94608  
(510) 350-2940**

*(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 any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933 check the following box.  x

If the registrant elects to deliver its latest annual report to security holders, or a complete and legible facsimile thereof, pursuant to Item 11(a)(1) of this Form, 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

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

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

If delivery of the prospectus is expected to be made pursuant to Rule 434, please check the following box.

**CALCULATION OF REGISTRATION FEE**

<b>Title of Each Class of Securities to be Registered</b>	<b>Amount to be Registered</b>	<b>Proposed Maximum Offering Price per Unit(1)</b>	<b>Proposed Maximum Aggregate Offering Price(1)</b>	<b>Amount of Registration Fee</b>
Common Share Subscription Rights	17,871,450			
Common Shares, no par value(2)	3,574,290	\$0.50	\$1,787,145	\$210.35
Warrants to Purchase Common Shares(2)	3,574,290			
Common Shares, no par value(3)	1,787,145	\$0.50	\$893,572.50	\$105.17
Warrants to Purchase Common Shares(3)	1,787,145			
Warrants to Purchase Common Shares(4)	600,000			
Common Shares, no par value(5)	5,961,435	\$2.00	\$11,922,870	\$1,403.33
<b>Total Registration Fee</b>				<b>\$1,718.85</b>

(1) Estimated solely for the purpose of calculating the registration fee.

(2) Issuable upon the exercise of the Common Share Subscription Rights.

(3) Issuable to fill Excess Over-Subscriptions.

(4) Issuable to the Guarantors.

(5) Issuable upon the exercise of the Warrants.

**The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this**

**Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, or until the Registration Statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.**

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Table of Contents**PROSPECTUS****BIOTIME, INC.****3,574,290 Units Issuable Upon the Exercise of Subscription Rights****1,787,145 Units Issuable to Fill Excess Over-Subscriptions****5,361,435 Common Shares Issuable Upon Exercise of Warrants****Each Unit Consists of One Common Share and One Warrant**

BioTime, Inc. ( BioTime ) is issuing new securities called rights. You will receive one right for each BioTime common share you owned as of the close of business on , 2005, the record date.

The rights will entitle you to subscribe for and purchase one unit for every five rights you hold.

Each unit will consist of one BioTime common share and one warrant to purchase one common share.

We may issue 3,574,290 units for \$1,787,145 through the exercise of the rights.

The subscription price is \$0.50 per unit.

Each full warrant will entitle you to purchase one common share of BioTime for \$2.00 per share.

By over-subscribing, you may be able to purchase any units that are left over by shareholders who fail to exercise their rights. BioTime may also issue up to 1,787,145 additional units for \$0.50 each to fill over-subscriptions.

**The rights will expire at 5:00 p.m. New York City time on , 2005.**

A group of private investors (the Guarantors ) have agreed to purchase units that remain unsold at the conclusion of the rights offer. The purchase obligation of the Guarantors is limited to a maximum of \$1,787,145.

The Guarantors are not required to purchase the units that we have authorized to issue to fill over-subscriptions.

The Guarantors are Cyndel & Co, Inc., George Karfunkel, Alfred D. Kingsley, Greenway Partners, LP, and Broadwood Partners, LP.

The Guarantors are deemed underwriters under the Securities Act of 1933, as amended.

The common shares and warrants are quoted on the OTC Bulletin Board ( OTCBB ) under the symbol BTIM and BTIMW, respectively. The rights will be transferable and we expect that prices for the rights will be quoted on the OTCBB under the symbol BTIMR. The units themselves will not be quoted or traded. Instead, the warrants and common shares issuable upon the exercise of the rights will be immediately tradeable apart from the units.

**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 6.**

**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.**

	<b>Units Offered</b>	<b>Price to the Public</b>	<b>Guarantors Fee</b>	<b>Proceeds to the Company(1)</b>
<b>Subscription Rights Exercise</b>				
<b>Price Per Unit</b>	5,361,435	\$ 0.50	\$ 0.025	\$ 0.475
<b>Total(2)</b>		\$ 2,680,717.50	\$ 132,000	\$ 2,548,717.50

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- (1) Before deducting expenses of the rights offer which are estimated to be \$ .
  - (2) Assumes all of the rights are exercised and 1,787,145 units are sold to fill excess over-subscriptions.  
The date of this prospectus is , 2005.
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**Table of Contents**

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**TABLE OF CONTENTS**

PROSPECTUS SUMMARY

THE RIGHTS OFFER

USE OF PROCEEDS

DESCRIPTION OF SECURITIES

RESALE OF SHARES AND WARRANTS

LEGAL MATTERS

EXPERTS

ADDITIONAL INFORMATION ABOUT BIOTIME

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

ADDITIONAL INFORMATION

APPENDIX B

PART II.

