

BIOTIME INC  
Form POS AM  
June 10, 2004

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As filed with the Securities and Exchange Commission on June \_\_, 2004

**Registration No. 333-109442**

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

**POST-EFFECTIVE AMENDMENT NO. 1  
TO**

**FORM S-2**

**REGISTRATION STATEMENT UNDER  
THE SECURITIES ACT OF 1933  
BIOTIME, INC.**

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

**California**

(State or other jurisdiction of  
incorporation or organization)

**94-3127919**

(I.R.S. Employer  
Identification Number)

**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)

**Judith Segall, Vice President and Secretary  
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)

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**Copies of all communications, including all communications sent  
to the agent for service, should be sent to:**

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

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

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

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

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

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

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

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

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PROSPECTUS

**BIOTIME, INC.**

**1,499,999 Common Shares**

**1,499,996 Warrants**

**2,780,069 Common Shares Issuable Upon Exercise of Warrants**

This prospectus relates to 1,280,073 common shares that may be issued upon the exercise of outstanding warrants that we issued to persons who exercised subscription rights in our subscription rights offer that was completed during January 2004. This prospectus also relates to 1,499,999 common shares and 1,499,996 warrants held by certain person or designees of persons who acted as Guarantors or Participating Debenture Holders in the subscription rights offer. The exercise price of the warrants is \$2.00 per share. The warrants will expire at 5:00 New York time on January 14, 2007 and may not be exercised after that date.

The common shares are authorized for trading on the American Stock Exchange (the AMEX ) under the symbol BTX, and the warrants are authorized for trading on the AMEX under the symbol BTXW. The closing price of the common shares on the AMEX on June , 2004 was \$ , and the closing price of the warrants on the AMEX on June , 2004 was \$ .

The Guarantors and Participating Debenture Holders and their designees may sell their common shares and warrants from time to time on the AMEX at prevailing market prices, or in privately negotiated transactions, and they will bear all broker-dealer fees, commissions, and discounts payable in connection with the sale of their shares.

All of the net proceeds from the sale of outstanding common shares and warrants will belong to the selling security holders and not to BioTime. However, BioTime will receive the exercise price of the warrants when the warrants are exercised.

**These securities involve a high degree of risk and should be purchased only by persons who can afford the loss of their entire investment. See "Risk Factors" on page 6.**

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

The date of this prospectus is June , 2004

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**PROSPECTUS SUMMARY**

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

**The Company**

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

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

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

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Hextend is being distributed in the United States and Canada by Hospira, Inc. under an exclusive license from us. Hospira was organized by Abbott Laboratories as a spin-off of a substantial portion of Abbott's hospital products business. In connection with the spin-off, Abbott assigned to Hospira the Exclusive License Agreement with us to manufacture and market Hextend in the United States and Canada. Under the Exclusive License Agreement, Hospira also has a right to obtain licenses to manufacture and sell other BioTime products.

According to information disclosed by Abbott, Abbott had global sales of approximately \$19.7 billion during 2003 and has over 70,000 employees. According to information disclosed by Hospira, it employs approximately 14,000 people world-wide, and had the spin-off occurred on January 1, 2003, Hospira would have had net sales of approximately \$2.5 billion for the year ended December 31, 2003.

To facilitate sales in Canada, Abbott completed a phase IV clinical study of Hextend for marketing purposes, and Hospira is awaiting authorization from the Canadian Blood Services to make the use of Hextend eligible for government reimbursement. Hextend product launch in Canada began during the second quarter of this year.

During March 2003, BioTime granted to CJ Corp. ( CJ ) an exclusive license to manufacture and sell Hextend and another of our plasma volume expanders which is still in development, PentaLyte, in South Korea. CJ will have to obtain Korean regulatory approval before sales can begin. CJ will be responsible for obtaining the regulatory approvals required to manufacture and market Hextend and PentaLyte, including conducting any clinical trials that may be required, and will bear all related costs and expenses.

