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SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

X ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE
SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended June 30, 1998

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE
SECURITIES EXCHANGE ACT OF 1934

For the transition period from to

Commission file number 1-12830

BioTime, Inc.

(Exact name of registrant as specified in its charter)

California 94-3127919
(State or other jurisdiction of (I.R.S. Employer
incorporation or organization) Identification No.)

935 Pardee Street, Berkeley, California 94710
(Address of principal executive offices) (Zip Code)

Registrant's telephone number, including area code (510) 845-9535

Securities registered pursuant to Section 12(g)

of the Act:

Common Shares, no par value
(Title of Class)

Indicate by check mark whether the registrant (1) has filed all reports
required to be filed by Section 13 or 15(d) of the Securities Exchange Act of
1934 during the preceding 12 months (or for such shorter period that the
registrant was required to file such reports), and (2) has been subject to such
filing requirements for the past 90 days. Yes X No

Indicate by check mark if disclosure of delinquent filers pursuant to
Item 405 of Regulation S-K is not contained herein, and will not be contained,
to the best of registrant's knowledge, in definitive proxy or information
statements incorporated by reference in Part III of this Form 10-K or any
amendment to this Form 10-K. [ ]

The approximate aggregate market value of voting stock held by nonaffiliates of
the registrant was \$73,207,651 as of September 22, 1998.

10,026,579

(Number of Common Shares outstanding as of September 22, 1998)

Documents Incorporated by Reference

None

PART I

Item 1. Description of Business

Overview

BioTime, Inc. (the "Company" or "BioTime") is a development stage
company engaged in the research and development of aqueous based synthetic
solutions that can be used as blood plasma volume expanders, blood substitutes
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. The Company is 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.

The Company's first three blood replacement products, Hextend, (R)
PentaLyte, (R) and HetaCool, TM have been formulated to maintain the patient's
tissue and organ function by sustaining the patient's fluid volume and
physiological balance. Various colloid and crystalloid products 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 constituents that may prevent or reduce the physiological
imbalances that can cause those problems. Albumin produced from human plasma is
also currently used as a plasma expander, but it is expensive and subject to
supply shortages, and a recent FDA warning has cautioned physicians about the
risk of administering albumin to seriously ill patients.

Based upon the results of its clinical studies and laboratory research,
the Company has determined that in many emergency care and surgical applications

it is not necessary for a plasma volume expander to include special oxygen carrying molecules to replace red blood cells. Therefore, the Company is developing formulations that do not use costly and potentially toxic oxygen carrying molecules such as synthetic hemoglobin and perfluorocarbons.

During March 1998, the Company completed the submission of its New Drug Application ("NDA") to the United States Food and Drug Administration ("FDA"), seeking approval to market Hextend in the United States. The chemistry, manufacturing and control data for the NDA was submitted to the FDA during December 1997. The NDA includes data from the Company's 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. The Company believes 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 BioTime 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. BioTime has retained all rights to manufacture, sell or license Hextend and other products in all other countries.

Under the License Agreement, Abbott has agreed to pay BioTime up to \$40,000,000 in license fees based upon product sales and the achievement of certain milestones. So far, Company has received \$1,650,000 of license fee milestone payments, including a payment of \$250,000 during May 1998 for achieving the milestone of filing an NDA for Hextend. In addition to the license fees, Abbott will pay BioTime 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 has 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 the Company that Abbott will supply BioTime with batches of PentaLyte, characterization and stability studies, and other regulatory support needed for BioTime to file for an IND and to conduct clinical studies.

The Company intends to enter global markets through licensing agreements with over-seas pharmaceutical companies. By licensing its products abroad, the Company will avoid the capital costs and delays inherent in acquiring or establishing its own pharmaceutical manufacturing facilities and establishing an international marketing organization. A number of pharmaceutical companies in Europe, Asia and other markets around the world have expressed their interest in obtaining licenses to manufacture and market the Company's products. Representatives of the Company and Nihon Pharmaceutical Company, Ltd. ("Nihon") met in Japan to discuss the development of BioTime products for the Japanese market, and the development of a clinical trial program to obtain Japanese regulatory approval. Nihon and the Company previously signed a letter of intent to negotiate a licensing agreement to manufacture and market BioTime products in Japan. Nihon is a subsidiary of Takeda Chemical Industries, Japan's largest pharmaceutical manufacturer. The

Company is continuing to meet with representatives of companies in other territories to discuss and negotiate potential agreements.

The Company is also pursuing a global clinical trial strategy, the goal of which is to permit the Company 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, the Company may be able to file applications for foreign regulatory approval of its products based upon the results of the United States clinical trials. Based upon discussions with the Canadian Bureau of Pharmaceutical Assessment, the Company plans to file for Canadian market approval based the results of its United States clinical trials. Regulatory approvals for countries that are members of the European Union may be obtained through a mutual recognition procedure. The Company plans to determine whether one more member nations would 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 the Company would be permitted to market Hextend in all 16 member nations.

The Company plans 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 60 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. The Company believes that in a study involving geriatric patients the advantages of Hextend will most clearly and consistently be seen. The Company has submitted a Clinical Trials Exemption ("CTX") notification to the Department of Health, Medicines Control Agency of the United Kingdom for permission to conduct the study. After approval of the CTX, 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.

The Company 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.

## Products for Surgery, Plasma Replacement and Emergency Care

### The Market for Plasma Volume Expanders

The Company is developing Hextend, PentaLyte, HetaCool and other synthetic plasma expander solutions to treat acute blood loss that occurs during many kinds of surgery. The solutions could also be used by emergency room physicians or by paramedics to treat acute blood loss in trauma victims being transported to the hospital.