SIGNATURES

EXHIBIT INDEX

EXHIBIT 1

EXHIBIT 4.4

EXHIBIT 4.5

EXHIBIT 4.7

EXHIBIT 4.8

EXHIBIT 5.1

EXHIBIT 23.1

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**Table of Contents**

**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 or in the documents incorporated by reference into this prospectus. Statements contained in this prospectus that are not historical facts may constitute forward-looking statements that are subject to risks and uncertainties that could cause actual results to differ materially from those discussed. Words such as expects, may, will, anticipates, intends, plans, believes, seeks, estimates, and expressions identify forward-looking statements. See Risk Factors.*

**The Company**

BioTime, Inc. is engaged in the research and development of synthetic solutions that can be used as blood plasma volume expanders, blood replacement solutions during hypothermic (low temperature) surgery, and organ preservation solutions. Plasma volume expanders are used to treat blood loss in surgical or trauma patients until blood loss becomes so severe that a transfusion of packed red blood cells or other blood products is required. We are also developing a specially formulated hypothermic blood substitute solution that would have a similar function and would be used for the replacement of very large volumes of a patient's blood during cardiac surgery, neurosurgery and other surgeries that involve lowering the patient's body temperature to hypothermic levels.

Our first product, Hextend®, is a physiologically balanced blood plasma volume expander, for the treatment of hypovolemia. Hypovolemia is a condition caused by low blood volume, often from blood loss during surgery or from injury. Hextend maintains circulatory system fluid volume and blood pressure and keeps vital organs perfused during surgery. Hextend, approved for use in major surgery, is the only blood plasma volume expander that contains lactate, multiple electrolytes, glucose, and a medically approved form of starch called hetastarch. Hextend is designed to compete with and to replace products that have been used to maintain fluid volume and blood pressure during surgery. These competing products include albumin and other colloid solutions, and crystalloid solutions. Commercially sold albumin is processed from human blood. Other colloid solutions contain proteins or a starch that keep the fluid in the patient's circulatory system in order to maintain blood pressure. Crystalloid solutions generally contain salts and may also contain other electrolytes, and are not as effective as Hextend, albumin and other colloids on a per unit basis in maintaining a patient's circulatory system fluid volume and pressure. Hextend is also sterile to avoid risk of infection. Health insurance reimbursements and health maintenance organization coverage now include the cost of Hextend used in surgical procedures.

We are also developing two other blood volume replacement products, PentaLyte® and HetaCool®, that, like Hextend, have been formulated to maintain the patient's tissue and organ function by sustaining the patient's fluid volume and physiological balance.

Hextend is being distributed by Hospira, Inc. in the United States and Canada and by C.J. Corp in South Korea under exclusive licenses from us. Hospira was organized by Abbott Laboratories as a spin-off of a substantial portion of Abbott's hospital products business. In connection with the spin-off, Abbott assigned to Hospira the Exclusive License Agreement with us to manufacture and market Hextend in the United States and Canada.

We have entered into an agreement with Summit Pharmaceuticals International Corporation to develop Hextend and PentaLyte for the Japanese market. BioTime and Summit do not plan to manufacture and market Hextend and PentaLyte themselves. Instead, we will seek to license manufacturing and marketing rights to a third party such as a pharmaceutical company.

Various colloid and crystalloid products are being marketed by other companies for use in maintaining patient fluid volume in surgery and trauma care, but those solutions do not contain the unique comprehensive combination of electrolytes, glucose, lactate and hydroxyethyl starch found in Hextend, PentaLyte, and HetaCool. The use of competing solutions has been reported to correlate with patient morbidity, fluid accumulation in body tissues, impaired blood clotting, and a disturbance of the delicate chemical balances on

**Table of Contents**

which most of the body's chemical reactions depend. One of these competing products is 6% hetastarch in saline solution. The United States Food and Drug Administration (the FDA) has required the manufacturers of 6% hetastarch in saline solutions to change their product labeling by adding a warning stating that those products are not recommended for use as a cardiac bypass prime solution, or while the patient is on cardiopulmonary bypass, or in the immediate period after the pump has been disconnected. We have not been required to add that warning to the labeling of Hextend.