Various colloid and crystalloid products are being marketed by other companies for use in maintaining patient fluid volume in surgery and trauma care, but those solutions do not contain the unique comprehensive combination of electrolytes, glucose, lactate and hydroxyethyl starch found in Hextend, PentaLyte, and HetaCool. The use of competing solutions has been reported to correlate with patient morbidity, fluid accumulation in body tissues, impaired blood clotting, and a disturbance of the delicate chemical balances on which most of the body's chemical reactions depend. One of these competing products is 6% hetastarch in saline solution. The United States Food and Drug Administration (the FDA) has required the manufacturers of 6% hetastarch in saline solutions to change their product labeling by adding a warning stating that those products are not recommended for use as a cardiac bypass prime solution, or while the patient is on cardiopulmonary bypass, or in the immediate period after the pump has been disconnected. We have not been required to add that warning to the labeling of Hextend.

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

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We have completed a Phase I clinical trial of PentaLyte involving a small number of subjects and have submitted our findings to the FDA. We plan to test PentaLyte for the treatment of hypovolemia in surgery. PentaLyte contains a lower molecular weight hydroxyethyl starch than Hextend, and is more quickly metabolized. PentaLyte is designed for use when short lasting volume expansion is desirable. Our ability to complete clinical studies of PentaLyte will depend on our cash resources and the costs involved, which are not presently determinable.

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

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

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

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

Hextend,<sup>®</sup> PentaLyte,<sup>®</sup> and HetaCool<sup>®</sup> are registered trademarks of BioTime, Inc.



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**RISK FACTORS**

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

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

Our ability to generate operating revenue depends upon our success in developing and marketing our products. We may not succeed in marketing our products and we may not receive sufficient revenues from product sales to meet our operating expenses or to earn a profit. In this regard, sales of Hextend to date have not been sufficient to generate an amount of royalties or licensing fees sufficient to cover our operating expenses. Factors that affect the marketing of our products include the following:

Hextend and our other plasma expander products will compete with other products that are commonly used in surgery and trauma care and sell at lower prices.

In order to compete with other products, particularly those that sell at lower prices, BioTime products will have to provide medically significant advantages.

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

Competing products are being manufactured and marketed by established pharmaceutical companies. For example, B. Braun/McGaw presently markets Hesperan, an artificial plasma volume expander, and Hospira and Baxter International, Inc. manufacture and sell a generic equivalent of Hesperan.

There also is a risk that our competitors may succeed in developing safer or more effective products that could render our products and technologies obsolete or noncompetitive.

**We Will Spend a Substantial Amount of Our Capital on Research and Development But We Might Not Succeed in Developing Products and Technologies That Are Useful In Medicine.**

We are attempting to develop new medical products and technologies.

Many of our experimental products and technologies have not been applied in human medicine and have only been used in laboratory studies on animals. These new products and technologies might not prove to be safe and efficacious in the human medical applications for which they were developed.

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The experimentation we are doing is costly, time consuming and uncertain as to its results. We incurred research and development expenses amounting to \$903,018 during 2003 and \$23,864,832 in total from BioTime's inception on November 30, 1990 through March 31, 2004.

If we are successful in developing a new technology or product, refinement of the new technology or product and definition of the practical applications and limitations of the technology or product may take years and require the expenditure of large sums of money. For example, we spent approximately \$5,000,000 on research and development of Hextend before commencing clinical trials on humans during October 1996. The cost of completing the Hextend clinical trials and preparing our FDA application was approximately \$3,000,000. These costs exclude corporate overhead included in general and administrative costs in our financial statements.

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

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

From November 1990, the date BioTime was incorporated, through March 31, 2004 we incurred \$37,000,186 of cumulative losses. Our net losses for the fiscal years ended December 31, 2001, 2002 and 2003 were \$3,658,825, \$2,844,932, and \$1,742,074, respectively. Our net loss for the three months ended March 31, 2004 was \$1,642,942. Our ability to generate sufficient operating revenue to earn a profit depends upon our success in developing and marketing or licensing our products and technology for medical use.

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

We plan to continue to incur substantial research, product development, and regulatory expenses, and we will need to raise additional capital to pay operating expenses until we are able to generate sufficient revenues from product sales, royalties, and license fees. We have not received an amount of royalties and licensing fees from the sale of Hextend sufficient to cover our operating expenses. As of March 31, 2004, we had \$2,119,803 of cash and cash equivalents on hand. At our current rate of spending, our cash on hand, license fees receivable, and