Approximately 10,000,000 surgeries take place in the United States each year, and blood transfusions are required in approximately 2,500,000 of those cases. Transfusions are also required to treat patients suffering severe blood loss due to traumatic injury. Many more surgical and trauma cases do not require blood transfusions but do involve significant bleeding that can place the patient at risk of suffering from shock caused by the loss of fluid volume (hypovolemia) and physiological balance. Whole blood, packed red cells, or blood plasma generally cannot be administered to a patient until the patient's blood serum has been typed and sufficient units of compatible blood or red cells can be located. Periodic shortages of supply of donated human blood are not uncommon, and rare blood types are often difficult to locate. The use of human blood products also poses the risk of exposing the patient to blood borne diseases such as AIDS and hepatitis.

Due to the risks and cost of using human blood products, even when a sufficient supply of compatible blood is available, physicians treating patients suffering blood loss are generally not permitted to transfuse red blood cells until the patient's level of red blood cells has fallen to a level known as the "transfusion trigger." During the course of surgery, while blood volume is being lost, the patient is infused with plasma volume expanders to maintain adequate blood circulation. During the surgical procedure, red blood cells are not replaced until the patient has lost approximately 45% to 50% of their red blood cells, thus reaching the transfusion trigger at which point the transfusion of red blood cells may be required. After the transfusion of red blood cells, the patient may continue to experience blood volume loss, which will be replaced with plasma volume expanders. Even in those patients who do not require a transfusion, physicians routinely administer plasma volume expanders to maintain sufficient fluid volume to permit the available red blood cells to circulate throughout the body and to maintain the patient's physiological balance.

Several units of fluid replacement products are often administered during surgery. The number of units will vary depending upon the amount of blood loss and the kind of plasma volume expander administered. Crystalloid products must be used in larger volumes than colloid products such as Hextend.

The plasma volume expanders marketed by other companies have certain draw backs. The use of those products can contribute to patient morbidity, including conditions such as hypovolemia, edema, impaired blood clotting, acidosis, and other biochemical imbalances. Albumin produced from human plasma is expensive and subject to supply shortages, and a recent FDA warning has cautioned physicians about the risk of administering albumin to seriously ill patients. In contrast,

Hextend, PentaLyte, and HetaCool contain constituents that may prevent or reduce the physiological imbalances that can be the problems associated with the use of other plasma volume expanders, and because the Company's products are synthetic they can be manufactured in large volumes.

#### The Market for Products for Hypothermic Surgery

Approximately 400,000 coronary bypass and other open heart surgeries are performed in the United States annually, and approximately 18,000 aneurysm surgeries and 4,000 arterio-venous malformation surgeries were performed in the United States during 1989. Those procedures often require the use of cardio-pulmonary bypass equipment to do the work of the heart and lungs during the surgery. During open heart surgery and surgical procedures for the treatment of certain cardiovascular conditions such as large aneurysms, cardiovascular abnormalities and damaged blood vessels in the brain, surgeons must temporarily interrupt the flow of blood through the body. Interruption of blood flow can be maintained only for short periods of time at normal body temperatures because many critical organs, particularly the brain, are quickly damaged by the resultant loss of oxygen. As a result, certain surgical procedures are performed at low temperatures because lower body temperature helps to minimize the chance of damage to the patient's organs by reducing the patient's metabolic rate, thereby decreasing the patient's needs during surgery for oxygen and nutrients which normally flow through the blood.

Current technology limits the degree to which surgeons can lower a patient's temperature and the amount of time the patient can be maintained at a low body temperature because blood, even when diluted, cannot be circulated through the body at near-freezing temperatures. As a result, surgeons face severe time constraints in performing surgical procedures requiring blood flow interruption, and those time limitations prevent surgeons from correcting certain cardiovascular abnormalities.

#### Hextend, PentaLyte and HetaCool

The Company's first three blood replacement products, 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. Hextend, PentaLyte, and HetaCool, are composed of a hydroxyethyl starch, electrolytes, sugar and a buffer in an aqueous base. Hextend and HetaCool use a high molecular weight hydroxyethyl starch (hetastarch) whereas PentaLyte uses a low molecular weight hydroxyethyl starch (pentastarch). The hetastarch is retained in the blood longer than the pentastarch, which may make Hextend and HetaCool the products of choice when a larger volume of plasma expander or blood substitute for low temperature surgery is needed or where the patient's ability to restore his own blood proteins after surgery is compromised. PentaLyte, with pentastarch, would be eliminated from the blood faster than Hextend and HetaCool and might be used when less plasma expander is needed or where the patient is more capable of quickly restoring lost blood proteins. BioTime believes that by testing and bringing all three products to the market, it can increase its market share by providing the medical community with solutions to match patients' needs.

Results from certain laboratory tests indicate that Hextend and PentaLyte may prove more effective at maintaining blood calcium levels than the leading domestically available plasma extender when used to replace large volumes of blood. Calcium can be a significant factor in regulating blood clotting and cardiac function. Results from other in vitro tests of Hextend indicate that Hextend does not alter the activity of a number of specific blood clotting factors, other than by simple hemodilution.

BioTime has not attempted to synthesize potentially toxic and costly oxygen carrying molecules such as hemoglobin because the loss of fluid volume and physiological balance may contribute as much to shock as the loss of the oxygen carrying component of the blood. Surgical and trauma patients are routinely given supplemental oxygen and retain a substantial portion of their own red blood cells. Whole blood or packed red blood cells are generally not transfused during surgery or in trauma care until several units of plasma or plasma volume expanders have been administered and the patient's hematocrit has fallen to the transfusion trigger. Therefore, the lack of oxygen carrying molecules in the Company's solutions should not pose a significant contraindication to use.