Another competing product is albumin produced from human plasma. Albumin is more expensive than Hextend and is subject to supply shortages. An FDA warning has cautioned physicians about the risk of administering albumin to seriously ill patients.

We are presently conducting a Phase II clinical trial using PentaLyte in the treatment of hypovolemia in cardiac surgery. PentaLyte contains a lower molecular weight hydroxyethyl starch than Hextend, and is more quickly metabolized. PentaLyte is designed for use when short lasting volume expansion is desirable. Our ability to complete clinical studies of PentaLyte will depend on our cash resources and the costs involved, which are not presently determinable.

We are also continuing to develop solutions for low temperature surgery and trauma care. A number of physicians have reported using Hextend to treat hypovolemia under mild hypothermic conditions during cardiac surgery. Additional cardiac surgeries have been performed at deeper hypothermic temperatures. In one case, Hextend was used to treat hypovolemia in a cancer patient operated on under deep hypothermic conditions in which the heart was arrested. Once a sufficient amount of data from successful low temperature surgery has been compiled, we plan to seek permission to conduct trials using Hextend as a complete replacement for blood under near-freezing conditions. We currently plan to market Hextend for complete blood volume replacement at very low temperatures under the trademark HetaCool after FDA approval is obtained.

We have been awarded a research grant in the amount of \$299,990 by the National Heart, Lung, and Blood Institute division of the National Institutes of Health (NIH) for use in the development of HetaCool. The grant is being used to fund a project entitled Resuscitating Blood-Substituted Hypothermic Dogs at the Texas Heart Institute in Houston under the guidance of Dr. George V. Letsou. Dr. Letsou is Associate Professor of Surgery and Director of the Heart Failure Center at the University of Texas Medical School in Houston, Texas.

In order to commence clinical trials for regulatory approval of new products, or new therapeutic uses of Hextend, it will be necessary for us to prepare and file with the FDA an Investigational New Drug Application (IND) or an amendment to expand the present IND for additional clinical studies. Filings with foreign regulatory agencies will be required to commence clinical trials overseas. The cost of preparing regulatory filings and conducting clinical trials is not presently determinable, but could be substantial. It will be necessary for us to obtain additional funds in order to complete any clinical trials that we may conduct for our new products or for new uses of Hextend.

In addition to developing clinical trial programs, we plan to continue to provide funding for our laboratory testing programs at selected universities, medical schools and hospitals for the purpose of developing additional uses of Hextend, PentaLyte, HetaCool, and other new products, but the amount of research that will be conducted at those institutions will depend upon our financial status.

BioTime was incorporated under the laws of the State of California on November 30, 1990. Our principal office is located at 6121 Hollis Street, Emeryville, California 94608. Our telephone number is (510) 350-2940.

Hextend,® PentaLyte,® and HetaCool® are registered trademarks of BioTime, Inc.

**Table of Contents**

**Purpose of the Rights Offer**

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

Costs of conducting additional clinical trials of BioTime products;

Costs associated with seeking regulatory approval of our products;

Continued research and product development; and

General and administrative expenses.

We are issuing the rights to raise additional capital without significant dilution of the ownership interests of existing shareholders who exercise their rights. Shareholders who exercise their rights will be able to purchase shares at a price below market without incurring broker's commissions.

Generally, shareholders who exercise their rights in full will be able to maintain their prorata share of BioTime's outstanding common shares. However, shareholders will experience some dilution to their percentage interests in BioTime by virtue of the warrants issuable to the Guarantors. Also, if the rights offer is oversubscribed and we issue additional units to fill over-subscriptions, shareholders who do not purchase their prorata portion of those additional units by over-subscribing would experience a reduction in their percentage interests in BioTime's outstanding shares. Shareholders could also experience a reduction in their percentage interest in BioTime if they fail to exercise their warrants in the future. The distribution of the rights to shareholders will also afford those shareholders who choose not to exercise their rights the potential of receiving a cash payment upon the sale of their rights. Therefore, the receipt of rights by shareholders who choose not to exercise their rights may be viewed as compensation for the possible dilution.