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anticipated royalties from Hospira, will allow us to operate through June 2005. The amount and pace of research and development work that we can do or sponsor, and our ability to commence and complete clinical trials required to obtain FDA and foreign regulatory approval of our products, depends upon the amount of money we have. We plan to spend at least \$1,000,000 on clinical trials of PentaLyte. The costs of clinical trials and future research work are not presently determinable due to many factors, including the inherent uncertainty of those costs and the uncertainty as to the timing, source, and amount of capital that will become available for those projects. We have already curtailed the pace of our product development efforts due to the limited amount of funds available, and we may have to postpone further laboratory and clinical studies, unless our cash resources increase through a growth in revenues or additional equity investment or borrowing. Although we will continue to seek licensing fees from pharmaceutical companies for licenses to manufacture and market our products abroad, it is likely that additional sales of equity or debt securities will be required to meet our short-term capital needs. Sales of additional equity securities could result in the dilution of the interests of present shareholders. We may not be able to raise a sufficient amount of additional funds to permit us to develop and market our products. Unless we are able to generate sufficient revenue or raise additional funds when needed, it is likely that we will be unable to continue our planned activities, even if we are making progress with our research and development projects.

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

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

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

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

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

**Risks Related to Our Industry**

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

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

The products that we develop cannot be sold until the FDA and corresponding foreign regulatory authorities approve the products for medical use. We have received FDA and Canadian approvals to market Hextend in the United States and Canada only. We have completed a Phase I clinical trial of PentaLyte that provided us with data concerning the safety of PentaLyte, and we plan to conduct clinical trials that will be necessary to demonstrate that PentaLyte can be used safely and effectively as a plasma volume expander in surgery.

The need to obtain regulatory approval to market a new product means that:

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

We will incur the expense and delay inherent in seeking FDA and foreign regulatory approval of new products. For example, 12 months elapsed between the date we filed our application to market Hextend in the United States and the date on which our application was approved. Approximately 36 months elapsed between the date we filed our application for approval to market Hextend in Canada, and the date on which our application was approved, even though we did not have to conduct any additional clinical trials. Our application to market Hextend in Sweden has been pending since August 2000.

A product that is approved may be subject to restrictions on use.

The FDA can recall or withdraw approval of a product if problems arise.

We will face similar regulatory issues in foreign countries.

**Our Patents May Not Protect Our Products From Competition**

We have patents in the United States, Canada, the European Union countries, Australia, Israel, Russia, South Africa, South Korea, Japan, Hong Kong, and Singapore, and have filed patent applications in other foreign countries for certain products, including Hextend, HetaCool, and PentaLyte. We might not be able to obtain any additional patents, and any patents that we do obtain might not be comprehensive enough to provide us with meaningful patent protection. Also, there will always be a risk that our competitors might be able to successfully challenge the validity or enforceability of any patent issued to us. The costs required to uphold the validity and prevent infringement of any patent issued to us could be substantial, and we might not have the resources available to defend our patent rights.

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

Success in selling our products may depend in part on the extent to which health insurance companies, HMOs, and government health administration authorities such as Medicare and Medicaid will pay for the cost of the products and related treatment. Presently, most health insurance plans and HMOs will pay for Hextend when it is used in a surgical procedure that is covered by the plan. However, until we actually introduce a new product into the medical market place we will not know with certainty whether adequate health insurance, HMO, and government coverage will be available to permit the product to be sold at a price high enough for us to generate a profit. In some foreign countries, pricing or profitability of health care products is subject to government control which may result in low prices for our products. In the United

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States, there have been a number of federal and state proposals to implement similar government controls, and new proposals are likely to be made in the future.

**Risks Pertaining to Our Common Shares**

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

**Because We Are a Drug Development Company, The Price Of Our Stock May Rise And Fall Rapidly**

The market price of BioTime shares and warrants, like that of the shares of many biotechnology companies, has been highly volatile. The price of BioTime shares and warrants may rise rapidly in response to certain events, such as the commencement of clinical trials of an experimental new drug, even though the outcome of those trials and the likelihood of ultimate FDA approval remain uncertain. Similarly, prices of BioTime shares and warrants may fall rapidly in response to certain events such as unfavorable results of clinical trials or a delay or failure to obtain FDA approval. The failure of our earnings to meet analysts' expectations could result in a significant rapid decline in the market price of our common shares and warrants. In addition, the stock market has experienced and continues to experience extreme price and volume fluctuations which have affected the market price of the equity securities of many biotechnology companies and which have often been unrelated to the operating performance of these companies. Broad market fluctuations, as well as general economic and political conditions, may adversely affect the market price of the common shares and warrants.

