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 (State or other jurisdiction of incorporation or organization)

94-3127919 (I.R.S. Employer Identification Number)

935 Pardee Street Berkeley, California 94710 (510) 845-9535 (Address, including zip code, and telephone number, including area code, of Registrant's principal executive offices)

Paul E. Segall, Chief Executive Officer BioTime, Inc. 935 Pardee Street Berkeley, California 94710 (510) 845-9535 (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
250 Montgomery Street, Suite 500 San Francisco, California 94104 Tel. (415) 421-5300

 $\label{lem:proximate} \mbox{ Approximate date of commencement of proposed sale to the public: As soon as practicable after this Registration Statement becomes effective.}$ 

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

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

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

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

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

#### 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(2)	501,629	\$12.34	\$6,190,101.86	\$1,826.08
Common Share Subscription Rights	10,032,579			
Common Shares, no par value(3)	250,000	\$12.34	\$3,085,000.00	\$910.08
Total Registration Fee				\$2,736.16

- (1) Estimated solely for the purpose of calculating the registration fee.(2) Issuable upon exercise of the Common Share Subscription Rights.
- (3) Issuable to fill Excess Over-Subscriptions.

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its Effective Date until the Registration Statement 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.

BIOTIME, INC.

#### 501,629 COMMON SHARES

#### Issuable Upon the Exercise of Subscription Rights

BioTime, Inc. (the "Company" or "BioTime") is issuing new securities called "Rights." Holders of the Rights will be entitled to subscribe for and purchase up to an aggregate of 501,629 BioTime common shares, no par value ("Common Shares"). The Rights will be issued to BioTime shareholders of record ("Record Date Shareholders"), as of the close of business on January 5, 1999 (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 will also be considered shareholders of record and they will receive Rights if they are Record Date Shareholders. Each Record Date Shareholder will receive one Right for each Common Share owned on the Record Date. The Rights will entitle the holder to subscribe for and purchase from the Company one new Common Share for every 20 Rights held (the "Primary Subscription"). The Company plans to offer up to 501,629 Common Shares through the Primary Subscription at a subscription price of \$\_\_\_\_\_ per Common Share (the "Subscription Price"). The Subscription Price per Common Share will be not greater than 66.67% of the average of the last sale price of the Common Shares in the Nasdaq National Market for the last five trading days preceding the commencement of the Offer. Record Date Shareholders who fully exercise their Rights will be entitled to the additional privilege of subscribing for and purchasing, subject to certain limitations and subject to allocation, any Common Shares not acquired by other holders of Rights in the Primary Subscription (the "Over-Subscription Privilege"). If subscriptions for Common Shares through the Over-Subscription Privilege exceed the number of Common Shares available for sale after the Primary Subscription ("Excess Over-Subscriptions"), the Company may issue up to 250,000 additional Common Shares to fill of all or a portion of the Excess Over-Subscriptions. The issuance of Common Shares to fill Excess Over-Subscriptions may dilute the percentage o

The Company is issuing the Rights to raise additional capital without diluting the ownership interests of existing shareholders who exercise their Rights, and without paying underwriting commissions and expenses. Shareholders who exercise their Rights in the Offer will be able to purchase shares at a price below market, without incurring broker's commissions. Generally, shareholders who exercise their Rights in full in the Primary Subscription will be able to maintain their pro rata share of the Company's outstanding Common Shares. However, if the Offer is oversubscribed and the Company issues additional Common Shares to fill Excess Over-Subscriptions, shareholders who do not purchase their pro rata portion of those additional shares through the Over-Subscription Privilege would experience a reduction in their percentage interests in the Company's outstanding shares.

THE OFFER, WHICH INCLUDES THE PRIMARY SUBSCRIPTION AND THE OVER-SUBSCRIPTION PRIVILEGE, WILL EXPIRE AT 5:00 P.M. NEW YORK CITY TIME ON \_\_\_\_\_, 1999 (the "Expiration Date"). Upon completion of the Offer, Record Date Shareholders who do not fully exercise their Rights should expect to own a smaller proportional interest in the Company than before the Offer.

The Common Sh	ares are aut	horized for	trading	on the Na	sdaq Nati	ional Ma	arket
("Nasdaq") under	the symbol	BTIM. The	Rights	will be	transferal	ole and	l are
expected to be a	pproved for	trading o	n Nasdaq	under th	e symbol	BTIMR.	The
Company announced	the Offer on	December _	, 1998	. The last	reported	sale pr	ices
of a Common Share	on Nasdaq on	December _	, 1998	and on		1999 v	vere
\$, and \$,	respectively						

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 10

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.

	Price to the Public	Proceeds to the Company (1)
Per Share	\$	\$
Total (2)	\$ ====================================	\$

- (1) Before deducting expenses of the Offering which are estimated to be \$\_\_\_\_\_. No underwriting discounts or commissions will be paid.
- (2) Assumes all of the Rights are exercised. Does not include any proceeds that may be received by the Company if additional Common Shares are issued to fill Excess Over-Subscriptions. The date of this Prospectus is December \_\_\_\_\_, 1998

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#### PROSPECTUS SUMMARY

The following summary is qualified in its entirety by the more detailed information and financial statements appearing 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. See "Risk Factors."

#### The Company

BioTime, Inc. (the "Company" or "BioTime") is developing aqueous based 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 decreased blood volume resulting from blood loss in surgical or trauma patients. We are developing products that may be used in large volumes, especially when 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 replacement solution that would be used for the replacement of a patient's circulating blood volume during cardiac surgery, neurosurgery and other surgeries that involve lowering the patient's body temperature.

Our first three blood volume replacement products are Hextend, (R) Pentalyte, (R) and HetaCool.TM Hextend is our proprietary hetastarch-based synthetic blood plasma volume expander designed especially to treat loss of volume in surgery and trauma care patients. Pentalyte is our proprietary pentastarch-based synthetic plasma expander designed especially for use when a faster elimination of the starch component is desired and acceptable. Although Hextend can be used in these cases, some physicians appear to prefer a solution which could be metabolized faster and excreted earlier when the longer term protection provided by Hextend is not required. HetaCool is a modified formulation of Hextend and is specifically designed for use at low temperatures.

Hextend, PentaLyte and HetaCool have been formulated to maintain the patient's tissue and organ function by sustaining the patient's fluid volume and physiological balance. Other products (known as colloid and crystalloid solutions) are being marketed by other companies for use in maintaining patient fluid volume in surgery and trauma care, but the use of those solutions can contribute to patient morbidity, including conditions such as hypovolemia, edema, impaired blood clotting, acidosis, and other biochemical imbalances. Hextend, PentaLyte, and HetaCool contain ingredients that may prevent or reduce the physiological imbalances that can cause those problems. Albumin produced from human plasma is expensive and subject to supply shortages, and a recent United States Food and Drug Administration ("FDA") warning has cautioned physicians about the risk of administering albumin to seriously ill patients.

During March 1998, we completed the submission of a New Drug Application ("NDA") to the FDA, seeking approval to market Hextend in the United States. The FDA has completed its review of our NDA, and during November 1998 we received an

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action letter from them requesting several clarifications. We have responded to the FDA's request and are presently awaiting their approval.

The NDA includes data from our Phase III clinical trials, in which the primary endpoints were successfully met when Hextend was used as a plasma volume expander in surgery. An important goal of the Hextend development program was to produce a product that can be used in multi-liter volumes to treat patients who have lost a large volume of blood. An average of 1.6 liters of Hextend was used in the clinical trials, and volumes ranging from two to five liters were used in some of the higher blood loss cases. The safety related secondary endpoints targeted in the study included those involving coagulation. We believe that the low incidence of adverse events related to blood clotting in the Hextend patients demonstrates that Hextend may be safely used in large amounts. However, the FDA will make its own evaluation of the clinical trial data and there is no assurance that the FDA will approve the Company's NDA.

On April 23, 1997, BioTime and Abbott Laboratories ("Abbott") entered into a License Agreement under which we granted to Abbott an exclusive license to manufacture and sell Hextend in the United States and Canada for all therapeutic uses other than those involving hypothermic surgery, or the replacement of substantially all of a patient's circulating blood volume. We still retain all rights to manufacture, sell or license Hextend and other products in all other countries.

Under the License Agreement, Abbott agreed to pay BioTime up to \$40,000,000 in license fees based upon product sales and the achievement of certain milestones. So far, we have received \$1,650,000 of license fee milestone payments. In addition to the license fees, Abbott will pay us a royalty on annual net sales of Hextend. The royalty rate will be 5% plus an additional .22% for each \$1,000,000 of total annual net sales, up to a maximum annual royalty rate of 36%. The royalty rate for each year will be applied on a total net sales basis so that once the highest royalty rate for a year is determined, that rate will be paid with respect to all sales for that year. Abbott'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. Abbott also agreed to manufacture Hextend for sale by BioTime in the event that Abbott's exclusive license is terminated prior to expiration.

In order to preserve its rights to obtain an exclusive license for PentaLyte under the License Agreement, Abbott notified us that Abbott will supply BioTime with batches of PentaLyte, characterization and stability studies, and other regulatory support needed for BioTime to file for an Investigation New Drug application ("IND") and to conduct clinical studies.

We plan to enter global markets through licensing agreements. We are in various stages of negotiations to license our products with pharmaceutical companies outside the United States and Canada. By licensing our products abroad, we will avoid the capital costs and delays inherent in acquiring or establishing our own pharmaceutical manufacturing facilities and establishing an international marketing organization. We met with representatives of Nihon Pharmaceutical Company, Ltd. ("Nihon") in Japan to discuss the development of BioTime products for the Japanese market, and the development of a clinical trial program to obtain

language regulatory approval. Nihon proviously signed a letter of intent to

Japanese regulatory approval. Nihon previously signed a letter of intent to negotiate a licensing agreement to manufacture and market our products in Japan. Nihon is a subsidiary of Takeda Chemical Industries, Japan's largest pharmaceutical manufacturer.