**Terms of the Offer**

Securities Offered

The rights will entitle you to subscribe for and purchase one unit for every five rights you hold. Each unit will consist of one new common share and one warrant to purchase an additional common share.

Each warrant entitles the holder to purchase one common share at a price of \$2.00 per share. 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. The warrants will expire on October 1, 2010 and may not be exercised after that date.

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

Common Shares Outstanding	17,871,450
Common Shares Offered	3,574,290 through the exercise of the rights
	1,787,145 to fill excess over-subscriptions
	5,361,435 through the exercise of warrants(1)



**Table of Contents**

Warrants Offered	3,574,290 through the exercise of rights  1,787,145 to fill excess over-subscriptions  600,000 issuable as a fee to the Guarantors
Subscription Price	The subscription price per unit is \$0.50.
Over-Subscription Privilege	Shareholders who fully exercise the rights initially issued to them will be entitled to the additional privilege of subscribing for and purchasing any units not acquired by other holders of rights. See <u>The Rights Offer</u> <u>Over-Subscription Privilege</u> .
Distribution of Rights	<p>The rights will be evidenced by subscription certificates which will be mailed to shareholders other than foreign shareholders whose record addresses are outside the United States. A copy of the subscription certificate can be found in Appendix A of this prospectus.</p> <p>If your BioTime shares were held in the name of Cede &amp; Co. as nominee for The Depository Trust Company, or in the name of any other depository or nominee, on the record date, you will also receive rights. You should contact your broker-dealer or other financial institution that holds your common shares in order to exercise, sell, or transfer your rights.</p>
How to Exercise Rights	The rights will be evidenced by subscription certificates, which will be distributed to shareholders. You may exercise your rights by completing the subscription certificate and delivering it, together with payment of the subscription price, to the subscription agent, American Stock Transfer & Trust Company, 6201 15 <sup>th</sup> Avenue, Brooklyn, New York 11219 or at 59 Maiden Lane, New York, New York 10038 if you deliver your certificate and payment by hand. Payment may be made either by check drawn on a United States bank or by wire transfer, as explained under <u>The Rights Offer</u> <u>Payment for Units</u> . Rights must be exercised no later than the expiration date. You may not rescind a purchase after exercising your rights. If your subscription certificate is not available for tender on the expiration date, you may still exercise your rights by following the guaranteed delivery procedures described under <u>The Rights Offer</u> <u>Payment for Units</u> .
Sale of Rights	The rights are transferable until the last business day prior to the expiration date. A business day is a day on which the prices of securities are quoted on the OTCBB. The prices for the rights are expected to be quoted on the OTCBB. Trading of the rights will be conducted through the last business day prior to the expiration date. Any commissions in connection with the sale of rights will be paid by the selling rights holder. BioTime and the subscription agent cannot assure that a market for the rights will develop, or the prices at which rights may be sold if a market does develop.
Foreign Restrictions	Subscription certificates will not be mailed to shareholders whose addresses of record are outside the United States. The rights will be held by the subscription agent for foreign shareholders' accounts until instructions are received to exercise, sell or transfer the rights. If no instructions are received by 5:00 p.m., New York

time on

**Table of Contents**

, 2005, which is three business days prior to the expiration date, the subscription agent will use its best efforts to sell the rights of foreign shareholders. The net proceeds, if any, from such a sale will be paid to the foreign shareholders on a prorata basis. See The Rights Offer Foreign Shareholders.

Important Dates to Remember Record Date: , 2005

Expiration Date: , 2005

Last Date of Guaranteed Delivery: 2005

Amendment, Extension or Termination of the Rights Offer BioTime may, in its sole discretion: (a) terminate the rights offer prior to delivery of the units for which rights holders have subscribed; (b) extend the expiration date to a later date; (c) change the record date prior to the distribution of the rights to shareholders; or (d) amend or modify the terms of the rights offer.

(1) This amount is the number of common shares that will be issuable upon the exercise of warrants if the all of the rights are exercised and the rights offer is fully over-subscribed. An additional 600,000 common shares may be issued if the warrants issuable as a fee to the Guarantors are exercised.