**Because BioTime Currently Does Not Meet Certain Exchange Continued Listing Requirements, the Shares and Warrants Could Be Delisted in the Future**

We are presently not in compliance with some of the American Stock Exchange (the "AMEX") continued listing standards in that we have shareholders' equity of less than \$4,000,000 and have incurred losses during each of the last three years, which could lead the AMEX to determine to delist BioTime shares and warrants. The AMEX has granted us an extension of time until April 2005 to regain compliance with the continued listing standards based upon a plan of compliance that we submitted. In order to comply with the continued listing standards, we need to have a total market capitalization (based upon the market price of our outstanding common shares) of at least \$50,000,000 (of which \$15,000,000 must be part of the public float) or we must have positive shareholders' equity of at least \$4,000,000 by April 2005. That means we will most likely have to raise additional equity capital in order to maintain the listing of the common shares and warrants on the AMEX. Raising additional equity capital could result in the dilution of the interests of the present shareholders. Failure to make progress consistent with the plan or to regain compliance with the continued listing standards by the end of the extension period could result in our common shares and warrants being delisted from the AMEX. We plan to use our best efforts to maintain the AMEX listing of our common shares, but if the common shares were to be delisted by the AMEX, the market

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value and liquidity for the common shares would be adversely affected and it could be more difficult for us to raise capital in the future. If the common shares were no longer traded on the AMEX, they could be traded in the over-the-counter market on an electronic bulletin board established for securities that do not meet the listing requirements of the Nasdaq stock market or the major national securities exchanges. Also, if our common shares were to be delisted by the AMEX, the warrants would be delisted as well.

**If the Common Shares and Warrants Were Delisted from the AMEX, They Could Be Subject to the So-called Penny Stock Rules That Impose Restrictive Sales Practice Requirements**

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

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

**Because We Do Not Pay Dividends, Our Stock May Not Be A Suitable Investment For Anyone Who Needs To Earn Dividend Income**

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

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**The Warrants Cannot Be Exercised Unless a Registration Statement is in Effect Under Federal and State Securities Laws.**

A registration statement under the Securities Act of 1933, as amended, must be in effect in order for warrant holders to exercise their warrants. This means that we will have to periodically update our registration statement and prospectus by filing post-effective amendments and by filing our annual report on Form 10-K, our quarterly reports on Form 10-Q, and current reports on Form 8-K as required under the Securities Exchange Act of 1934, as amended. We intend to use our best efforts to keep our registration statement effective. However, if we are unable to do so for any reason, warrant holders would not be able to exercise their warrants, even if the market price of our common shares was then greater than the exercise price.

So long as our common shares are listed on the AMEX, they will be exempt from registration or qualification under state securities laws, but that exemption would be lost if the shares were to be delisted from the AMEX and not subsequently listed on the Nasdaq Stock Market or a regional securities exchange for which an exemption would apply under the various state laws. If our common shares are not exempt from state registration or qualification, most states will require us to obtain a permit, issued through an application for registration or qualification, and to maintain that permit in effect in order for warrant holders in the state to exercise their warrants.



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The net cash proceeds receivable by BioTime from the exercise of 2,780,069 warrants will be \$5,560,138. We intend to use the proceeds from the exercise of the warrants as shown in the following table.

<b>Application</b>	<b>Estimated Amount</b>	<b>Percent of Total</b>
Research and Development	\$3,336,083	60%
Working Capital	\$2,224,055	40%
Total	<b>\$5,560,138</b>	<b>100%</b>

*Research and Development.* Proceeds allocated to research and development may be used to finance clinical trials of PentaLyte and additional clinical trials of Hextend, initial clinical trials of HetaCool, and laboratory testing of other products we are developing. 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. We may also use a portion of the proceeds to fund the cost of seeking regulatory approval of our products.

We have completed a Phase I clinical trial of PentaLyte and we are planning the next phase of clinical trials in which PentaLyte will be used to treat hypovolemia in surgery. We have spent approximately \$2,046,889 in direct costs through March 31, 2004 developing PentaLyte. If Hospira obtains a license to manufacture and market PentaLyte under our Exclusive License Agreement with them, they would reimburse us for our direct costs incurred in developing PentaLyte. Hospira's decision whether to license PentaLyte would follow the completion of our Phase II trial, or if we proceed directly into a Phase II/II trial, the first successful human use in that trial.