Experiments by BioTime scientists have demonstrated that laboratory animals are able to survive at normal temperatures and without supplemental oxygen when more than two-thirds of their circulating blood volume is replaced by Hextend and/or PentaLyte. When animals are placed in an oxygen rich environment, they are able to survive at normal temperatures when even more of their circulating blood volume is replaced by Hextend.

Hextend is BioTime's proprietary hetastarch-based synthetic blood plasma volume expander, designed especially to treat hypovolemia in surgery and trauma care where patients experience a large amount of blood loss. The Company has submitted an NDA to the FDA seeking approval to market Hextend in the United States. The NDA includes data from the Company's 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 during surgery or as a result of injury. 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. The Company believes 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.

BioTime also plans to test the use of Hextend as cardio-pulmonary bypass circuit priming solution. In order to perform heart surgery, the patient's heart must be stopped and mechanical apparatus is used to oxygenate and circulate the blood. The cardio-pulmonary bypass apparatus requires a blood compatible fluid such as Hextend to commence and maintain the process of

diverting the patient's blood from the heart and lungs to the mechanical oxygenator and pump.

BioTime believes that Hextend will maintain blood pressure and physiological balance better than the solutions presently used as bypass priming solutions. Approximately 2 liters of Hextend would be used for each bypass operation. Based upon the number of coronary bypass operations performed, the potential market for Hextend as a bypass circuit priming solution in the United States would be about 800,000 liters annually.

PentaLyte is BioTime's 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. PentaLyte combines the physiologically balanced Hextend formulation with pentastarch that has a lower molecular weight and degree of substitution than the hetastarch used in Hextend.

HetaCool is a modified formulation of Hextend. HetaCool is specifically designed for use at low temperatures. Surgeons are already using a variety of other solutions to carry out certain limited procedures involving shorter term (up to nearly one hour) arrest of brain and heart function at temperatures between 15o and 25o C. However, BioTime is not aware of any fluid currently used in medical practice or any medically-approved protocol allowing operations which can completely replace all of a patient's blood at temperatures close to the ice point. The Company believes that very low temperature bloodless surgical techniques could be developed for open heart and minimally invasive closed chest cardiovascular surgeries, and removal of tumors from the brain, head, neck, heart, and other areas.

The Company is in the process of preparing an amendment to its Hextend IND application to conduct preliminary clinical trials to use HetaCool as a cardio-pulmonary bypass circuit priming solution in low temperature cardio-vascular surgery, as a step to preparing an amended IND application to conduct clinical trials using HetaCool as a solution to replace all of a patient's circulating blood volume during profound hypothermic (carried out at near-freezing temperatures) surgical procedures. The experimental protocol for the planned blood replacement clinical trial is being tested on animal subjects at Baylor University Medical Center and Mt. Sinai Medical Center. HetaCool would be introduced into the patient's body during the cooling process. Once the patient's



body temperature is nearly ice cold, and heart and brain function are temporarily arrested, the surgeon would perform the operation. During the surgery, HetaCool may be circulated throughout the body in place of blood, or the circulation may be arrested for a period of time if an interruption of fluid circulation is required. Upon completion of the surgery, the patient would be slowly warmed and blood would be transfused.

Cardiac surgeons are working to develop innovative procedures to repair damaged coronary arteries and heart valves. If optically guided surgical instruments can be inserted into the heart through blood vessels or small incisions, there may be no need to open the patient's chest cavity. BioTime believes that HetaCool may be useful in these minimally invasive closed chest cardiac procedures because the solution is transparent and if it were used to completely replace blood at low temperatures it would permit surgeons to use their optically guided instruments inside the heart or blood vessels without having their view obstructed by blood. The use of BioTime's solutions may also allow better control over stopping and starting the heart, as well as extending the time period of such surgeries. BioTime intends to conduct a series of laboratory studies using animal subjects to test the utility of HetaCool as a low temperature blood substitute in such procedures.

HetaCool has been used to completely replace the blood volume of hamsters, dogs and baboons at temperatures approaching freezing. Many of these animal subjects survived long term after hypothermic blood substitution with HetaCool. In these laboratory tests, the animals' blood was replaced by HetaCool and they were chilled for one to more than four hours with deep body temperatures between 10C and 100C.

## Organ Transplant Products

### The Market for Organ Preservation Solutions

Organ transplant surgery is a growing field. Approximately 5,000 donors donate organs, and approximately an additional 5,000 donors donate skin, bone and other tissues in the United States each year. As more surgeons have gained the necessary expertise and surgical methods have been refined, the number of transplant procedures has increased, as has the percentage of successful transplants. Organ transplant surgeons and their patients face two major obstacles, namely the shortage of available organs from donors, and the limited amount of time that a transplantable organ can be kept viable between the time it is harvested from the donor and the time it is transplanted into the recipient.

The scarcity of transplantable organs makes them too precious to lose and increases the importance of effective preservation technology and products. Current organ removal and preservation technology generally requires multiple preservation solutions to remove and preserve effectively different groups of organs. The removal of one organ can impair the viability of other organs. Available technology does not permit surgeons to keep the remaining organs viable within the donor's body for a significant time after the first organ is removed. Currently, an organ available

for transplant is flushed with an ice cold solution during the removal process to deactivate the organ and preserve its tissues, and then the organ is transported on ice to the donee. The ice cold solutions currently used, together with transportation on ice, keep the organ healthy for only a short period of time. For example, the storage time for hearts is limited to approximately six hours. Because of the short time span available for removal and transplant of an organ, potential organ donees may not receive the needed organs.

BioTime is seeking to address this problem by developing a more effective organ preservation solution that will permit surgeons to harvest all transplantable organs from a single donor. The Company believes that preserving the viability of all transplantable organs and tissues simultaneously, at low temperatures, would extend by several hours the time span in which the organs can be preserved prior to transplant.