**Table of Contents**

**RISK FACTORS**

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

***We May Not Succeed In Marketing Our Products Due to the Availability of Competing Products***

Our ability to generate operating revenue depends upon our success in developing and marketing our products. We may not succeed in marketing our products and we may not receive sufficient revenues from product sales to meet our operating expenses or to earn a profit. In this regard, sales of Hextend to date have not been sufficient to generate an amount of royalties or licensing fees sufficient to cover our operating expenses. 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, BioTime products will have to provide medically significant advantages.

Physicians and hospitals may be reluctant to try a new product due to the high degree of risk associated with the application of new technologies and products in the field of human medicine.

Competing products are being manufactured and marketed by established pharmaceutical companies. For example, B. Braun presently markets Hespan, 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 \$1,123,261 during 2004 and \$804,118 during the six months ended June 30, 2005.

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. For example, we spent approximately \$5,000,000 on research and development of Hextend before commencing clinical trials on humans during October 1996. The cost of completing the Hextend clinical trials and preparing our FDA application was approximately \$3,000,000. These costs exclude corporate overhead included in general and administrative costs in our financial statements.

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 a Phase I clinical trial of PentaLyte, and we will have to complete a Phase II clinical trial in addition to a Phase III trial,

**Table of Contents**

that will involve more patients than our Hextend trials. We do not yet know the scope or cost of the clinical trials that the FDA will require for PentaLyte or the other products we are developing.

***We Have Incurred Operating Losses Since Inception and We Do Not Know If We Will Attain Profitability***

Our net losses for the fiscal years ended December 31, 2002, 2003, and 2004 were \$2,844,900, \$1,742,100, and \$3,085,300, respectively, and we incurred a loss of \$1,169,324 for the six months ended June 30, 2005. We have incurred a net loss of \$39,637,000 since the inception of our company in 1990. 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 for medical use.

***We Might Not Be Able To Raise Additional Capital Needed To Pay Our Operating Expenses***

We plan to continue to incur substantial research, product development, and regulatory 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. We have not received an amount of royalties and licensing fees from the sale of Hextend sufficient to cover our operating expenses. As of June 30, 2005, we had \$588,540 of cash and cash equivalents on hand. At our current rate of spending, our cash on hand, reimbursable product development fees receivable from Summit, and anticipated royalties from Hospira, will allow us to operate through March 2006. 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 products, depends upon the amount of money we have. We plan to spend at least \$1,000,000 on clinical trials of PentaLyte. The costs of clinical trials and future research work are not presently determinable due to many factors, including the inherent uncertainty of those costs and the uncertainty as to the timing, source, and amount of capital that will become available for those projects. We have already curtailed the pace of our product development efforts due to the limited amount of funds available, and we may have to postpone further laboratory and clinical studies, unless our cash resources increase through a growth in revenues or additional equity investment or borrowing. Although we will continue to seek licensing fees from pharmaceutical companies for licenses to manufacture and market our products abroad, it is likely that additional sales of equity or debt securities will be required to meet our short-term capital needs. Sales of additional equity securities could result in the dilution of the interests of present shareholders. We may not be able to raise a sufficient amount of additional funds to permit us to develop and market our products. 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 are making progress with our research and development projects.

***If We Are Unable To Enter Into Additional Licensing Or Manufacturing Arrangements, We May Have to Incur Significant Expense To Acquire Manufacturing Facilities And A Marketing Organization***

We presently do not have adequate facilities or resources to manufacture our products and the ingredients used in our products. We plan to enter into arrangements with pharmaceutical companies for the production and marketing of our products. Hospira has an exclusive license to manufacture and market Hextend in the United States and Canada, and CJ has an exclusive license to manufacture and market Hextend and PentaLyte in Korea. Hospira's obligation to pay royalties on sales of Hextend will expire in the United States or Canada when all patents protecting Hextend in the applicable country expire and any third party obtains certain regulatory approvals to market a generic equivalent product in that country. Our current patents will begin to expire in 2019. CJ's obligation to pay royalties on sales of Hextend and PentaLyte, respectively, will expire when the patents protecting those products in South Korea expire. Although a number of other pharmaceutical companies have expressed their interest in obtaining licenses to manufacture and market our products in other countries, we might not be successful in negotiating other licensing arrangements. If licensing or manufacturing arrangements cannot be made on acceptable terms, we will have to construct or acquire our own manufacturing facilities and establish our own marketing organization, which would entail significant expenditures of time and money.