We are also pursuing a global clinical trial strategy, the goal of which is to permit BioTime to obtain regulatory approval for its products as quickly and economically as practicable. For example, the United States Phase III clinical trials of Hextend involved 120 patients and were completed in less than 12 months. Although regulatory requirements vary from country to country, we may be able to file applications for foreign regulatory approval of our products based upon the results of the United States clinical trials. Based upon discussions with the Canadian Bureau of Pharmaceutical Assessment, we plan to file for Canadian market approval based upon the results of our United States clinical trials. Regulatory approvals for countries that are members of the European Union may be obtained through a mutual recognition procedure. We plan to determine whether one or more member nations will accept an application based upon the United States clinical trials. If approvals based upon those trials can be obtained in the requisite number of member nations, then we would be permitted to market Hextend in all 16 member nations.

We plan to conduct a pilot study of the use of Hextend to treat hypovolemia in geriatric patients undergoing high blood loss surgery. This new clinical trial will be a double blind study designed to compare Hextend with a hetastarch in saline solution and is intended to confirm and expand upon the results of the United States Phase III trials. This pilot study may be used to design larger scale trials that may be needed to obtain regulatory approval in Western Europe. Approximately 62 patients 65 years of age or older will be studied. The geriatric population generally experiences a higher degree of inter-operative and post-operative mortality and morbidity than younger patients undergoing similar major surgery. We believe that in a study involving geriatric patients the advantages of Hextend will most clearly and consistently be seen. We received permission to conduct the study from the Department of Health, Medicines Control Agency of the United Kingdom based upon our Clinical Trials Exemption notification. The trial will be conducted at the Middlesex and Royal Free Hospitals of the University College London Hospitals in London, England, where it has been approved by the institutional review board.

BioTime was incorporated under the laws of the State of California on November 30, 1990. The Company's principal office is located at 935 Pardee Street, Berkeley, California 94710. Its telephone number at such office is (510) 845-9535.

Hextend(R) and PentaLyte(R) are registered trademarks, and HetaCoolTM is a trademark, of BioTime, Inc.

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#### Purpose of the Offer

The Board of Directors of the Company has determined that it is necessary for the Company to raise additional capital at this time to finance its including the costs of conducting additional clinical trials of operations, Hextend, clinical trials of HetaCool, and initial clinical trials of Pentalyte, costs associated with seeking foreign regulatory approval of Hextend, continued research and product development, and general and administrative expenses. The FDA has completed its review of our NDA for Hextend, and during November 1998 we received an action letter from them requesting several clarifications. We have responded to the FDA's request and are presently awaiting their approval. Abbott Laboratories has the exclusive right to market Hextend in the United States following FDA approval, but several months will elapse between the commencement of marketing and the payment of royalties and licensing fees on the sale of Hextend by Abbott Laboratories or other companies that may obtain a license to sell our products. Until BioTime begins to receive sufficient revenues from product sales and licensing fees, we will have to finance our operations with capital raised through the sale of equity securities.

We are issuing the Rights to raise additional capital without diluting the ownership interests of existing shareholders who exercise their Rights (except to the extent that the Company issues additional Common Shares to fill Excess Over-Subscriptions), and without paying underwriting commissions and expenses. Shareholders who exercise their Rights in the Offer will be able to purchase shares at a price below market, without incurring broker's commissions. Generally, shareholders who exercise their Rights in full in the Primary Subscription will be able to maintain their pro rata share of the Company's outstanding Common Shares. However, if the Offer is oversubscribed and the Company issues additional Common Shares to fill Excess Over-Subscriptions, shareholders who do not purchase their pro rata portion of those additional shares through the Over-Subscription Privilege would experience a reduction in their percentage interests in the Company's outstanding shares. The distribution of the Rights to Record Date Shareholders will also afford those Record Date Shareholders who choose not to exercise their Rights the potential of receiving a cash payment upon the sale of such Rights. Therefore, the receipt of Rights by Record Date Shareholders who chose not to exercise their Rights may be viewed as compensation for the possible dilution of their interest in the Company.

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#### Terms of The Offer

Subscription Price .... The subscription price per Common Share (the "Subscription Price") will be \$\_\_\_\_\_.

Over-Subscription

Privilege .... Record Date Shareholders who fully exercise their Rights will be entitled to the additional privilege of subscribing for and purchasing, subject to certain limitations and subject to allocation, any Common Shares not acquired by other holders of Rights in the Primary Subscription (the "Over-Subscription Privilege"). See "The Offer--Over-Subscription Privilege." If subscriptions for Common Shares through the Over-Subscription Privilege exceed the number of Common Shares available for sale after the Primary Subscription ("Excess Over-Subscriptions"), BioTime may issue up to 250,000 additional Common Shares to fill all of or a portion of the Excess Over-Subscriptions. The Company will not be obligated to issue any Common Shares to fill Excess Over-Subscriptions, but it may do so in its sole and absolute discretion. The Company reserves the right to limit the number of Common Shares issued to fill an Excess Over-Subscription from any single shareholder (or shareholders that are known or believed by the Company to be under common control or acting as a group for the purpose of acquiring Common Shares).

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How to Exercise Rights .... The Rights will be evidenced by Subscription

Certificates, which will be distributed to Record Date Shareholders, and may be exercised by completing the Subscription Certificate and delivering it, together with payment of the Subscription Price, to the Subscription Agent, American Stock Transfer & Trust Company, 40 Wall Street, New York, New York 10005. Payment may be made either by check drawn on a United States bank, or by notice of guaranteed delivery (as explained under "The Offer--Payment for Shares"). Rights must be exercised no later than the Expiration Date. Rights holders may not rescind a purchase after exercising their Rights.

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 Nasdaq trades. The Rights are expected to be authorized for trading on Nasdaq. Trading of the Rights will be conducted on a regular-way basis from \_\_\_\_\_\_\_, 1999 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. The Company 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.

Participation by Officers, Directors and Certain

Financial Consultants .... Officers, directors, and certain financial consultants of the Company who own, in the aggregate 2,341,989 Common Shares, have informed the Company that they intend to purchase in the Primary Subscription up to 117,099 Common Shares through the exercise of Rights distributed to them in the Offer, provided that suitable financial arrangements can be made, but they are not legally bound to do so.

Foreign Restrictions .... Subscription Certificates will not be mailed to Record Date Shareholders whose addresses of record are outside the United States ("Foreign Record Date Shareholders"). The Rights to which such Subscription Certificates relate will be held by the Subscription Agent for such Foreign Record Date Shareholders' accounts until instructions are received to exercise, sell or transfer the Rights. If no instructions are received by \_\_\_\_\_, New York time on \_\_\_\_\_\_, 1999 (three Business Days prior to the Expiration Date), the Subscription Agent will use its best efforts to sell the Rights of such Foreign Record Date Shareholders. The net proceeds, if any, from such a sale will be remitted to the Foreign Record Date Shareholders on a pro rata basis. See "The Offer--Foreign Shareholders."

Important Dates to Remember Record Date: January 5, 1999  Expiration Date:, 1999  Last Date of Guaranteed  Delivery:, 1999
Amendment, Extension or Termination of the Offer The Company reserves the right, in its sole discretion, to: (a) terminate the Offer prior to delivery of the Common Shares for which Rights holders have subscribed pursuant to the exercise of Rights in the Primary Subscription or the Oversubscription Privilege; (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 Offer.
Risk Factors An investment in the Common Shares involves a high degree of risk. The Common Shares should be purchased only by investors who can afford the loss of their entire investment. See "Risk Factors."
Use of Proceeds To finance additional clinical trials of Hextend and clinical trials of HetaCool and PentaLyte; to finance further research and development of BioTime products; and for working capital. See "Use of Proceeds."
Nasdaq Symbol The Common Shares are traded under the symbol "BTIM" and the Rights are expected to trade under the symbol "BTIMR."

#### RISK FACTORS

AN INVESTMENT IN THE COMMON SHARES INVOLVES A HIGH DEGREE OF RISK. THE COMMON SHARES SHOULD BE PURCHASED ONLY BY INVESTORS WHO CAN AFFORD TO LOSE THEIR ENTIRE INVESTMENT. BEFORE DECIDING TO PURCHASE ANY OF THE COMMON SHARES OFFERED HEREBY, PROSPECTIVE INVESTORS SHOULD CONSIDER THE FOLLOWING FACTORS WHICH COULD MATERIALLY ADVERSELY AFFECT THE PROPOSED OPERATIONS AND PROSPECTS OF THE COMPANY AND THE VALUE OF AN INVESTMENT IN THE COMPANY. 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.

#### Development Stage Company

BioTime is in the development stage. This means that we are still conducting research and developing our products, and we have not generated significant revenues. We have not yet received FDA approval to sell any of our products. Because BioTime is still developing our products and waiting for FDA approval, BioTime will sustain additional operating losses. There is no assurance that the Company will generate sufficient revenues from the sale or licensing of its products and technologies to be profitable. We cannot be sure when we will start receiving revenues from product sales because:

- o Our products are not yet on the market;
- Our products cannot be sold until the products are approved by the FDA and foreign regulatory authorities;
- o It often takes many months to obtain FDA approval of a new product; and
- o It can take several months for a pharmaceutical company to introduce a new product to the market.

#### Additional Financing Required

We believe that our cash on hand will be sufficient to permit BioTime to continue in operation for at least 12 months. We need the proceeds from the offering to continue to finance our operations for a longer period of time. We may need to raise additional capital after the Offer to pay operating expenses until such time as we are able to generate sufficient revenues from product sales, royalties, and license fees. There can be no assurance that we will be able to raise additional funds on favorable terms or at all, or that such funds, if raised, will be sufficient to permit BioTime to develop and market its products. Unless the Company is able to generate sufficient revenue or raise additional funds when needed, it is likely that it will be unable to continue its planned activities, even if it is making progress with its research and development projects.