Using HetaCool for Multi-Organ Preservation. The Company is seeking to develop HetaCool for use as a single solution that can simultaneously preserve all of a single donor's organs. When used as an organ preservation solution, HetaCool would be perfused into the donor's body while the body is chilled, thereby eliminating an undesirable condition called "warm ischemia," caused when an organ is warm while its blood supply is interrupted. The use of HetaCool in conjunction with the chilling of the body should help to slow down the process of organ deterioration by a number of hours so that a surgeon can remove all organs for donation and transplant. The Company's current estimates are that each such preservation procedure could require at least 50 liters of HetaCool.

The Company believes that the ability to replace an animal's blood with the Company's solution, to maintain the animal at near freezing temperatures for several hours, and then revive the animal, would demonstrate that the solution could be used for multi-organ preservation. Company scientists have revived animals after more than six hours of cold blood-substitution, and have observed heart function in animals maintained cold and blood-substituted for more than eight hours. An objective of the Company's research and development program is to extend the time span in which animal subjects can be maintained in a cold, blood-substituted state before revival or removal of organs for transplant purposes. Organ transplant procedures using animal subjects could then be conducted to test the effectiveness of Hextend as an organ preservative.

#### Long-term Tissue and Organ Banking

The development of marketable products and technologies for the preservation of tissues and vital organs for weeks and months is a long-range goal of the Company's research and development plan. To permit such long-term organ banking the Company is attempting to develop products and technologies that can protect tissues and organs from the damage that occurs when human tissues are subjected to subfreezing temperatures.

HetaFreeze is one of a family of BioTime's freeze-protective solutions which may ultimately allow the extension of time during which organs and tissues can be stored for future transplant or

surgical grafting. In laboratory experiments, BioTime's proprietary freeze-protective compounds have already been used to preserve skin when used as a whole animal perfusate. Silver dollar size full thickness shaved skin samples have been removed after saturation with HetaFreeze solution, frozen at liquid nitrogen temperatures and stored for periods ranging from days to weeks. The grafts were then warmed and sewn onto the backs of host animals. Many of these grafts survived.

In other laboratory experiments, BioTime scientists have shown that animals can be revived to consciousness after partial freezing with their blood replaced by HetaFreeze. While this technology has not developed to an extent that allows long term survival of the laboratory subjects, and their organs, a better understanding of the effects of partial freezing could allow for extended preservation times for vital organs, skin and blood vessels.

#### Other Potential Uses of BioTime Solutions

Isolated regional perfusion of anti-cancer drugs has been used to treat melanoma of the limbs, and inoperable tumors of the liver. The Company believes that employing such a procedure while the patient is kept in ice-cold blood-substitution may allow high doses of toxic anti-cancer drugs to be directed at inoperable tumors within vital organs. Keeping the rest of the patient in a cold, blood substituted state may reduce or eliminate the circulation of the toxic drugs to healthy tissues.

BioTime considers such surgical techniques to be a longer range goal of its research and development program for hypothermic surgery products. Use of this complex technology in the practice of oncology can occur only after ice-cold blood-substitution has advanced to an appropriate level of safety and effectiveness.

#### Research and Development Strategy

From inception through June 30, 1998, the Company has spent \$9,958,128 on research and development. The greatest portion of BioTime's research and development efforts have been devoted to the development of Hextend, PentaLyte and HetaCool for conventional surgery, emergency care, low temperature surgery, and multi-organ preservation. A lesser portion of the Company's research and development efforts have been devoted to developing solutions and protocols for storing organs and tissues at subfreezing temperatures. In the future the Company may explore other applications of its products and technologies, including cancer chemotherapy. As the first products achieve market entry, more effort will be expended to bring the next tier of products to maturity.

One major focus of the Company's research and development effort has been on products and technology to extend the time animals can be kept cold and blood-substituted, and then revived without physical impairment. An integral part of that effort has been the development of techniques and procedures or "protocols" for use of the Company's products. A substantial amount of data has

been accumulated through animal tests, including the proper surgical techniques, drugs and anesthetics, the temperatures and pressures at which blood and blood substitutes should be removed, restored and circulated, solution volume, the temperature range, and times, for maintaining circulatory arrest, and the rate at which the subject should be rewarmed.

Experiments intended to test the efficacy of the Company's blood replacement solutions and protocols for surgical applications involve replacing the animal's blood with low temperature blood substitute solution, maintaining the animal in a cold blood-substituted state for a period of time, and then attempting to revive the animal. Experiments for multi-organ preservation involve the maintenance of the animal subjects at cold temperatures for longer periods of time than would be required for many surgical applications, followed by transplant procedures to test the viability of one or more of the subject's vital organs.

The Company is conducting experiments at hospital and medical school research facilities. These collaborative research programs are testing solutions and protocols developed in the Company's laboratories and, in some cases, comparing the efficacy of the Company's blood substitute solutions with commercially available FDA approved products manufactured by other companies. The Company intends to continue to foster relations with research hospitals and medical schools for the purpose of conducting collaborative research projects because it believes that such projects will introduce the Company's potential products to members of the medical profession and provide the Company with objective product evaluations from independent research physicians and surgeons.

#### Licensing

On April 23, 1997, the Company and Abbott entered into a License Agreement under which the Company 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 where the patient's body temperature is lower than 12(degrees)C ("Hypothermic Use"), or replacement of substantially all of a patient's circulating blood volume ("Total Body Washout"). The Company has retained all rights to manufacture, sell or license Hextend and other products in all other countries.