*Working Capital.* We intend to apply the balance of the proceeds of the rights offer to working capital and general corporate purposes. We will have broad discretion with respect to the use of proceeds retained as working capital. The proceeds may be used to defray overhead

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expenses and for future opportunities and contingencies that may arise. We expect that our general and administrative expenses will increase as we achieve progress in developing products and bringing them to market. For example, a portion of the proceeds allocated to working capital may be used to pay the salaries, benefits and fees to employees and consultants who assist in the 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 our products.

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

Until used, the net proceeds of the rights 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**

BioTime's Articles of Incorporation currently authorize the issuance of up to 40,000,000 common shares, no par value, of which 17,811,450 shares were outstanding at June 2, 2004 and held by 7,145 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 that purpose. BioTime has not paid any cash dividends on our common shares, and it is unlikely that any cash dividends will be declared or paid on any common shares in the foreseeable future. Instead, BioTime plans to retain our cash for use in financing our future operations and growth.

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

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**Preferred Shares**

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

**Warrants**

Each full warrant entitles the holder to purchase one common share at a price of \$2.00 per share. The number of common shares and exercise price will be proportionally adjusted in the event of a stock split, stock dividend, combination or similar recapitalization of the common shares. The warrants will expire on January 14, 2007 and may not be exercised after that date.

Warrants may be exercised in whole or in part by presentation of a warrant certificate to the warrant agent and payment of the exercise price. The purchase form on the reverse side of the warrant must be signed by the warrant holder and the warrant holder's signature must be guaranteed by a financial institution that is a participant in a recognized signature guarantee program. Payment of the exercise price of the warrants must be made in cash or by certified or bank cashier's check or wire transfer. If your warrants are held in the name of Cede & Co. as nominee for The Depository Trust Company, or in the name of any other depository or nominee, you should contact your broker-dealer or other financial institution that holds your warrants in order to exercise them.

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

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

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**Transfer Agent, Warrant Agent, and Registrar**

The transfer agent, warrant agent, and registrar for the common shares and warrants is American Stock Transfer and Trust Company, 40 Wall Street, New York, New York 10005.

**RESALE OF SHARES AND WARRANTS**

During January 2004, we completed a subscription rights offer through which we sold 2,560,303 common shares and 1,280,073 warrants to persons who exercised subscription rights. Following the completion of the rights offer, we sold an additional 428,571 common shares and 214,284 warrants under a Standby Purchase Agreement to certain persons who acted as Guarantors of the rights offer or who were assignees of one of the Guarantors. The common shares and warrants were sold as units for \$1.40 per unit. Each unit consisted of one common share and one-half of a warrant. We also issued 250,000 warrants to the Guarantors and 500,000 warrants to person who acted as Participating Debenture Holders under the Standby Purchase Agreement in consideration of their agreement to acquire any units that might remain unsold at the conclusion of the rights offer, excluding units reserved to fill over-subscriptions and subject to a maximum purchase obligation of \$2,250,000.

During February 2004, we issued a total of 1,071,428 common shares and 535,712 warrants in exchange for \$1,500,000 of debentures held by certain persons who acted as Participating Debenture Holders under the Standby Purchase Agreement. The Guarantors and Participating Debenture Holders were underwriters of the subscription rights offer under the Securities Act of 1933, as amended. The Guarantors were Dr. Cynthia Bayern, Alfred D. Kingsley, and George Karfunkel. The Participating Debenture Holders were Alfred D. Kingsley, George Karfunkel, Camco Tactical Return Partners, LP and Goren Brothers, LP. Mr. Kingsley beneficially owns more than 5% of the outstanding common shares and warrants of BioTime.

The Guarantors and Participating Debenture Holders have advised us that they may hold for investment purposes any common shares and warrants they acquired, or they may sell common shares and warrants from time to time on the AMEX at prevailing market prices, or at prices related to the prevailing market price, or in privately negotiated transactions. They also may sell common shares in connection with the exercise of their warrants or they may hold those shares for investment purposes and sell them at later date.