#### Uncertainty of Future Sales; Competition

Our ability to generate operating revenue depends upon our success in developing and marketing our products. There can be no assurance that any products that receive FDA or foreign regulatory approval will be successfully marketed or that we will receive sufficient revenues from product sales to meet our operating expenses. The acceptance of the Company's products and technologies by the medical profession may take time to develop because 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.

Our plasma expander products will compete with other products, including albumin and other colloid solutions, and crystalloid solutions. Some of these products, in particular crystalloid solutions, are commonly used in surgery and trauma care and sell at low prices. In order to compete with other products, particularly those that sell at lower prices, BioTime products will have to provide medically significant advantages. The competing products are being manufactured and marketed by established pharmaceutical companies with more resources than BioTime. For example, DuPont Pharmaceuticals presently markets Hespan, an artificial plasma volume expander, and Viaspan, a solution for use in the preservation of kidneys, livers and pancreases for surgical transplant. Abbott manufactures and sells a generic equivalent of Hespan. There also is a risk that the Company's competitors may succeed in developing safer or more effective products that could render our products and technologies obsolete or noncompetitive.

Uncertainty as to Human Application of Products

Although we believe that our Phase III clinical trials show that Hextend is safe for use in human medicine, there is no assurance that the FDA will reach the same conclusion. BioTime's other experimental products and technologies have not been applied in human medicine and have only been used in laboratory studies on animals and there can be no assurance that those products will prove to be safe and efficacious in the human medical applications for which they were developed.

FDA and Other Regulatory Approvals Required

The products that we develop cannot be sold until the FDA and corresponding foreign regulatory authorities approve the products for medical use. This means that:

- We will have to conduct expensive and time consuming clinical trials of new products;
- We will incur the expense and delay inherent in seeking FDA approval of new products;
- o A product that is approved may be subject to restrictions on use;
- o The FDA can recall or withdraw approval of a product if problems arise; and
- o We will face similar regulatory issues in foreign countries.

In order to obtain FDA and foreign regulatory approval of a new product, we will have to conduct laboratory tests and "clinical trials" in which the effect of the product in human patients is studied. The purpose of regulatory review is to assure that a new product is safe and effective. It can take several years to complete the tests required by the FDA and foreign regulators. It is also very expensive to conduct the tests and to prepare the applications required to obtain legal approval to sell a new product. The manner in which each product is manufactured and marketed will also be subject to review and approval by the FDA.

The data obtained from laboratory tests and clinical trials must be reviewed and interpreted by the FDA. That process often takes many months, and the FDA can deny regulatory approval if it determines that the data does not show that the product is safe and effective for its intended use. In addition, delays or rejections may be encountered as a result of changes in FDA policy. Similar delays may also be encountered in foreign countries. There can be no assurance that, even after substantial expenditures of time and money, regulatory approval will be obtained for any products developed by the Company. Even if regulatory approval of a product is granted, such approval may entail limitations on the indicated uses for which the product may be marketed.

The FDA continues to review approved products, and the manufacturer and manufacturing facilities. The FDA can impose restrictions on a product or the FDA may order the withdrawal of the product from the market, if previously unknown problems with a product, manufacturer, or manufacturing facility are discovered. Failure to comply with the applicable regulatory requirements can, among other things, result in fines, suspensions of regulatory approvals, product recalls, operating restrictions and criminal prosecution. Additional government regulation may be established which could prevent or delay regulatory approval of the Company's products.

Uncertainty as to Results of Research and Development of New Products

We are attempting to develop new medical products and technologies. Such experimentation is inherently costly, time consuming and uncertain as to its results. 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. From the date of the Company's inception through September 30, 1998, we spent \$10,638,545 on research and development, and we expect to continue to incur substantial research and development expenses.

Absence of Manufacturing and Marketing Capabilities

The Company presently does not have adequate facilities or resources to manufacture its products and the hydroxyethyl starches used in its products. We plan to enter into arrangements with pharmaceutical companies for the production and marketing of BioTime products. We have granted Abbott an exclusive license to manufacture and market Hextend in the United States and Canada. Although a number of other pharmaceutical companies have expressed their interest in obtaining licenses to manufacture and market BioTime products in other countries, there can be no assurance that we will be successful making 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 to establish our own marketing organization, which would entail significant expenditures of time and money.

#### Uncertainty of Patent Protection

BioTime has patents in the United States, Israel, and South Africa, and has filed patent applications in other foreign countries, for certain products, including Hextend, HetaCool, and PentaLyte. No assurance can be given that any additional patents will be issued to us, or that, if issued, those patents will provide the Company with meaningful patent protection, or that others will not successfully challenge the validity or enforceability of any patent issued to the Company. The costs required to uphold the validity and prevent infringement of any patent issued to the Company could be substantial, and we might not have the resources available to defend our patent rights.

#### Uncertainty of Health Care Reimbursement and Reform

Success in selling the Company's 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. There can be no assurance that adequate health insurance, HMO, and government coverage will be available to permit our products to be sold at prices high enough for us to generate a profit. In some foreign countries, pricing or profitability of health care products is subject to government control. 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.

#### Dependence Upon Key Personnel

The Company depends to a considerable degree on the continued services of its executive officers. Although the Company maintains key man life insurance in the amount of \$1,000,000 on the life of Dr. Paul Segall, the loss of the services of any of the executive officers could have a material adverse effect on the Company. In addition, our success will depend, among other factors, upon successful recruitment and retention of additional highly skilled and experienced management and technical personnel.

#### Year 2000 Considerations

Because we do not have our own pharmaceutical production facilities, we will rely upon Abbott and others to manufacture and distribute our products. If year 2000 problems were to impede the ability of those companies to manufacture and distribute our products or to provide raw materials used in the manufacture of our products, our future sales could be adversely affected. We do not have a contingency plan to address those problems if they were to arise, and we may not be able to replace Abbott or any other company that may obtain a license to manufacture and distribute our products. Abbott has announced the implementation of a program to assess and remedy any year 2000 problems that may affect its operations, and has asked its key suppliers to certify that their systems are year 2000 compliant. The results of the year 2000 compliance programs implemented by Abbott and its suppliers are not presently known.

#### No Dividends

The Company has not paid any cash dividends on its Common Shares. For the foreseeable future we anticipate that any earnings generated in our business will be used to finance the growth of the Company and that cash dividends will not be paid to holders of Common Shares.

### Possible Volatility of Market for Common Shares

The Common Shares are traded on Nasdaq. The market price of the Common Shares, like that of the common stock of many biotechnology companies, has been highly volatile. The price of such securities 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 remains uncertain. Similarly, prices of such securities may fall rapidly in response to certain events such as unfavorable results of clinical

trials or a delay or failure to obtain FDA approval. In the event that the Company achieves earnings from the sale of products, securities analysts may begin predicting quarterly earnings. The failure of the Company's earnings to meet analysts' expectations could result in a significant rapid decline in the market price of the Company's Common Shares. 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. Such broad market fluctuations, as well as general economic and political conditions, may adversely affect the market price of the Common Shares.

#### Requirements for Continued Listing of Securities on Nasdaq

The Company's Common Shares are traded on the Nasdaq National Market, which has adopted rules that establish criteria for initial and continued listing of securities. Under the Nasdaq rules for continued listing, a company must maintain at least \$4,000,000 of net tangible assets, or at least \$50,000,000 of total assets, or a market capitalization of at least \$50,000,000, or to have generated at least \$50,000,000 of revenue. Although the Company had a market capitalization in excess of \$50,000,000 on the date of this Prospectus, and will have net tangible assets in excess of \$4,000,000 if a sufficient number of Common Shares are sold in the Offer, future losses from operations could cause the Company's net tangible assets or market capitalization to decline below the Nasdaq listing criteria in the future. If the Common Shares are delisted by Nasdaq, trading in the Common Shares could thereafter be conducted on the over-the-counter market on the Nasdaq SmallCap Market or on an electronic bulletin board established for securities that do not meet the Nasdaq listing requirements. If the Common Shares were delisted from the Nasdaq National Market and were not listed on the Nasdaq SmallCap Market, they would be subject to the so-called penny stock rules that impose restrictive sales practice requirements on broker-dealers who sell such securities. Consequently, delisting, if it occurred, could affect the ability of shareholders to sell their Common Shares in the secondary market.

#### Broad Discretion on Use of Proceeds

Management of the Company will have broad discretion in determining the use to which the net proceeds of the Offer will be put.

#### Terms of the Offer

The Company is issuing Rights to subscribe for Common Shares. The Rights will be issued to Record Date Shareholders. Each Record Date 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 at the Subscription Price one Common Share for each 20 Rights held. Any Record Date Shareholder who is issued fewer than 20 Rights may subscribe for one full Common Share at the Subscription Price. The Rights will be evidenced by Subscription Certificates (see Appendix A) which will be mailed to Record Date Shareholders other than Record Date Shareholders whose record addresses are outside the United States (the United States also includes the District of Columbia, U.S. territories and possessions) ("Foreign Record Date Shareholders").

Any Record Date Shareholder who fully exercises all Rights initially issued to him (other than those Rights which cannot be exercised because they represent the right to acquire less than one Common Share) is entitled to subscribe for any Common Shares that are not otherwise subscribed for by other Rights holders in the Primary Subscription (the "Over-Subscription Privilege"). Record Date Shareholders such as broker-dealers, banks, and other professional intermediaries who hold shares on behalf of clients, may participate in the Over-Subscription Privilege for a client if the client fully exercises all Rights attributable to him. For purposes of determining the maximum number of Shares a Rights holder may acquire pursuant to the Offer, broker-dealers whose Common Shares are held of record by Cede & Co. ("Cede") or by any other depository or nominee will be deemed to be the holders of the Rights that are issued to Cede or such other depository or nominee on their behalf. Common Shares acquired pursuant to the Over-Subscription Privilege may be subject to allotment, which is more fully discussed below under "Over-Subscription Privilege".