Under the License Agreement, Abbott has agreed to pay the Company up to \$40,000,000 in license fees, of which \$1,650,000 has been paid to date, and an additional \$850,000 will become payable in installments upon the achievement of specific milestones pertaining to the approval of the Company's NDA for Hextend and the commencement of sales of the product. Up to \$37,500,000 of additional license fees will be payable based upon annual net sales of Hextend, at the rate of 10% of annual net sales if annual net sales exceed \$30,000,000 or 5% if annual net sales are between \$15,000,000 and \$30,000,000. Abbott's obligation to pay licensing fees on sales of Hextend will expire on the earlier of January 1, 2007 or, on a country by country basis, when all patents protecting Hextend in the applicable country expire or any third party obtains certain regulatory approvals to market a generic equivalent product in that country.

In addition to the license fees, Abbott will pay the Company a royalty on total annual net sales of Hextend. The royalty rate will be 5% plus an additional .22% for each \$1,000,000 of annual net sales, up to a maximum 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 has agreed that the Company may convert Abbott's exclusive license to a non-exclusive license or may terminate the license outright if certain minimum sales and royalty payments are not met. In order to terminate the license outright, the Company would pay a termination fee in an amount ranging from the milestone payments made by Abbott to an amount equal to three times prior year net sales, depending upon when termination occurs. Abbott's exclusive license also may terminate, without the payment of termination fees by the Company, if Abbott fails to market Hextend. Abbott has agreed to manufacture Hextend for sale by the Company in the event that Abbott's exclusive license is terminated in either case.

Abbott has a right to acquire additional licenses to manufacture and sell the Company's other plasma expander products in the United States and Canada. If Abbott exercises its right to acquire a license to sell such products for uses other than Hypothermic Surgery or Total Body Washout, in addition to paying royalties, Abbott will be obligated to pay a license fee based upon the Company's direct and indirect research, development and other costs allocable to the new product. If Abbott desires to acquire a license to sell any of the Company's products for use in Hypothermic Surgery or Total Body Washout, the license fees and other terms of the license will be subject to negotiation between the parties. For the purpose of determining the applicable royalty rates, net sales of any such new products licensed by Abbott will be aggregated with sales of Hextend. If Abbott does not exercise its right to acquire a new product license, the Company may manufacture and sell the product itself or may license others to do so.

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

The foregoing description of the License Agreement is a summary only and is qualified in all respects by reference to the full text of the License Agreement.

The Company is also discussing and negotiating prospective licensing arrangements with other pharmaceutical companies, some of which have the capacity to produce the Company's products, as well as market them, for various over-seas markets. In licensing arrangements that include marketing rights, the participating pharmaceutical company would be entitled to retain a large portion of the revenues from sales to end users and would pay the Company a royalty on net

sales. There is no assurance that any such additional arrangements can be made.

## Manufacturing

### Facilities Required

The Company has sufficient equipment, space and personnel needed to synthesize the quantities of its products used in its research activity, but the Company does not have facilities to manufacture the solution in commercial quantities, or under "good manufacturing practice" required by the FDA. Any products that are used in clinical trials for FDA approval, or that are approved by the FDA for marketing, will have to be manufactured according to "good manufacturing practices" at a facility that has passed FDA inspection. In addition, any products that are approved by the FDA will have to be manufactured in commercial quantities, and with sufficient stability to withstand the distribution process, and in compliance with such federal and state regulatory requirements as may be applicable. The active ingredients and component parts of the products must be either USP or themselves manufactured according to "good manufacturing practices".

Abbott has provided Hextend manufactured under good manufacturing practices for use in the Company's clinical trials, and Abbott has the facilities to manufacture Hextend and other Company products in commercial quantities. If Abbott chooses not to obtain a license to manufacture and market another BioTime product, or to manufacture it under contract for BioTime, the Company will need to enter into licensing or product manufacturing arrangements with another established pharmaceutical company, or else the Company will have to acquire its own manufacturing facility.

Acquiring a manufacturing facility would involve significant expenditure of time and money for design and construction of the facility, purchasing equipment, hiring and training a production staff, purchasing raw material and attaining an efficient level of production. Although the Company has not determined the cost of constructing production facilities that meet FDA requirements, it expects that the cost would be substantial, and that the Company would need to raise additional capital in the future for that purpose. There can be no assurance that the Company will be able to obtain the capital required for the acquisition of production facilities. To avoid the incurrence of those expenses and delays, the Company is seeking contract and licensing arrangements with established pharmaceutical companies for the production of the Company's products, but there can be no assurance that satisfactory arrangements will be made.

### Raw Materials

Although most ingredients in the products being developed by the Company are readily obtainable from multiple sources, the Company knows of only a few manufacturers of the hydroxyethyl starches that serve as the active ingredient in Hextend, PentaLyte and HetaCool. Abbott presently has a source of supply of the hydroxyethyl starch used in Hextend, PentaLyte and

HetaCool, and has agreed to maintain a supply sufficient to meet market demand for Hextend in the United States and Canada. McGaw, Inc., a wholly owned subsidiary of B. Braun Melsungen AG, a private German company selling intravenous solutions and other medical products around the world, has produced Hextend for BioTime's clinical trials and can produce the pentastarch used in Pentalyte. In order to manufacture its products for overseas markets, or products not presently licensed to Abbott for the United States and Canadian markets, the Company or a licensee would have to secure a supply or production agreement with one or more of the known hydroxyethyl starch manufacturers, but if such an agreement could not be obtained, the Company or a licensee would have to acquire a manufacturing facility and the technology to produce the hydroxyethyl starch according to good manufacturing practices. The possibility of producing hydroxyethyl starches through a co-operative effort with a small, independent starch manufacturer has also been considered. The Company might have to raise additional capital to participate in the development and acquisition of the necessary production technology and facilities.