**Table of Contents**

***Our Business Could Be Adversely Affected If We Lose the Services Of The Key Personnel Upon Whom We Depend***

During 2003, we lost our Chairman and Chief Executive Officer, Paul Segall, who passed away in June. Following the passing of Dr. Segall, we formed the Office of the President, a three-person executive office comprised of the three remaining founders: Dr. Hal Sternberg, Dr. Harold Waitz, and Judith Segall. The Office of the President is charged with assuming those executive duties previously attended to by Dr. Segall. We believe that the Office of the President has provided a smooth management transition without entailing additional operating costs. So long as the Office of the President meets our needs, we will defer appointing a new chief executive officer until our cash flow improves and we have sufficient capital to finance the additional executive compensation expenses. It is not possible to determine what impact, if any, this will have on our operations. Scientific concerns, such as product development and laboratory research, will continue to be addressed primarily by Dr. Sternberg, the Vice-President of Research, who worked very closely with Dr. Segall for many years on all matters of scientific importance and strategy.

The loss of the services of any of our other executive officers could have a material adverse effect on us. We do not presently have long-term employment agreements with any of our executive officers because our present financial situation precludes us from making long-term compensation commitments in amounts commensurate with prevailing salaries of executive officers of similar companies in the San Francisco Bay Area. This may also limit our ability to engage a new Chief Executive Officer.

**Risks Related to Our Industry**

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

***If We Do Not Receive FDA and Other Regulatory Approvals We Will Not Be Permitted To Sell Our Products***

The 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. We are conducting a Phase II clinical trial of PentaLyte to demonstrate that PentaLyte can be used safely and effectively as a plasma volume expander in surgery.

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. We plan to spend at least \$1,000,000 for Phase II clinical trials of PentaLyte. However, the full cost of completing a Phase II clinical trial and future Phase III clinical trials necessary to obtain FDA approval of PentaLyte cannot be presently determined and may exceed our 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.

**Table of Contents*****Our Patents May Not Protect Our Products From Competition***

We have patents in the United States, Canada, several countries of the European Union, Australia, Israel, Russia, South Africa, South Korea, Japan, China, Hong Kong, Taiwan and Singapore, and have filed patent applications in other foreign countries for certain products, including Hextend, HetaCool, and PentaLyte. 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. Also, 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. The costs required to uphold the validity and prevent infringement of any patent issued to us could be substantial, and we might not have the resources available to defend our patent rights.

***The Price and Sale of Our Products May Be Limited By Health Insurance Coverage And Government Regulation***

Success in selling our 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***

Before purchasing BioTime 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 a Drug Development Company, The Price Of Our Stock May Rise And Fall Rapidly***

The market price of BioTime shares and warrants, like that of the shares of many biotechnology companies, has been highly volatile. The price of BioTime 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 BioTime 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. In addition, the stock market has experienced and continues to experience extreme price and volume fluctuations which have affected the market price of the equity securities of many biotechnology companies and which have often been unrelated to the operating performance of these companies. Broad market fluctuations, as well as general economic and political conditions, may adversely affect the market price of the common shares and warrants.

***The Common Shares and Warrants Are Subject to the So-Called Penny Stock Rules That Impose Restrictive Sales Practice Requirements***

The common shares and warrants are subject to the so-called penny stock rules that impose restrictive sales practice requirements on broker-dealers who sell penny stocks to persons other than established customers and accredited investors. An accredited investor generally is a person who has a net worth in excess of \$1,000,000 or individual annual income exceeding \$200,000, or joint annual income with a spouse exceeding \$300,000. For transactions covered by this rule, the broker-dealer must make a special suitability determination for the purchaser and must have received the purchaser's written consent to the transaction prior to sale.

**Table of Contents**

This means that delisting could affect the ability of shareholders to sell their common shares and warrants in the secondary market.

The Securities and Exchange Commission (the Commission) has adopted regulations that define a penny stock to be any equity security that has a market price of less than \$5.00 per share or an exercise price of less than \$5.00 per share, subject to certain exceptions. If a transaction involving a penny stock is not exempt from the Commission's rule, a broker-dealer must deliver a disclosure schedule relating to the penny stock market to the investor prior to a transaction. The broker-dealer also must disclose the commissions payable to both the broker-dealer and the registered representative, current quotations for the penny stock, and, if the broker-dealer is the sole market-maker, the broker-dealer must disclose this fact and the broker-dealer's presumed control over the market. Finally, monthly statements must be sent disclosing recent price information for the penny stock held in the customer's account and information on the limited market in penny stocks.