Rights may be exercised by completing a Subscription Certificate and delivering it, together with payment, either by means of a notice of guaranteed delivery or a check, to the Subscription Agent. The method by which Rights may be exercised and Shares paid for is described below in "Exercise of Rights" and "Payment for Shares". A Rights holder who exercises Rights will not be allowed to rescind a purchase after the Subscription Agent has received payment. See "Payment of Shares" below. Common Shares issued pursuant to the exercise of Rights will be listed on Nasdaq.

The Rights are transferable until the Expiration Date and are expected to be listed for trading on Nasdaq. Assuming a market for the Rights develops, the Rights may be purchased and sold through usual brokerage channels. Although no assurance can be given that a market for the Rights will develop, trading in the Rights may be conducted until and including the close of trading on the last Business Day prior to the Expiration Date. The method by which Rights may be transferred is set forth below in "Sale of Rights". Because fractional Common

Shares will not be issued, Record Date shareholders who receive fewer than 20 Rights will be entitled to purchase one Common Share. Record Date Shareholders who, after exercising their Rights, are left with fewer than 20 Rights, will be unable to exercise those remaining Rights and will not be entitled to receive any cash from the Company in lieu of those remaining Rights.

The Rights issued to Foreign Record Date Shareholders will be held by the Subscription Agent for such shareholders' accounts until instructions are received to exercise (if permissible under applicable foreign or state securities laws), sell, or transfer the 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 Record Date Shareholders on Nasdaq. The net proceeds from the sale of those Rights will be remitted to the Foreign Record Date Shareholders. See "Sale of Rights".

Officers, directors, and certain financial consultants of the Company who own, in the aggregate 2,341,989 Common Shares, have informed the Company that they intend to purchase in the Primary Subscription up to 117,099 Common Shares through the exercise of Rights distributed to them in the Offer, provided that suitable financial arrangements can be made, but they are not legally bound to do so. Any Common Shares so acquired by officers, directors and other persons who are "affiliates" of the Company, as that term is defined under the Securities Act of 1933, as amended (the "Securities Act"), 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 the Company 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 the Company.

#### Purpose of the Offer

The Board of Directors of BioTime has determined that it is necessary for the Company to raise additional capital at this time to finance its operations, including the costs of conducting additional clinical trials of Hextend and initial clinical trials of PentaLyte, costs associated with seeking foreign regulatory approval of Hextend, continued research and product development, and general and administrative expenses. The Company is waiting for FDA approval to market Hextend in the United States. Abbott Laboratories has the exclusive right to market Hextend in the United States following FDA approval, but several months will elapse between the commencement of marketing and the payment of royalties and licensing fees on the sale of Hextend. Until the Company begins to receive sufficient revenues from product sales and licensing fees from Abbott Laboratories or other companies that may obtain a license to sell Company products, it will have to finance its operations with capital raised through the sale of equity securities.

The Offer provides an opportunity for BioTime to raise additional capital without diluting the ownership interests of existing shareholders who exercise their Rights (except to the extent that the Company issues additional Common Shares to fill Excess Over-Subscriptions), and without paying underwriting commissions and expenses. Shareholders who exercise their Rights in the Offer will be able to purchase shares at a price below market, without incurring broker's commissions. Generally, shareholders who exercise their Rights in full in the Primary Subscription will be able to maintain their pro rata share of the Company's outstanding Common Shares. However, if the Offer is oversubscribed and the Company issues additional Common Shares to fill Excess Over-Subscriptions, shareholders who do not purchase their pro rata portion of those additional shares through the Over-Subscription Privilege would experience a reduction in their percentage interests in the Company's outstanding shares. The distribution of the Rights to Record Date Shareholders will also afford those Record Date Shareholders who choose not to exercise their Rights the potential of receiving a cash payment upon the sale of such Rights. Therefore, the receipt of Rights by Record Date Shareholders who chose not to exercise their Rights may be viewed as compensation for the possible dilution of their interest in the Company.

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, and would also have been dilutive to BioTime shareholders because the shares would 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 Offer will permit the Company to incur lower transaction fees in raising capital and will permit the shareholders who exercise their Rights to enjoy the price discount that might otherwise have been realized by new investors. During January and February 1997, the Company conducted a similar subscription rights offer that was over-subscribed, leading the Company to conclude that the Offer might be a better alternative to the other sources of financing.

#### The Subscription Price

The Subscription Price for the Common Shares to be issued pursuant to the Rights is \$\_\_\_\_\_\_. We announced the Offer on December \_\_\_\_, 1998. The last reported sale price of the Common Shares on Nasdaq on December \_\_\_\_, 1998 and \_\_\_\_\_, 1999, was \$\_\_\_\_ and \$\_\_\_\_\_, respectively.

#### Expiration of the Offer

The Offer will expire at 5:00 p.m., New York City time, on \_\_\_\_\_\_, 1999, the Expiration Date. Rights will expire on the Expiration Date and may not be exercised after that date.

#### Exercise of Rights

Rights may be exercised by filling in and signing the reverse side of the Subscription Certificate which accompanies this Prospectus and mailing it in the envelope provided, or otherwise delivering the completed and signed Subscription Certificate to the Subscription Agent, together with payment for the Common Shares as described below under "Payment for Shares". Properly completed and executed Subscription Certificates must be received by the Subscription Agent prior to 5:00 p.m., New York City time, on the Expiration Date (unless payment is effected by means of a notice of guaranteed delivery as described below under

"Payment for Shares") at the offices of the Subscription Agent at the address set forth below. Rights may also be exercised through a broker, who may charge the exercising Rights holder a servicing fee. A Record Date Shareholder who is issued fewer than 20 Rights may subscribe, at the Subscription Price, for one full Common Share. Fractional shares will not be issued, and Record Date Shareholders who, upon exercising their Rights, are left with fewer than 20 Rights will not be able to exercise such remaining Rights.

Signed Subscription Certificates, accompanied by payment of the Subscription Price, should be sent to American Stock Transfer & Trust Company (the "Subscription Agent"), by one of the methods described below:

#### (1) BY MAIL OR BY HAND:

American Stock Transfer & Trust Company 40 Wall Street, 46th Floor New York, New York 10005

#### (2) BY EXPRESS MAIL OR OVERNIGHT COURIER:

American Stock Transfer & Trust Company Corporate Stock Transfer Department 40 Wall Street New York, New York 10005

#### (3) BY FACSIMILE (TELECOPIER):

(718) 236-4588 or (718) 234-5001 With a copy of the original Subscription Certificate to be sent by one of the methods described above. Confirm facsimile by telephone to (212) 921-8200.

#### DO NOT SEND SUBSCRIPTION CERTIFICATES TO THE COMPANY.

If a Rights holder does not indicate the number of Rights being exercised in the Primary Subscription, or does not deliver full payment of the Subscription Price for the number of shares indicated as being subscribed through the exercise of Rights, then such Rights holder will be deemed to have exercised Rights to purchase the maximum number of Common Shares determined by dividing the total Subscription Price paid by the Subscription Price per share, but not in excess of the number of Common Shares such holder may purchase through the exercise of Rights in the Primary Subscription.

If the Rights holder does not indicate the number of Rights being exercised or the number of shares such holder wishes to purchase through the Over-Subscription Privilege, but submits payment for more shares than may be purchased through the exercise of such holder's Rights in the Primary Subscription, the excess payment received from such Rights holder will be deemed to be a subscription payment for a number of additional shares in the Over-Subscription Privilege determined by dividing the amount of such excess payment by the Subscription Price per share.

All questions concerning the timeliness, validity, form and eligibility of any exercise of Rights or subscriptions pursuant to the Oversubscription Privilege will be determined by the Company, whose determination will be final and binding. The Company in its sole discretion may waive any defect or irregularity, or may permit any defect or irregularity to be corrected, within such time as the Company may determine, or the Company may reject, in whole or in part, the purported exercise of any Right in the Primary Subscription or any subscription pursuant to the Oversubscription Privilege. Neither the Company nor the Subscription 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 Subscription Certificate, the exercise or attempt to exercise any Right or the Oversubscription Privilege, or the payment of the Subscription Price. Subscriptions through the exercise of Rights or the Oversubscription Privilege will not be deemed to have been received or accepted by the Company until all irregularities or defects have been waived by the Company or cured to the satisfaction of, and within the time allotted by, the Company in its sole discretion.

#### Over-Subscription Privilege

Common Shares not sold by the Company through the exercise of Rights in the Primary Subscription will be offered, by means of the Over-Subscription Privilege, to the Record Date Shareholders who have exercised all exercisable Rights issued to them. The Over-Subscription Privilege may allow Record Date Shareholders to acquire more Common Shares than the number issuable upon the exercise of the Rights issued to them. Record Date Shareholders such as broker-dealers, banks, and other professional intermediaries who hold shares on behalf of clients, may participate in the Over-Subscription Privilege for the client if the client fully exercises all Rights attributable to him. Record Date Shareholders should indicate, on the Subscription Certificate which they submit with respect to the exercise of the Rights issued to them, how many Common Shares they are willing to acquire pursuant to the Over-Subscription Privilege. If sufficient Common Shares remain after the Primary Subscription, all over-subscriptions will be honored in full.

If subscriptions for Common Shares through the Over-Subscription Privilege exceed the number of Common Shares available for sale after the Primary Subscription ("Excess Over-Subscriptions"), the Company may issue up to 250,000 additional Common Shares to fill all of or a portion of the Excess Over-Subscriptions. The issuance of Common Shares to fill Excess Over-Subscriptions may dilute the percentage ownership interests of other shareholders.

The Company will not be obligated to issue any Common Shares to fill Excess Over-Subscriptions, but it may do so in its sole and absolute discretion. The Company reserves the right to limit the number of Common Shares issued to fill an Excess Over-Subscription from any single shareholder (or shareholders that are known or believed by the Company to be under common control or acting as a group for the purpose of acquiring Common Shares).