If arrangements cannot be made for a source of supply of hydroxyethyl starch, the Company would have to reformulate its solutions to use one or more other starches that are more readily available. In order to reformulate its products, the Company would have to perform new laboratory testing to determine whether the alternative starches could be used in a safe and effective synthetic plasma volume expander, low temperature blood substitute or organ preservation solution. If needed, such testing would be costly to conduct and would delay the Company's product development program, and there is no certainty that any such testing would demonstrate that an alternative ingredient, even if chemically similar to the one currently used, would be as safe or effective.

#### Marketing

The Company's proposed products and services are intended for sale to hospitals, medical centers, and physicians engaged in the practice of specific areas of medicine, including transplantation, neurosurgery, cardiovascular surgery, anesthesiology, oncology, emergency room and trauma care and critical care. The Company intends to license its products to pharmaceutical companies that have their own, well established marketing and sales organizations. A license to market Hextend in the United States and Canada has been granted to Abbott, and the Company is discussing product licensing arrangements with a number of companies for over-seas markets. Although such arrangements could permit the Company to receive revenues from the sale of its products expeditiously and with lower costs, the Company would have to share those revenues with the participating pharmaceutical companies. There can be no assurance that any additional pharmaceutical companies will be willing to enter into marketing arrangements on terms acceptable to the Company. If the Company does not enter into licensing or other arrangements for the sale of a product in a particular market, the Company would have to establish its own marketing organization.

Published studies and presentations by physicians who have participated in clinical trials or laboratory studies of Company products may be used as part of the Company's product marketing

efforts. The Company also will continue to seek opportunities to conduct research in collaboration with well-known institutions and to demonstrate its work at scientific conventions.

#### Government Regulation

The FDA will regulate the Company's proposed products as drugs, biologicals, or medical devices, depending upon such factors as the use to which the product will be put, the chemical composition and the interaction of the product on the human body. Products that are intended to be introduced into the body, such as blood substitute solutions for low temperature surgery and plasma expanders, will be regulated as drugs and will be reviewed by the FDA staff responsible for evaluating biologicals.

The Company's human drug products will be subject to rigorous FDA review and approval procedures. After testing in animals, an Investigational New Drug (IND) application must be filed with the FDA to obtain authorization for human testing. Extensive clinical testing, which is generally done in three phases, must then be undertaken at a hospital or medical center to demonstrate optimal use, safety and efficacy of each product in humans. Each clinical study is conducted under the auspices of an independent Institutional Review Board ("IRB"). The IRB will consider, among other things, ethical factors, the safety of human subjects and the possible liability of the institution. The time and expense required to perform this clinical testing can far exceed the time and expense of the research and development initially required to create the product. No action can be taken to market any therapeutic product in the United States until an appropriate New Drug Application ("NDA") has been approved by the FDA. Even after initial FDA approval has been obtained, further studies may be required to provide additional data on safety or to gain approval for the use of a product as a treatment for clinical indications other than those initially targeted. In addition, use of these products during testing and after marketing could reveal side effects that could delay, impede or prevent FDA marketing approval, resulting in a FDA-ordered product recall, or in FDA-imposed limitations on permissible uses.

The FDA also regulates the manufacturing process of pharmaceutical products and requires that a portion of the clinical trials for new products be conducted using products produced in compliance with "good manufacturing practices." See "Manufacturing."

Sales of pharmaceutical products outside the United States are subject to foreign regulatory requirements that vary widely from country to country. Even if FDA approval has been obtained, approval of a product by comparable regulatory authorities of foreign countries must be obtained prior to the commencement of marketing the product in those countries. The time required to obtain such approval may be longer or shorter than that required for FDA approval.



## Patents and Trade Secrets

On April 18, 1995, the Company was granted a United States Patent which protects methods for using BioTime's proprietary solutions, including the use of Hextend and PentaLyte to replace blood. Claims include the use of the solutions at normal and hypothermic (below normal) body temperatures as plasma expanders, and for increasing circulation of a hypovolemic (acute blood loss) patient. Additional patents were granted in 1996 and 1997 for other related company products. During February 1997, the United States Patent and Trademark Office informed the Company of the allowance of additional claims regarding the composition of Hextend and PentaLyte; one patent covering those claims was granted on December 30, 1997, and the Company expects that additional patents covering those claims may be issued. Additional patent applications have been filed in the United States and certain other countries for Hextend and other solutions. The Company also holds a United States Patent on its microcannula.

There is no assurance that any additional patents will be issued, or that any patents now held or later obtained by the Company will not be successfully challenged by third parties and declared invalid or infringing of third party claims. Further, the enforcement of patent rights often requires the prosecution of litigation against third party infringers, and such litigation can be costly to pursue.

While the Company believes that the protection of patents and licenses is important to its business, the Company also will rely on trade secrets, know-how and continuing technological advancement to maintain its competitive position. The Company has entered into intellectual property, invention and non-disclosure agreements with its employees and it is the Company's practice to enter into confidentiality agreements with its consultants. There can be no assurance, however, that these measures will prevent the unauthorized disclosure or use of the Company's trade secrets and know-how or that others may not independently develop similar trade secrets and know-how or obtain access to the Company's trade secrets, know-how or proprietary technology. If, in the future, the techniques for use of the Company's products become widely known through academic instruction or publication, patent protection would become more important as a means of protecting the Company's market share for its products.

## Competition

If successfully developed, the Company's solutions will compete with products currently used to treat or prevent hypovolemia, including albumin, other colloid solutions, and crystalloid solutions presently manufactured by established pharmaceutical companies, and with human blood products. 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, the Company's products will have to provide medically significant advantages. The competing products are being manufactured and marketed by established pharmaceutical companies that have substantially larger research facilities and technical staffs and greater financial and marketing 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.

To compete with new and existing plasma expanders, the Company is developing products that contain constituents that may prevent or reduce the physiological imbalances, bleeding, fluid overload, edema, poor oxygenation, and organ failure that can occur when competing products are used. To compete with existing organ preservation solutions, the Company is seeking to develop a solution that can be used to preserve all organs simultaneously and for long periods of time.