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

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The Guarantors and Participating Debenture Holders have advised us that during the time that they may be engaged in a distribution of their common shares and warrants they will (a) not engage in any stabilization activity in connection with BioTime securities, (b) cause to be furnished to each broker through whom their shares or warrants may be offered the number of copies of this prospectus required by the broker, and (c) not bid for or purchase any BioTime securities or rights to acquire BioTime securities, or attempt to induce any person do so, other than as permitted under the Securities Exchange Act of 1934, as amended. The Guarantors and Participating Debenture Holders and any broker-dealers who participate in the sale of their common shares and warrants may be deemed to be underwriters as defined in the Act. Any commissions paid or any discounts or concessions allowed to any broker-dealers in connection with the sale of the common shares and warrants, and any profits received on the resale of any shares and warrants purchased by broker-dealers as principals, may be deemed to be underwriting discounts and commissions under the Act.

**LEGAL MATTERS**

The validity of the rights, common shares, and warrants will be passed upon for BioTime by Lippenberger, Thompson, Welch, Soroko & Gilbert LLP, San Francisco and Corte Madera, California.

**EXPERTS**

The financial statements incorporated by reference in this prospectus have been audited by BDO Seidman, LLP, independent registered public accounting firm, to the extent and for the periods set forth in their report (which contains an explanatory paragraph related to the development stage of BioTime's operations) incorporated herein by reference, and are incorporated herein in reliance upon such report given upon the authority of said firm as experts in accounting and auditing.

The financial statements for the year ended December 31, 2001 incorporated in this prospectus by reference from the BioTime Annual Report on Form 10-K for the year ended December 31, 2003 have been audited by Deloitte & Touche LLP, independent registered public accounting firm, as stated in their report, which is incorporated herein by reference (which report expresses an unqualified opinion and includes an explanatory paragraph related to the development stage of BioTime's operations), and have been so incorporated in reliance upon the report of such firm given upon their authority as experts in accounting and auditing.

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**ADDITIONAL INFORMATION ABOUT BIOTIME**

This prospectus is accompanied by a copy of our Annual Report on Form 10-K for the year ended December 31, 2003 and our Quarterly Report on Form 10-Q for the three months ended March 31, 2004, which contain important information about us.

**INCORPORATION OF CERTAIN INFORMATION BY REFERENCE**

BioTime's Annual Report on Form 10-K for the fiscal year ended December 31, 2003, Quarterly Report on Form 10-Q for the period ended March 31, 2004, and Current Reports on Form 8-K filed June 3, 2004, and all other reports filed by BioTime pursuant to Sections 13(a), 13(c), 14, 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. Descriptions of the common shares and warrants contained in Registration Statements on Form 8-A filed under the Securities Exchange Act of 1934, as amended, are also incorporated into this prospectus by reference. BioTime will provide without charge to each person, including any beneficial owner, to whom a prospectus is delivered, upon written or oral request of such person, a copy of any and all of the information that has been incorporated by reference but not delivered with this prospectus. Such requests may be addressed to the Secretary of BioTime at 935 Pardee Street, Berkeley, California 94710; Telephone: (510) 845-9535.

BioTime 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 BioTime 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**

BioTime has filed with the Securities and Exchange Commission, 450 Fifth Street, N.W., Washington, D.C. a registration statement on Form S-2 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 BioTime 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

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referred to are not necessarily complete. In each instance reference is made to the copy of the contract or other document filed as an exhibit to the registration statement, and each such statement is qualified in all respects by reference to the exhibit.

**Table of Contents****PART II****INFORMATION NOT REQUIRED IN PROSPECTUS****Item 15. Indemnification of Directors and Officers.**

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

**Item 16. Exhibits and Financial Statement Schedules.**

<b>Exhibit Numbers</b>	<b>Description</b>
3.1	Articles of Incorporation, as Amended.
3.2	By-Laws, As Amended.#
4.1	Specimen of Common Share Certificate.+
4.2	Form of Warrant++
4.3	Form of Warrant Agreement between BioTime, Inc. and American Stock Transfer & Trust Company++
5.1	Opinion of Counsel++
10.1	Lease Agreement dated July 1, 1994 between the Registrant and Robert and Norah Brower, relating to principal executive offices of the Registrant.*
10.2	Intellectual Property Agreement between BioTime, Inc. and Hal Sternberg.+
10.3	Intellectual Property Agreement between BioTime, Inc. and Harold Waitz.+
10.4	Intellectual Property Agreement between BioTime, Inc. and Judith Segall.+
10.5	Intellectual Property Agreement between BioTime, Inc. and Steven Seinberg.**
10.6	Agreement between CMSI and BioTime Officers Releasing Employment Agreements, Selling Shares, and Transferring Non-Exclusive License.+