Subject to the right of the Company to limit the number of Common Shares issuable to any shareholder, if the amount of Excess Over-Subscriptions exceeds 250,000 shares (or such lesser number of shares that the Company determines to issue to fill Excess Over-Subscriptions), the available Common Shares will be allocated among those who over-subscribe based on the number of Rights originally issued to them, so that the number of Common Shares issued to Record Date Shareholders who subscribe pursuant to the Over-Subscription Privilege will generally be in proportion to the number of Common Shares owned by them on the Record Date. The percentage of remaining Common Shares each over-subscribing Record Date Shareholder may acquire may be rounded up or down to result in delivery of whole shares. The allocation process may involve a series of allocations in order to assure that the total number of shares available for over-subscriptions is distributed on a pro rata basis. A Record Date Shareholder who is not allocated the full amount of shares that the holder subscribes for pursuant to the Over-Subscription Privilege will receive a refund of the Subscription Price paid by such holder for shares that are not allocated to and purchased by such holder. Such refund will be made by a check mailed by the Subscription Agent.

If a Rights holder does not deliver full payment of the Subscription Price for the number of shares indicated as being subscribed through the exercise of the Oversubscription Privilege, then such Rights holder will be deemed to have exercised the Oversubscription Privilege to purchase the maximum number of Common Shares determined by dividing the total Subscription Price paid (in excess of the Subscription Price for the number of Common Shares such holder purchased through the exercise of Rights in the Primary Subscription) by the Subscription Price per share.

#### Payment for Shares

Holders of Rights who wish to exercise their Rights or to acquire Common Shares pursuant to the Over-Subscription Privilege may choose between the following methods of payment:

1. The Rights holder may send the Subscription Certificate together with payment for the Common Shares acquired on Primary Subscription and any additional Common Shares that the Right holder desires to acquire through the Over-Subscription Privilege (if the Rights holder is entitled to exercise the Over-Subscription Privilege) to the Subscription Agent. A subscription will be deemed accepted when payment, together with a properly completed and executed Subscription Certificate, is received by the Subscription Agent at its Corporate Stock Transfer Department. Such payment and properly completed and executed Subscription Certificate must be received by the Subscription Agent no later than 5:00 p.m., New York City time, on the Expiration Date. The Subscription Agent will deposit all checks received by it for the purchase of Common Shares into a segregated interest-bearing account of the Company (the interest from which will belong to the Company) pending proration and distribution of Common Shares. TO BE ACCEPTED, A PAYMENT PURSUANT TO THIS METHOD MUST BE IN U.S. DOLLARS BY MONEY ORDER OR CHECK DRAWN ON A BANK LOCATED IN THE UNITED STATES, MUST BE PAYABLE TO BIOTIME, INC., AND MUST ACCOMPANY A PROPERLY COMPLETED AND EXECUTED SUBSCRIPTION CERTIFICATE.

2. Alternatively, a subscription will be accepted by the Subscription Agent if, prior to 5:00 p.m., New York City time, on the Expiration Date, the Subscription 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 (i) payment of the full Subscription Price for the Common Shares subscribed for in the Primary Subscription and any additional Common Shares subscribed for pursuant to the Over-Subscription Privilege (for Record Date Shareholders), and (ii) a properly completed and executed Subscription Certificate. The Subscription Agent will not honor a notice of guaranteed delivery unless a properly completed and executed Subscription Certificate and full payment for the Common Shares is received by the Subscription Agent by the close of business on the third Business Day after the Expiration Date (the "Protect Period").

A Rights holder will not be allowed to rescind a purchase after the Subscription Agent has received payment either by means of a notice of guaranteed delivery or a check.

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

#### Sale of Rights

The Rights evidenced by a Subscription Certificate may be transferred in whole by endorsing the Subscription Certificate for transfer in accordance with the accompanying instructions. A portion of the Rights evidenced by a single Subscription Certificate (but not fractional Rights) may be transferred by delivering to the Subscription Agent a Subscription Certificate properly endorsed for transfer, with instructions to register such portion of the Rights evidenced thereby in the name of the transferee and to issue a new Subscription Certificate to the transferee evidencing such transferred Rights. In such event, a new Subscription Certificate evidencing the balance of the Rights will be issued to the Record Date Shareholder or, if the Record Date Shareholder so instructs, to an additional transferee.

Record Date Shareholders wishing to transfer all or a portion of their Rights should allow sufficient time prior to the Expiration Date for (i) the transfer instructions to be received and processed by the Subscription Agent; (ii) a new Subscription Certificate to be issued and transmitted to the transferee or transferees with respect to transferred Rights, and to the transferor with respect to retained Rights, if any; and (iii) the Rights evidenced by such new Subscription Certificate to be exercised or sold by the recipients. The Company and the Subscription Agent shall have no liability to a transferee or transferor of Rights if Subscription Certificates are not received in time for exercise or sale prior to the Expiration Date.

Except for the fees charged by the Subscription Agent (which will be paid by the Company), all commissions, fees and other expenses (including brokerage commissions and transfer taxes) incurred in connection with the purchase, sale or exercise of Rights will be for the account of the transferor of the Rights, and none of such commissions, fees or expenses will be paid by the Company or the Subscription Agent.

The Company anticipates that the Rights will be eligible for transfer through, and that the exercise of the Primary Subscription (but not the Over-Subscription Privilege) may be affected through, the facilities of The Depository Trust Company ("DTC"); Rights exercised through DTC are referred to as "DTC Exercised Rights". The holder of a DTC Exercised Right who was a Record Date Shareholder may exercise the Over-Subscription Privilege in respect of such DTC Exercised Right by properly executing and delivering to the Subscription Agent, at or prior to 5:00 p.m., New York City time, on the Expiration Date, a DTC Participant Over-Subscription Form, together with payment of the Subscription Price for the number of Common Shares for which the Over-Subscription Privilege is to be exercised. Copies of the DTC Participant Over-Subscription Form may be obtained from the Subscription Agent.

Amendment, Extension or Termination of the Offer

The Company reserves the right, in its sole discretion, to: (a) terminate the Offer prior to delivery of the Common Shares for which Rights holders have subscribed pursuant to the exercise of Rights in the Primary Subscription or the Oversubscription Privilege; (b) extend the Expiration Date to a later date; (c) change the Record Date prior to distribution of the Rights to shareholders; or (d) amend or modify the terms of the Offer. If the Company amends the terms of the Offer, an amended Prospectus will be distributed to holders of record of Rights and to holders of Rights who have previously exercised Rights. All holders of Rights who exercised their Rights prior to such amendment or within four business days after the mailing of the amended Prospectus will be given the opportunity to confirm the exercise of their Rights by executing and delivering a consent form.

Any Rights holder who exercised Rights before or within four days after mailing of an amended Prospectus relating to an amendment of the Offer and who fails to deliver, in a proper and timely manner, a properly executed consent form will be deemed to have rejected the amended terms of the Offer and to have elected to revoke in full their exercise of the Rights and the Oversubscription Privilege. If a Rights holder's exercise of Rights is so revoked, the full amount of the Subscription Price paid by such Rights holder will be returned to the Rights holder.

A Rights holder whose executed Subscription Certificate is received by the Subscription Agent more than four days after the mailing of an amended Prospectus will be deemed to have accepted the amended terms of the Offer in connection with the exercise of their Rights and the Oversubscription Privilege.

If the Company elects to terminate the Offer before delivering the Common Shares for which Rights holders have subscribed, the Subscription Price paid will be returned by mail. Except for the obligation to return the Subscription Price paid by Rights holders who attempted to exercise their Rights, neither the Company nor the Subscription Agent will have any obligation or liability to a Rights holder or purchaser of Rights in the event of an amendment or termination of the Offer.

#### Delivery of Share Certificates

Certificates representing Common Shares purchased pursuant to the Primary Subscription will be delivered to the purchasers as soon as practicable after the corresponding Rights have been validly exercised and full payment for such Common Shares has been received and cleared. Certificates representing Common Shares purchased pursuant to the Over-Subscription Privilege will be delivered to the purchaser as soon as practicable after the Expiration Date and after all allocations have been affected. It is expected that such certificates will be available for delivery three Business Days following the Expiration Date.

#### Subscription Agent

The Subscription Agent is American Stock Transfer & Trust Company, which will receive for its administrative, processing, invoicing and other services as Subscription Agent, a fee estimated to be \$\_\_\_\_\_\_, and reimbursement for all out-of-pocket expenses related to the Offer. The Subscription Agent is also the Company's transfer agent and registrar. Questions regarding the Subscription Certificates should be directed to American Stock Transfer & Trust Company, 40 Wall Street, New York, New York, 10005 (telephone (718) 921-8200). Shareholders may also consult their brokers or nominees.

#### Federal Income Tax Consequences

The U.S. Federal income tax consequences to holders of Common Shares with respect to the Offer will be as follows:

- 1. The distribution of Rights will not result in taxable income nor will the holder realize taxable income as a result of the exercise of Rights.
- 2. The basis of a Right will be (a) to a holder of Common Shares to whom it is issued, and who exercises or sells the Right (i) if the market value of the Right immediately after issuance is less than 15% of the market value of the Common Share with regard to which it is issued, zero (unless the holder elects, by filing a statement with his timely filed federal income tax return for the year in which the Rights are received, to allocate the basis of the Common Share between the Right and the Common Share based on their respective market values immediately after the Right is issued), and (ii) if the market value of the Right immediately after issuance is 15% or more of the market value of the Common Share with respect to which it is issued, a portion of the basis in the Common Share based upon the respective values of the Common Share and the Right immediately after the Right is issued; (b) to a holder of Common Shares to whom it is issued and who allows the Right to expire, zero; and (c) to anyone who purchases a Right in the market, the cost to acquire the Right.
- 3. The holding  $\mbox{period}$  of a Right  $\mbox{received}$  by a holder of a Common Share includes the holding  $\mbox{period}$  of the Common Share.