A number of other companies are known to be developing hemoglobin and synthetic red blood cell substitutes and technologies. BioTime's products have been developed for use before red blood cells are needed. In contrast, hemoglobin and other red blood cell substitute products are designed to remedy ischemia and similar conditions that may result from the loss of oxygen carrying red blood cells. Those products would not necessarily compete with the Company's products unless the oxygenating molecules were included in solutions that could replace fluid volume and prevent or reduce the physiological imbalances as effectively as the Company's products. Generally, red blood cell substitutes are more expensive to produce and potentially more toxic than Hextend and Pentalyte.

As a result of Abbott's introduction of a generic plasma expander intended to compete with Hespan, competition in the plasma expander market has intensified and wholesale prices have declined. Competition in the areas of business targeted by the Company is likely to intensify further as new products and technologies reach the market. Superior new products are likely to sell for higher prices and generate higher profit margins once acceptance by the medical community is achieved. Those companies that are successful in introducing new products and technologies to the market first may gain significant economic advantages over their competitors in the establishment of a customer base and track record for the performance of their products and technologies. Such companies will also benefit from revenues from sales which could be used to strengthen their research and development, production, and marketing resources. All companies engaged in the medical products industry face the risk of obsolescence of their products and technologies as more advanced or cost effective products and technologies are developed by their competitors. As the industry matures, companies will compete based upon the performance and cost effectiveness of their products.

#### Employees

As of June 30, 1998, the Company employed eleven persons on a full-time basis and two persons on a part-time basis. Three full-time employees and one part-time employee hold Ph.D. or Masters Degrees in one or more fields of science.

## Risk Factors

Statements contained in this report 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. Some of the factors that could affect the Company's operations are:

### Development Stage Company

The Company is in the development stage, and, to date, has been principally engaged in research and development activities. The Company has not generated a significant amount of operating revenue. As a result of the developmental nature of its business, the Company can be expected to sustain additional operating losses. There can be no assurance that the Company will generate sufficient revenues from the sale or licensing of its products and technologies to be profitable.

### Uncertainty as to Human Application of Products

Although the Company believes that its Phase III clinical trials show that Hextend is safe for use in clinical medicine, there is no assurance that the FDA will reach the same conclusion. The Company'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.

### Uncertainty of Future Sales; Competition

The Company's ability to generate substantial operating revenue depends upon its success in developing and marketing its products. There can be no assurance that any products that receive FDA or foreign regulatory approval will be successfully marketed or that the Company will receive sufficient revenues from product sales to meet its 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.

The Company's plasma expander products will compete with products currently used to treat or prevent hypovolemia, 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, the Company's products will have to provide medically significant advantages. The competing products are being manufactured and marketed by established pharmaceutical companies with more resources than the Company. 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 the Company's products and technologies obsolete or noncompetitive.

#### FDA and Other Regulatory Approvals Required

Preclinical and clinical trials and manufacturing and marketing of BioTime's medical products will be subject to the rigorous testing and approval processes of the FDA and corresponding foreign regulatory authorities. The regulatory process, which includes preclinical, clinical and post-clinical testing of each product to establish its safety and efficacy, can take several years to complete and require the expenditure of substantial time and funds. Data obtained from preclinical and clinical activities are susceptible to varying interpretations which could delay, limit or prevent FDA regulatory approval. In addition, delays or rejections may be encountered as a result of changes in FDA policy during the period of product development and FDA regulatory review of each submitted new product application. 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. Moreover, 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. After regulatory approval is obtained, the approved product, the manufacturer and the manufacturing facilities are subject to continual review and periodic inspections, and a later discovery of previously unknown problems with a product, manufacturer or facility may result in restrictions on such product or manufacturer, including withdrawal of the product from the market. 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.

#### Additional Financing May Be Required

Additional financing may be required for continued research and product development, additional clinical trials of new products, and production and marketing of Hextend and any other Company products that may be approved by FDA or foreign regulatory authorities. The time frame in which the Company may generate internally the funds necessary to carry on its planned operations depends upon its success in developing products and obtaining FDA and other regulatory approvals. It often takes many months for the FDA to complete its review of an NDA after clinical trials are complete and it can take several months for a pharmaceutical company to introduce a new drug to the market. Therefore, the Company may need to raise capital from time to time to meet its operating expenses until such time as it is able to generate sufficient revenues from product sales or royalties. There can be no assurance that the Company will be able to raise additional funds on favorable terms or at all, or that such funds, if raised, will be sufficient to permit the Company to develop and market its products. Unless the Company is able to raise additional funds when needed, it is likely that it will be unable to continue its planned activities, notwithstanding the progress of its research and development projects.

#### Uncertainty as to Results of Research and Development of New Products

The Company's business involves the attempt to develop new medical products and technologies. Such experimentation is inherently costly, time consuming and uncertain as to its results. If the Company is 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 June 30, 1998, the Company spent \$9,958,128 on research and development, and the Company expects 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 in commercial quantities or in compliance with FDA standards. Accordingly, the Company plans to enter into arrangements with pharmaceutical companies for the production and marketing of the Company's products. Abbott has obtained an exclusive license from the Company to manufacture and market Hextend in the United States and Canada. Although a number of pharmaceutical companies have expressed their interest in obtaining licenses to manufacture and market Company products in other countries, there can be no assurance that the Company will be successful making other licensing arrangements. If licensing or manufacturing arrangements cannot be made on acceptable terms, the Company would be required to construct or acquire its own manufacturing facilities and to establish its own marketing organization, which would entail significant expenditures of time and money.