***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 BioTime 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 and State Securities Laws.***

A registration statement under the Securities Act of 1933, as amended, 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 post-effective amendments and by filing our annual report on Form 10-K, our quarterly reports on Form 10-Q, and current reports on Form 8-K as required under the Securities Exchange Act of 1934, as amended. 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 would not be able to exercise their warrants, even if the market price of our common shares was then greater than the exercise price. Most states will also 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.

## **THE RIGHTS OFFER**

### **Issuance of Rights**

We are issuing rights to subscribe for units consisting of common shares and warrants. The rights will be issued to shareholders who owned BioTime shares as of the close of business on \_\_\_\_\_, 2005, which has been set as the record date. Beneficial owners of shares held in the name of Cede & Co. as nominee for The Depository Trust Company, or in the name of any other depository or nominee, on the record date will also receive rights. Each shareholder will be issued one transferable right for each common share owned on the record date. No fractional rights will be issued. The rights entitle the holders to acquire one common share and one warrant for each five rights held by paying the subscription price. Any shareholder who is issued fewer than five rights may subscribe for one unit at the subscription price. The rights will be evidenced by subscription certificates (see Appendix A) which will be mailed to shareholders other than foreign shareholders whose record addresses are outside the United States. The United States includes the fifty states, the District of Columbia, U.S. territories and possessions.

The rights issued to foreign shareholders will be held by the subscription agent for their accounts until instructions are received to exercise (if permissible under applicable foreign or state securities laws), sell, or transfer those rights. If no instructions have been received by 12:00 noon, New York City time, three business days prior to the expiration date, the subscription agent will use its best efforts to sell the rights of those foreign

## **Table of Contents**

shareholders in the over-the counter market. The net proceeds from the sale of those rights will be paid to the foreign shareholders. See **Sale of Rights**.

Any common shares acquired by officers, directors and other persons who are affiliates of BioTime, as that term is defined under the Securities Act of 1933, may only be sold in accordance with Rule 144 under the Securities Act or pursuant to an effective registration statement under the Securities Act. In general, under Rule 144, as currently in effect, an affiliate of BioTime is entitled to sell, within any three-month period, a number of shares that does not exceed the greater of 1% of the then-outstanding common shares or the average weekly reported trading volume of the common shares during the four calendar weeks preceding such sale. Sales under Rule 144 are also subject to certain restrictions on the manner of sale, to notice requirements and to the availability of current public information about BioTime.

### **Purpose of the Rights Offer**

The Board of Directors of BioTime has determined that it is necessary for BioTime to raise additional capital at this time to finance its operations, including:

Costs of conducting additional clinical trials of BioTime products;

Costs of seeking regulatory approval of our products;

Continued research and product development; and

General and administrative expenses.

Until we begin to receive sufficient revenues from product sales and licensing fees from Hospira and CJ or other companies that may obtain a license to sell our products, we will have to finance our operations with our cash on hand, the funds received from shareholders who exercise their rights, and any additional capital raised through other sales of equity securities.

The rights offer provides an opportunity for us to raise additional capital without diluting the ownership interests of existing shareholders who exercise their rights. Shareholders who exercise their rights will be able to purchase BioTime shares at a price below market, without incurring broker's commissions. Generally, shareholders who exercise their rights in full will be able to maintain their prorata share of BioTime's outstanding common shares. However, shareholders will experience some dilution to their percentage interests in BioTime by virtue of the warrants issuable to the Guarantors. In this regard, we will issue 600,000 warrants to the Guarantors as compensation under the Standby Purchase Agreement. Also, if the rights offer is oversubscribed and BioTime issues additional common shares and warrants to fill over-subscriptions, shareholders who do not purchase their prorata portion of those additional shares and warrants through the over-subscription privilege would experience a reduction in their percentage interests in BioTime's outstanding shares. Similarly, shareholders who do not exercise their warrants in full could experience a reduction of their percentage interests in BioTime's outstanding shares if other warrant holders exercise their warrants. The distribution of the rights to shareholders will also afford those shareholders who choose not to exercise their rights the potential of receiving a cash payment upon the sale of their rights. Therefore, the receipt of rights by shareholders who choose not to exercise their rights may be viewed as compensation for the possible dilution of their interest in BioTime.