- 4. Any gain or loss on the sale of a Right will be treated as a capital gain or loss if the Right is a capital asset in the hands of the seller. Such a capital gain or loss will be long-term or short-term, depending on how long the Right has been held, in accordance with paragraph 3 above. A Right issued with regard to a Common Share will be a capital asset in the hands of the person to whom it is issued if the Common Share was a capital asset in the hands of that person. If a Right is allowed to expire, there will be no loss realized unless the Right had been acquired by purchase, in which case there will be a loss equal to the basis of the Right.
- 5. If a Right is exercised by the holder of Common Shares, the basis of the Common Share received will include the basis allocated to the Right and the amount paid upon exercise of the Right.
- $\,$  6. If a Right is exercised, the holding period of the Common Share acquired begins on the date the Right is exercised.
- 7. Gain recognized by a non-U.S. Shareholder on the sale of a Right will be taxed in the same manner as gain recognized on the sale of Common Shares.

Proceeds from the sale of a Right may be subject to withholding of U.S. taxes at the rate of 31% unless the seller's certified U.S. taxpayer identification number (or certificate regarding foreign status) is on file with the Subscription Agent and the seller is not otherwise subject to U.S. backup withholding. The 31% withholding tax is not an additional tax. Any amount withhold may be credited against the seller's U.S. federal income tax liability.

The foregoing is only a summary of the applicable federal income tax law and does not include any state or local tax consequences of this transaction. Record Date Shareholders and other Rights holders should consult their tax advisers concerning the tax consequences of the Offer.

#### Special Considerations

As a result of the terms of the Offer, Record Date Shareholders who do not fully exercise their Rights should expect that they will, at the completion of the Offer, own a smaller proportional interest in the Company than would otherwise be the case.

#### USE OF PROCEEDS

The net proceeds received by the Company from the sale of the 501,629 Common Shares in the Offer are estimated to be \$\_\_\_\_\_\_, after deducting the expenses of the Offer of approximately \$\_\_\_\_\_\_, but without taking into

account any Common Shares that may be sold to fill Excess Over-Subscriptions. The Company intends to use the net proceeds of the Offer as follows:

Application	Estimated Amount	Percent of Total
Research and Development	\$	50%
Working Capital		50
Total	\$	100%
	=======	====

Research and Development. Proceeds allocated to research and development will be used to finance further clinical testing of Hextend, clinical trials of HetaCool, initial clinical trials of PentaLyte, and laboratory testing of other products being developed by the Company. When laboratory testing of a product has been completed, a portion of the proceeds allocated to research and development may also be used to commence clinical trials of that product.

Working Capital. The Company intends to apply the balance of the proceeds of the Offer to working capital and general corporate purposes. The Company's management will have broad discretion with respect to the use of proceeds retained as working capital. Such proceeds may be used to defray overhead expenses and for future opportunities and contingencies that may arise. The Company expects that its general and administrative expenses will increase as it achieves progress in developing products and bringing them to market. For example, a portion of the proceeds allocated to working capital may be used to pay the salaries, benefits and fees to employees and consultants who assist in the preparation of applications to the FDA and foreign regulatory agencies and patent applications. Proceeds allocated to working capital also may be reallocated to research and development and may be used to pay the costs of clinical trials of Hextend and other products.

The foregoing table represents only an estimate of the allocation of the net proceeds of the Offer based upon the current state of the Company's product development program. The development of new medical products and technologies often involves complications, delays and costs that cannot be predicted, and may cause the Company to make a reallocation of proceeds among the categories shown above or to other uses. We believe that our cash on hand will be sufficient to permit BioTime to continue in operation for at least 12 months. We need the proceeds from the offering to continue to finance our operations for a longer period of time. The Company may need to raise additional capital after the Offer to pay operating expenses until such time as it is able to generate sufficient revenues from product sales, royalties, and license fees.

Although the Company is not presently a party to any agreement, arrangement or plan to acquire any assets or technology from a third party, the Company might determine that it is necessary or advantageous to make such an acquisition, or the Company might determine to concentrate its efforts and resources on the development and marketing of one or more specific products.

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

#### DESCRIPTION OF SECURITIES

#### Common Shares

The Company's Articles of Incorporation currently authorize the issuance of up to 40,000,000 Common Shares, no par value, of which 10,032,579 shares were outstanding at November 12, 1998 and held by \_\_\_\_\_\_ persons based upon the share position listings for the Common Shares. 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 such purpose. The Company has not paid any cash dividends on its Common Shares, and it is unlikely that any cash dividends will be declared or paid on any Common Shares in the foreseeable future. Instead, the Company plans to retain its cash for use in financing its future operations and growth.

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

#### Preferred Shares

The Company's Articles of Incorporation currently authorize the issuance of up to 1,000,000 preferred shares, no par value. Preferred shares may be issued by the Company 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 the shareholders of the Company. 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 the Company has no present plan, arrangement or commitment to issue any preferred shares.

#### Transfer Agent and Registrar

The Transfer Agent and Registrar for the Common Shares is American Stock Transfer and Trust Company, 40 Wall Street, New York, New York 10005.

#### LEGAL MATTERS

The validity of the Rights and Common Shares will be passed upon for the Company by Lippenberger, Thompson, Welch, Soroko & Gilbert LLP, San Francisco, California. A member of Lippenberger, Thompson, Welch, Soroko & Gilbert LLP owns options to purchase 30,000 Common Shares.

#### **EXPERTS**

The financial statements of BioTime, Inc. as of June 30, 1997 and 1998 and for each of the three fiscal years in the period ended June 30, 1998 incorporated by reference in this Prospectus from the Company's Annual Report on Form 10-K for the year ended June 30, 1998 have been audited by Deloitte & Touche LLP, independent auditors, as stated in their report (which expresses an unqualified opinion and includes an explanatory paragraph related to the development stage of the Company's operations incorporated herein by reference), and have been so incorporated in reliance upon the report of such firm given upon their authority as experts in accounting and auditing.

#### INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The Company's Form 10-K for the fiscal year ended June 30, 1998, Form 10-Q for the three months ended September 30, 1998, and all other reports filed by the Company pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, since the end of the fiscal year covered by such Form 10-K are hereby incorporated into this Prospectus by reference. The Company has announced that it will change its fiscal year end from June 30 to December 31. The change will take effect on December 31, 1998. The Company 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 the Company at 935 Pardee Street, Berkeley, California 94710; Telephone: (510) 845-9535.

The Company is subject to the informational requirements of the Securities Exchange Act of 1934, as amended, and in accordance therewith files 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 the Company files with Securities and Exchange Commission at the Commission's Public Reference Room at 450 Fifth Street, N.W., 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.

#### ADDITIONAL INFORMATION

The Company has filed with the Securities and Exchange Commission, 450 Fifth Street, N.W., Washington, D.C. a Registration Statement on Form S-3 under the Securities Act of 1933, as amended, for the registration of the securities offered hereby. 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 the Company and the securities offered hereby, reference is made 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, and in each instance reference is made to the copy of such contract or other document filed as an exhibit to the Registration Statement, each such statement being qualified in all respects by such reference.

Expiration Date	, 1999	SHARES SUBSCRIPTION PRICE U.S. \$	PER SHARE
			_ TER SHARE
		CUSIP	
	SHARES VOID IF NOT EXERCI: NEW YORK TIME) ON, THIS SUBSCRIPTION CERTIC MAY BE COMBINED OR DIVIDE CERTIFICATES EVIDENCING	IFICATE FOR COMMON SED AT OR BEFORE 5:00 P.M. 1999, THE EXPIRATION DATE. FICATE IS TRANSFERABLE D (BUT ONLY INTO SUBSCRIPTION A WHOLE NUMBER OF RIGHTS) E SUBSCRIPTION AGENT	
COMMON SHARES (	ION CERTIFICATE MAY BE USE OR MAY BE ASSIGNED OR SOLD BACK OF THIS SUBSCRIPTION (	. FULL INSTRUCTIONS	
REGISTERED OWNE	ER:		
assignee, is er par value, of each 20 Rights and conditions	ntitled to the number of R. BioTime, Inc. shown above held, pursuant to the Pr	cription Certificate, named ights to subscribe for Common e, in the ratio of one Commo imary Subscription and upon each Common Share specif	Shares, no n Share for the terms
Subscription ( Certificate re the Subscripti Subscription (	Certificate, the Subscrip epresenting the balance of ion Agent has received Certificate and payment	all the shares represent tion Agent will issue a new S the unsubscribed Rights, pr your properly completed an prior to 5:00 p.m., New Yor Certificate will be issued	subscription ovided that d executed k time, on
IMPORTANT: Con	nplete appropriate form on	reverse	
DATE:	, 1999		
		BIOTIME, INC.	
SECRETA	ARY	PRESIDENT	
		& Trust Company (New York, N.	v \
counter signed:	Subscription Agent	α irust company (New York, N.	τ.,

SUBSCRIPTION CERTIFICATE FOR

CONTROL NUMBER

BIOTIME, INC.

APPENDIX A

Authorized Signature

Expiration Date:, 1999
PLEASE COMPLETE ALL APPLICABLE INFORMATION
By Mail: To: American Stock Transfer & Trust Company 40 Wall Street New York, New York 10005  By Hand: By Overnight Courier: To: American Stock Tro: American Stock Transfer & Trust Company Transfer & Trust Company 40 Wall Street, 46th Floor New York, New York 10005  New York, New York 10005  By Overnight Courier: To: American Stock Transfer & Trust Company Transfer & Trust Company New York, New York 10005  New York, New York 10005
SECTION 1: TO SUBSCRIBE: I hereby irrevocably subscribe for the dollar amount of Common Shares indicated as the total of A and B below upon the terms and conditions specified in the Prospectus related hereto, receipt of which is acknowledged.
TO SELL: If I have checked either the box on line C or the box on line D, I authorize the sale of Rights by the Subscription Agent according to the procedures described in the Prospectus. The check for the proceeds of sale will be mailed to the address of record.
Please check  X  below:
$\begin{bmatrix} - \\ - \end{bmatrix}$ A. Primary Subscription $\frac{}{}$ / 20 = $\frac{}{}$ (Rights Exercised)
.000 \$
.000 \$ \$ =
_  _  B. Over-Subscription Privilege
.000 \$ \$ (*)
X =
Amount of Check Enclosed or Amount in Notice of Guaranteed $$ Delivery (total of A $+$ B) = $\$$
Make check payable to the order of "BioTime, Inc."
(*) The Over-Subscription Privilege can be exercised by Record Date Shareholders only, as described in the Prospectus.
$\left  { }^{-} \right $ C. Sell any remaining unexercised Rights
$\mid _{-}^{-}\mid$ D. Sell all of my Rights.
Signature of Subscriber(s)/Seller(s)
Please provide your telephone number  Day ()  Evening ()
Social Security Number or Tax ID Number:
SECTION II: TO TRANSFER RIGHTS: (except pursuant to C and D above)
For value received,of the Rights represented by this Subscription Certificate are assigned to
Social Security Number or Tax ID Number of Assignee
(Print Full Name of Assignee)
Signature(s) of Assignor(s)
(Print Full Address including postal Zip Code)
The signature(s) must correspond with the name(s) as written upon the face of this Subscription Certificate, in every particular, without alteration.

program.