10.7 Agreement for Trans Time, Inc. to Exchange CMSI Common Stock for BioTime, Inc. Common Shares.+

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10.8	2002 Stock Option Plan, as amended.##
10.9	Addenda to Lease Agreement between BioTime, Inc. and Donn Logan.
10.10	Exclusive License Agreement between Abbott Laboratories and BioTime, Inc. (Portions of this exhibit have been omitted pursuant to a request for confidential treatment).###
10.11	Modification of Exclusive License Agreement between Abbott Laboratories and BioTime, Inc. (Portions of this exhibit have been omitted pursuant to a request for confidential treatment).^^^
10.12	Warrant Agreement, dated March 27, 2001, between BioTime, Inc. and Alfred D.Kingsley
10.13	Form of Series 2001-A 10% Debenture due August 1, 2004
10.14	Warrant Agreement between BioTime, Inc. and Purchasers of Series 2001-A Debentures
10.15	Warrant Agreement, dated March 27, 2002, between BioTime, Inc. and Alfred D. Kingsley**
10.16	Warrant for the Purchase of Common Shares, dated August 12, 2002, issued to Ladenburg Thalmann & Co. Inc.***
10.17	Exclusive License Agreement between BioTime, Inc. and CJ Corp.****
10.18	Warrant Agreement between BioTime, Inc. and certain holders of Series 2001-A Debentures*****
10.19	Addendum to Lease, dated March 12, 2004, between BioTime, Inc. as lessee, and Donn Logan and Marcy Li Wong as lessor
23.1	Consent of BDO Seidman, LLP
23.2	Consent of Deloitte & Touche, LLP Incorporated by reference to BioTime's Form 10-K for the fiscal year ended June 30, 1998.

+ 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.

++Previously filed.

# Incorporated by reference to Registration Statement on Form S-1, File Number 33-48717 and Post-Effective Amendment No. 1 thereto filed with the Securities and Exchange Commission on June 22, 1992, and August 27, 1992, respectively.

\* Incorporated by reference to BioTime's Form 10-K for the fiscal year ended June 30, 1994.

^ Incorporated by reference to BioTime's Form 10-Q for the quarter ended March 31, 1997.

## Incorporated by reference to Registration Statement on Form S-8, File Number 333-101651 filed with the Securities and Exchange Commission on December 4, 2002.

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^^ Incorporated by reference to BioTime s Form 10-Q for the quarter ended March 31, 1999.

### Incorporated by reference to BioTime s Form 8-K, filed April 24, 1997.

^^^ Incorporated by reference to BioTime s Form 10-Q for the quarter ended June 30, 1999.

Incorporated by reference to BioTime s Form 10-K for the year ended December 31, 1999.

Incorporated by reference to BioTime s Form 10-K for the year ended December 31, 2000.

Incorporated by reference to BioTime s Form 10-Q for the quarter ended June 30, 2001.

\*\* Incorporated by reference to BioTime s Form 10-K for the year ended December 31, 2001.

\*\*\* Incorporated by reference to BioTime s Form 10-Q for the quarter ended June 30, 2002.

\*\*\*\* Incorporated by reference to BioTime s Form 10-K/A-1 for the year ended December 31, 2002.

Incorporated by reference to BioTime s Form 10-K for the year ended December 31, 2003.

Filed herewith

**Item 17. Undertakings.**

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

The undersigned registrant hereby undertakes:

- (1) To file during any period in which offers or sales are made, a post-effective amendment to this registration statement:
  - (i) To include any prospectus required by section 10(a)(3) of the Securities Act of 1933;
  - (ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate represent a fundamental change in the information set forth in the registration statement;

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- (iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement.
- (2) That for the purpose of determining any liability under the Securities Act of 1933, each post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

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.



KATHERINE GORDON

Director

\_\_\_\_\_,2004

\_\_\_\_\_  
MICHAEL D. WEST

**\*The Office of the President is composed of three executive officers of the registrant who collectively exercise the powers of the Chief Executive Officer.)**

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