We considered other financing alternatives, including a private placement or underwritten public offering of newly issued shares. Those alternatives would have entailed the payment of commissions and fees to broker-dealers in an amount greater than the \$132,000 of cash fees we will pay the Guarantors. A private placement or underwritten public offering would also have been more dilutive to BioTime shareholders because all of the shares could have been sold to new investors. In the case of a private placement, the sale would probably have been made at a discount to market. In contrast, the sale of shares through the rights and warrants will permit BioTime to incur lower transaction fees in raising capital and will permit the shareholders who exercise their rights and warrants to enjoy the price discount that might otherwise have been realized by new investors. During December 2003 and January 2004, January and February 1997, and February and March 1999,



**Table of Contents**

BioTime conducted similar subscription rights offers that were over-subscribed, leading BioTime to conclude that the rights offer might be a better alternative to the other sources of financing.

In determining the subscription price of the rights we considered the financial condition of BioTime, the price range at which BioTime common shares have traded during recent weeks, the volatility of the price of the common shares, the discounts to the market price and additional broker-dealer or underwriting costs that we would likely have to incur if we were to sell shares in a private placement or an underwritten public offering, and the discounts we allowed in our two previous rights offers. We determined that the subscription price is fair to us and to our shareholders in that it allows our shareholders to realize the economic benefits that might otherwise have been offered to new investors and broker-dealers, while providing us with approximately the same amount of net capital that we would have received through alternative financing arrangements.

The factors that we considered in determining the subscription price of the rights were also considered in determining the exercise price of the warrants. The warrants are intended to serve as a future source of new capital that we can receive without additional broker-dealer, underwriting, and other transactional costs. We adjusted the price to a premium over the current and recent market price of the common shares to reduce the dilution that will result when the warrants are exercised. Dilution will result from the exercise of the warrants because warrant holders will not exercise the warrants unless the market price of our common shares is greater than the exercise price of the warrants. To further limit future dilution, we made the warrants redeemable when the market price of the common shares exceeds 200% of the exercise price for 20 consecutive trading days. We also felt that the warrants will provide an extra incentive for our shareholders to exercise their rights and to continue to participate as equity holders in our company. The exercise price of the new warrants is the same as the exercise price of the warrants we issued through our last subscription rights offer.

**The Subscription Price**

The subscription price for the units to be issued pursuant to the rights offer is \$0.50. We announced the rights offer on \_\_\_\_\_, 2005. The high and low bid price of the common shares on the OTCBB on \_\_\_\_\_, 2005 and \_\_\_\_\_, 2005 was \$ \_\_\_\_\_ and \$ \_\_\_\_\_, respectively.

**Expiration of the Rights Offer**

The rights offer will expire at 5:00 p.m., New York City time, on \_\_\_\_\_, 2005, the expiration date. Rights will expire on the expiration date and may not be exercised after that date.

**Exercise of Rights**

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

Fill in and sign the reverse side of the subscription certificate which accompanies this prospectus;

Deliver the completed and signed subscription certificate to the subscription agent with your payment in full for the units you wish to purchase. You may use the enclosed envelope to mail the subscription certificate and payment to the subscription agent or you may arrange for one of the alternative methods of delivery described below.

The method of making payment for your units is described below under Payment for Units.

Properly completed and executed subscription certificates must be received by the subscription agent at the offices of the subscription agent at the address set forth below prior to 5:00 p.m., New York City time, on the expiration date, unless delivery is effected by guaranteed delivery as described below under Payment for Units.

Rights may also be exercised through a broker, who may charge you a servicing fee.



**Table of Contents**

You should send your signed subscription certificates, accompanied by payment of the subscription price, to American Stock Transfer & Trust Company, the subscription agent, by one of the methods described below:

**(1) By hand:**

American Stock Transfer & Trust Company  
Attn: Reorganization Department  
59 Maiden Lane, Plaza Level  
New York, New York 10038

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

American Stock Transfer & Trust Company  
Operations Center  
Attn: Reorganization Department  
6201 15<sup>th</sup> Avenue  
Brooklyn, New York 11219

**(3) By facsimile (telecopier):**

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