SIGNATURE GUARANTEED BY:

IMPORTANT: For Transfer, a Signature Guarantee must be provided by an eligible financial institution which is a participant in a recognized signature guarantee

PROCEEDS FROM THE SALE OF RIGHTS MAY BE SUBJECT TO WITHHOLDING OF U.S. TAXES UNLESS THE SELLER'S CERTIFIED U.S. TAXPAYER IDENTIFICATION NUMBER (OR CERTIFICATION REGARDING FOREIGN STATUS) IS ON FILE WITH THE SUBSCRIPTION AGENT AND THE SELLER IS NOT OTHERWISE SUBJECT TO U.S. BACKUP WITHHOLDING.

\_\_| CHECK HERE IF RIGHTS ARE BEING EXERCISED PURSUANT TO A NOTICE OF GUARANTEED DELIVERY DELIVERED TO THE SUBSCRIPTION AGENT PRIOR TO THE DATE HEREOF AND COMPLETE THE FOLLOWING:

NAME(S) OF REGISTERED OWNER(S): WINDOW TICKET NUMBER (IF ANY): DATE OF EXECUTION OF NOTICE OF GUARANTEED DELIVERY: NAME OF INSTITUTION WHICH GUARANTEED DELIVERY:

#### APPENDIX B

[Form of Notice of Guaranteed Delivery]

NOTICE OF GUARANTEED DELIVERY OF SUBSCRIPTION RIGHTS AND THE SUBSCRIPTION PRICE FOR COMMON SHARES OF BIOTIME, INC. SUBSCRIBED FOR IN THE PRIMARY SUBSCRIPTION AND THE OVER-SUBSCRIPTION PRIVILEGE

As set forth in the Prospectus under "The Offer - Payment for Shares," this form or one substantially equivalent may be used as a means of effecting subscription and payment for all Common Shares of BioTime, Inc. subscribed for in the Primary Subscription and the Over-Subscription Privilege. Such form may be delivered by hand or sent by facsimile transmission, overnight courier or mail to the Subscription Agent.

The Subscription Agent is: American Stock Transfer & Trust Company

By Mail: American Stock Transfer & Trust Company 40 Wall Street New York, New York 10005 By Facsimile: (718) 234-5001 Confirm by Telephone (718) 234-2700

By Hand: Overnight Courier:

American Stock Transfer & Trust Company American Stock Transfer & Trust Company
40 Wall Street 40 Wall Street, 46th Floor
New York, New York 10005 New York, New York 10005

DELIVERY OF THIS INSTRUMENT TO AN ADDRESS, OR TRANSMISSION OF INSTRUCTIONS VIA A TELECOPY OR FACSIMILE NUMBER, OTHER THAN AS SET FORTH ABOVE, DOES NOT CONSTITUTE A VALID DELIVERY

The New York Stock Exchange member firm or bank or trust company which completes this form must communicate the guarantee and the number of shares subscribed for (under both the Primary Subscription and the Over- Subscription Privilege) to the Subscription Agent and must deliver this Notice of Guaranteed Delivery guaranteeing delivery of (i) payment in full for all subscribed shares and (ii) a properly completed and executed Subscription Certificate (which certificate and full payment must then be delivered by the close of business on the third business day after the Expiration Date, as defined in the Prospectus) to the Subscription Agent prior to 5:00 p.m., New York time, on the Expiration Date (\_\_\_\_\_, 1999, unless extended). Failure to do so will result in a forfeiture of the Rights.

#### GUARANTEE

The undersigned, a member firm of the New York Stock Exchange or a bank or
trust company, guarantees delivery to the Subscription Agent by the close of
business (5:00 p.m., New York time) on the third Business Day after the
Expiration Date (, 1999, unless extended) of (A) a properly completed and
executed Subscription Certificate and (B) payment of the full Subscription Price
of shares subscribed for in the Primary Subscription and pursuant to the
Over-Subscription Privilege, if applicable, as subscription for such Common
Shares as indicated herein or in the Subscription Certificate.

Number of Common Shares subscribed for in the Primary Subscription for which you are guaranteeing delivery of Rights and payment
Number of Common Shares subscribed for pursuant to the Over-Subscription Privilege for which guaranteeing delivery of Rights and payment
Number of Rights to be delivered:

Total Subscription Price payment to be delivered: \$\_\_\_\_\_\_

Method of Delivery [circle one]

- A. Through DTC
- B. Direct to Corporation

Please note that if you are guaranteeing for Over-Subscription Shares, and are a DTC participant, you must also execute and forward to American Stock Transfer & Trust Company a Nominee Holder Over-Subscription Exercise Form.

Name of Firm	Authorized Signature
Address	Title
Zip Code	(Type or Print)
Name of Registered Holder (If Applicable)	
Telenhone Number	Nate

\* IF THE RIGHTS ARE TO BE DELIVERED THROUGH DTC, A REPRESENTATIVE OF THE SUBSCRIPTION AGENT WILL PHONE YOU WITH A PROTECT IDENTIFICATION NUMBER, WHICH NEEDS TO BE COMMUNICATED BY YOU TO DTC.

PLEASE NOTE THAT IF YOU ARE GUARANTEEING FOR OVER-SUBSCRIPTION SHARES AND ARE A DTC PARTICIPANT, YOU MUST ALSO EXECUTE AND FORWARD TO THE SUBSCRIPTION AGENT A NOMINEE HOLDER OVER-SUBSCRIPTION EXERCISE FORM.

#### APPENDIX C

[Form of Nominee Holder Over-Subscription Exercise Form]

# BIOTIME, INC. RIGHTS OFFERING NOMINEE HOLDER OVER-SUBSCRIPTION EXERCISE FORM PLEASE COMPLETE ALL APPLICABLE INFORMATION

By Mail:	By Hand:		By Overnight Courier:
To: American Stock Transfer & Trust Company	To: American St Transfer & Trus	ock t Company	To: American Stock Transfer & Trust Company
	40 Wall Street,	46th Floor	40 Wall Street, 46th Floor
THIS FORM IS TO OVER-SUBSCRIPTION PRIVIL PRIMARY SUBSCRIPTION	BE USED ONLY EGE IN RESPECT PRIVILEGE WAS DEPOSITORY. ALL	BY NOMINEE OF RIGHTS EXERCISED A OTHER EXER RY OF THE SU	HOLDERS TO EXERCISE THE WITH RESPECT TO WHICH THE ND DELIVERED THROUGH THE CISES OF OVER-SUBSCRIPTION
THE TERMS AND CONDIT	TONE OF THE DICH	TO OFFERING	ARE SET FORTH IN BIOTIME'S
	1999 (THE "PROS	PECTUS") AND VAILABLE UPO	ARE INCORPORATED HEREIN BY
			ITH PAYMENT IN FULL BY 5:00 S EXTENDED BY BIOTIME (THE
participant in [Nam either (i) exercised delivered such exer transfer to the Depo the Subscription Ag exercise of the Pri	the of Depository the Primary Subs cised Rights t sitory Account ent a Notice of mary Subscripti tice of Guarante	] (the "De cription Rig o the Subsc of BioTime, Guaranteed on Right an ed Delivery	ription Agent that it is a pository") and that it has ht in respect to Rights and ription Agent by means of Inc., or (ii) delivered to Delivery in respect of the d will deliver the Rights to the Subscription Agent f BioTime, Inc.
purchase, to the ex Subscription Agent th for the account or ac	tent available, at such Over-Sub counts of person	Common Sh scription P s (which ma	ubscription Privilege to ares and certifies to the rivilege is being exercised y include the undersigned) ave been exercised.(*)
\$ p to the Over- Subscri Agent at or before 5:	er share for eac ption Privilege 00 p.m., New Yo	h Common Sha must be re rk time, on	the Subscription Price of re subscribed for pursuant ceived by the Subscription the Expiration Date, and mount of \$ either (check
_ Notice of Guarant  _ is being delivered  _ has been delivered case of funds n Guaranteed Delive	deed Delivery ref to the Subscrip separately to dot delivered p ery, is or was box and complet	erred to abo tion Agent h the Subscrip ursuant to delivered in	erewith or; tion Agent; and, in the
Depository Primary Subscr	iption Confirmat	ion Number	
Depository Participant Nu			
Name of Nominee Holder			
Address			
City S Contact Name	state	Zip Code	
Phone Number			
By:			
Name:			
Title:			

\* PLEASE COMPLETE THE BENEFICIAL OWNER CERTIFICATION ON THE BACK HEREOF

, 1999

Dated:

CONTAINING THE RECORD DATE POSITION OF PRIMARY RIGHTS OWNED, THE NUMBER OF PRIMARY SHARES SUBSCRIBED FOR AND THE NUMBER OF OVER-SUBSCRIPTION SHARES, IF APPLICABLE, REQUESTED BY EACH SUCH OWNER.

## BIOTIME, INC. BENEFICIAL OWNER CERTIFICATION

The undersigned, a bank, broker or other nominee holder of Rights ("Rights") to purchase Common Shares, no par value ("Common Shares"), of BioTime, Inc. (the "Company") pursuant to the Rights offering (the "Offer") described and provided for in the Company's Prospectus dated \_\_\_\_\_\_, 1999 (the "Prospectus") hereby certifies to the Company and to American Stock Transfer & Trust Company, as Subscription Agent for such Offer, that for each numbered line filled in below the undersigned has exercised, on behalf of the beneficial owner thereof (which may be the undersigned), the number of Rights specified on such line in the Primary Subscription (as defined in the Prospectus), and such beneficial owner wishes to subscribe for the purchase of additional Common Shares pursuant to the Over-Subscription Privilege (as defined in the Prospectus), in the amount set forth in the third column of such line:

Record Date Shares	Number of Rights Exercised In the Primary Subscription
2) 3) 4) 5) 6) 77 8) 9)	
Number of Shares Requested Pursuant to the Over-Subscription Privilege  1) 2) 3) 4) 5) 6) 7) 8) 9)	- -
Name of Nominee Holder	Depository Participant Number
Name: Title:	Depository Primary Subscription Confirmation Number(s)
Dated: , 1999	

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 the Company or the facts herein set forth since the date hereof.

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Form of Notice of	
Guaranteed Delivery	Appendix B
Form of Nominee Holder Over-Subsc	ription
Exercise Form	Appendix C

BIOTIME, INC.

501,629 Common Shares Issuable Upon the Exercise of Subscription Rights

PROSPECTUS

December \_\_\_, 1998

#### INFORMATION NOT REQUIRED IN PROSPECTUS

#### Item 14. Other Expenses of Issuance and Distribution

Registration Fee-Securities and Exchange Commission\$2,736.16
NASDAQ Listing Fee\$*
Printing and Engraving Expenses*
Accounting Fees*
Legal Fees*
Subscription Agent*
Miscellaneous Expenses**
Total\$ *

<sup>\*</sup> To be completed by amendment

#### Item 15. Indemnification of Directors and Officers.

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

Item 16. Exhibits and Financial Statement Schedules.

Exhibit

Numbers Description

- 4.1 Specimen of Common Share Certificate.+
- 4.4 Form of Subscription Certificate. ++
- 5 Opinion of Counsel\*\*
- 23 Consent of Deloitte & Touche LLP++
- + Incorporated by reference to Registration Statement on Form S-1, File Number 33-44549 filed with the Securities and Exchange Commission on December 18, 1991, and Amendment No. 1 and Amendment No. 2 thereto filed with the Securities and Exchange Commission on February 6, 1992 and March 7, 1992, respectively.
- ++ Filed herewith.
- $^{**}$  To be filed by amendment.

Item 17. Undertakings.

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

The undersigned registrant hereby undertakes:

- (i) To include any prospectus required by section 10(a)(3) of the Securities Act of 1933;

- (ii)ab 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)ab 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)ab That for the purpose of determining any liability under the Securities Act of 1933, each 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)ab 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.

The undersigned undertakes that:

- (1) For the purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.
- (2) For the purposes of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus 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 bona fide offering thereof.

#### SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Berkeley, State of California on December 17, 1998.

BIOTIME, INC.

By Paul Segall

Title

Paul Segall, Chief Executive Officer

Date

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

Milton H. Dresner

/s/ Paul E. Segall Paul E. Segall, Ph.D.	Chief Executive Officer and Director (Principal Executive Officer)	December 17, 1998
/s/ Ronald S. Barkin	President and Director	December 17, 1998
/s/ Ronald S. Barkin		
/s/ Harold Waitz	Vice President and Director	December 17, 1998
Harold Waitz, Ph.D.		
/s/ Hal Sternberg	Vice President and Director	December 17, 1998
Hal Sternberg, Ph.D.		
/s/ Victoria Bellport	Chief Financial Officer and Director (Principal Financial and	December 17, 1998
Victoria Bellport	Accounting Officer)	
/s/ Judith Segall	Secretary and Director	December 17, 1998
Judith Segall		
	Director	December 17, 1998
Jeffrey B. Nickel		
	Director	December 17, 1998
		,

(Shares Requested)

Expiration Date \_\_\_\_\_\_, 1999

SHARES
SUBSCRIPTION PRICE U.S. \$\_\_\_ PER SHARE

(Amount Required)

CUSIP

SUBSCRIPTION CERTIFICATE FOR COMMON
SHARES VOID IF NOT EXERCISED AT OR BEFORE 5:00 P.M.
(NEW YORK TIME) ON \_\_\_\_\_\_, 1999, THE EXPIRATION DATE.
THIS SUBSCRIPTION CERTIFICATE IS TRANSFERRABLE
AND MAY BE COMBINED OR DIVIDED (BUT ONLY INTO SUBSCRIPTION
CERTIFICATES EVIDENCING A WHOLE NUMBER OF RIGHTS)
AT THE OFFICE OF THE SUBSCRIPTION AGENT

CERTIFICATES EVIDENCING A WHOLE NUMBER OF RIGHTS)  AT THE OFFICE OF THE SUBSCRIPTION AGENT
THIS SUBSCRIPTION CERTIFICATE MAY BE USED TO SUBSCRIBE FOR COMMON SHARES OR MAY BE ASSIGNED OR SOLD. FULL INSTRUCTIONS APPEAR ON THE BACK OF THIS SUBSCRIPTION CERTIFICATE.
REGISTERED OWNER:
The registered owner of this Subscription Certificate, named above, or assignee, is entitled to the number of Rights to subscribe for Common Shares, no par value, of BioTime, Inc. shown above, in the ratio of one Common Share for each 20 Rights held, pursuant to the Primary Subscription and upon the terms and conditions and at the price for each Common Share specified in the Prospectus dated, 1999.
If you subscribe for fewer than all the shares represented by this Subscription Certificate, the Subscription Agent will issue a new Subscription Certificate representing the balance of the unsubscribed Rights, provided that the Subscription Agent has received your properly completed and executed Subscription Certificate and payment prior to 5:00 p.m., New York time, on
IMPORTANT: Complete appropriate form on reverse
DATE:, 1999
BIOTIME, INC.
SECRETARY PRESIDENT
Countersigned: American Stock Transfer & Trust Company (New York, N.Y.)
Subscription Agent  By:
Authorized Signature
Expiration Date:, 1999
PLEASE COMPLETE ALL APPLICABLE INFORMATION
By Mail: To: American Stock Transfer & Trust Company 40 Wall Street New York, New York 10005  By Hand: To: American Stock Tro: American Stock Transfer & Trust Company 40 Wall Street, 46th Floor New York, New York 10005  By Overnight Courier: To: American Stock Transfer & Trust Company 40 Wall Street, 46th Floor New York, New York 10005  New York, New York 10005
SECTION 1: TO SUBSCRIBE: I hereby irrevocably subscribe for the dollar amount of Common Shares indicated as the total of A and B below upon the terms and conditions specified in the Prospectus related hereto, receipt of which is acknowledged.
TO SELL: If I have checked either the box on line C or the box on line D, I authorize the sale of Rights by the Subscription Agent according to the procedures described in the Prospectus. The check for the proceeds of sale will be mailed to the address of record.
Please check  X  below:
_   A. Primary Subscription $\frac{}{\text{(Rights Exercised)}}$ / 20 =
.000 \$ \$ X =
(Shares Requested) (Subscription Price) = (Amount Required)
_  _  B. Over-Subscription Privilege

(Subscription Price)

Amount of Check Enclosed or Amount in Notice of Guaranteed Delivery (total of A + B) = \$
Make check payable to the order of "BioTime, Inc."
(*) The Over-Subscription Privilege can be exercised by Record Date Shareholders only, as described in the Prospectus.
_  _  C. Sell any remaining unexercised Rights
$\mid _{-}^{-}\mid$ D. Sell all of my Rights.
Signature of Subscriber(s)/Seller(s)
Please provide your telephone number  Day ()  Evening ()
Social Security Number or Tax ID Number:
SECTION II: TO TRANSFER RIGHTS: (except pursuant to C and D above)
For value received,of the Rights represented by this Subscription Certificate are assigned to
Social Security Number or Tax ID Number of Assignee
(Print Full Name of Assignee)
Signature(s) of Assignor(s)
(Print Full Address including postal Zip Code)
The signature(s) must correspond with the name(s) as written upon the face of this Subscription Certificate, in every particular, without alteration.
IMPORTANT: For Transfer, a Signature Guarantee must be provided by an eligible financial institution which is a participant in a recognized signature guarantee program.
SIGNATURE GUARANTEED BY:
PROCEEDS FROM THE SALE OF RIGHTS MAY BE SUBJECT TO WITHHOLDING OF U.S. TAXES UNLESS THE SELLER'S CERTIFIED U.S. TAXPAYER IDENTIFICATION NUMBER (OR CERTIFICATION REGARDING FOREIGN STATUS) IS ON FILE WITH THE SUBSCRIPTION AGENT AND THE SELLER IS NOT OTHERWISE SUBJECT TO U.S. BACKUP WITHHOLDING.
NAME(S) OF REGISTERED OWNER(S): WINDOW TICKET NUMBER (IF ANY): DATE OF EXECUTION OF NOTICE OF GUARANTEED DELIVERY: NAME OF INSTITUTION WHICH GUARANTEED DELIVERY:

We consent to the incorporation by reference in this Registration Statement of BioTime, Inc. on Form S-3 of our report dated August 18, 1998 (which expresses an unqualified opinion and includes an explanatory paragraph related to the development stage of the Company's operations), appearing in the Annual Report on Form 10-K of BioTime, Inc. for the year ended June 30, 1998 and to the reference to us under the heading "Experts" in the Prospectus, which is part of this Registration Statement.

DELOITTE & TOUCHE LLP San Francisco, California December 17, 1998

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3-MOS
DEC-30-1998
JUL-01-1998
SEP-30-1998
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3,764,725
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(48,129)
(1,137,742)
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                                   0
                                  0
                        (1,137,742)
(0.11)
(0.11)
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