#### Uncertainty of Patent Protection

The Company has obtained patents in the United States, Israel, and South Africa, and has filed patent applications in certain foreign countries, for certain products, including Hextend and PentaLyte. No assurance can be given that any foreign patents will be issued to the Company, or that, if issued, those patents and the Company's United States 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 the Company might not have the resources available to defend its patent rights.

#### Uncertainty of Health Care Reimbursement and Reform

The Company's ability to successfully commercialize its products may depend in part on the extent to which reimbursement for the cost of such products and related treatment will be available from government health administration authorities, private health coverage insurers and other organizations. Significant uncertainty exists as to the pricing, availability of distribution channels and reimbursement status of newly approved health care products and there can be no assurance that

adequate third party coverage will be available to enable the Company to maintain price levels sufficient for realization of an appropriate return on its investment in product development. In certain foreign markets, 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.

#### Potential Disputes Over Ownership of Technology

Because certain officers and directors of the Company were employees of Cryomedical Sciences, Inc. ("CMSI") prior to founding the Company, it is possible that CMSI might claim an ownership interest in products and technologies developed by the Company based upon the scope of research conducted by such persons while they were employed by CMSI, or based upon the terms of certain agreements between such scientists and CMSI with respect to the ownership of technology and products. To date, no such claims have been asserted against the Company by CMSI. CMSI holds patents with respect to certain low temperature blood substitute solutions. No assurance can be given that CMSI will not claim that the Company's products infringe upon CMSI's patents. The Company has obtained a non-exclusive license to use certain experimental low temperature blood substitute solutions developed by CMSI. The license is not assignable or transferable and is subject to termination under certain circumstances, including a sale of control of the Company. However, the Company abandoned use of the CMSI solutions many years ago and does not intend to pursue the commercialization of the CMSI solutions.

#### 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 its executive officers could have a material adverse effect on the Company. In addition, the success of the Company will depend, among other factors, upon successful recruitment and retention of additional highly skilled and experienced management and technical personnel.

#### No Dividends

The Company has not paid any cash dividends on its Common Shares. For the foreseeable future it is anticipated that earnings, if any, which may be generated from the Company's proposed operations 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 report, there is no assurance that future losses from operations will not 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 in 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 rule that imposes 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.

#### Item 2. Facilities.

The Company presently occupies an approximately 5,200 square foot office and laboratory facility in Berkeley, California under a lease that will expire on May 31, 1999. The current rent is \$5,300 per month, plus the cost of utilities. This facility serves as the Company's principal executive office and laboratory for small animal experiments.

The Company uses, on a fee per use basis, facilities for surgical research on animals at an unaffiliated privately run research center located in Winters, California. Contracting for the use of research facilities has enabled the Company to initiate its research projects without the substantial capital cost, overhead costs and delay associated with the acquisition and maintenance of a modern animal surgical research facility.

Item 3. Legal Proceedings.

The Company is not presently involved in any material litigation or proceedings, and to the Company's knowledge no such litigation or proceedings are contemplated.

Item 4. Submission of Matters to a Vote of Security Holders.

The 1997 Annual Meeting of Shareholders of BioTime, Inc. was held May 18, 1998. The Board of Directors of the Company presently consists of eight members, who are elected to hold office for a one year term until the 1998 Annual Meeting of Shareholders. The following table shows the directors who were elected and the number of votes each director received.

Director -----	Votes For -----	Votes Withheld -----
Ronald S. Barkin	9,127,207	106,669
Victoria Bellport	9,199,007	104,869
Milton H. Dresner	9,198,857	105,019
Jeffrey B. Nickel	9,199,007	104,869
Judith Segall	9,198,641	105,235
Paul Segall	9,199,007	104,869
Hal Sternberg	9,198,807	105,069
Harold Waitz	9,198,857	105,019

The second proposal brought before the shareholders was the vote to amend the Company's Articles of Incorporation to increase the number of authorized Common Shares from 25,000,000 to 40,000,000. The results of the voting were as follows:

For -----	Against -----	Abstained -----
9,219,295	63,115	21,166

The third proposal brought before the shareholders was the vote to ratify the appointment of



Deloitte & Touche LLP as the independent accountants of the Company for the fiscal year ending June 30, 1998. The results of the voting were as follows:

For -----	Against -----	Abstained -----
9,277,862	12,364	13,650

Item 5. Market for Registrant's Common Equity and Related Stockholder Matters.

The Company's Common Shares are traded in the over-the-counter market on the Nasdaq under the symbol BTIM. The Common Shares have been trading on the Nasdaq National Market since April 28, 1998, and traded on the Nasdaq SmallCap Market from March 5, 1992 through April 27, 1998. The closing price of the Company's Common Shares on Nasdaq on September 22, 1998 was \$9.06.

The following table sets forth the range of high and low bid prices for the Common Shares for the fiscal years ended June 30, 1997 and 1998, based on transaction data as reported on the Nasdaq SmallCap Market. All prices have been adjusted to give effect to the Company's payment of a stock dividend during October 1997 to effect a three-for-one stock split.

Quarter Ended -----	High -----	Low -----
September 30, 1996	\$7.67	\$4.67
December 31, 1996	9.33	4.83
March 31, 1997	13.42	8.08
June 30, 1997	12.33	7.58
September 30, 1997	17.08	8.67
December 31, 1997	27	18.50
March 31, 1998	19.75	11
June 30, 1998	14.37	5.81

As of September 3, 1998, there were 320 shareholders of record of the Common Shares based upon information from the Registrar and Transfer Agent.

The Company has paid no dividends on its Common Shares since its inception and does not plan to pay dividends on its Common Shares in the foreseeable future.

Item 6. Selected Financial Data.

The selected financial data as of June 30, 1998, 1997, 1996, 1995 and 1994 and the period from inception (November 30, 1990) to June 30, 1998 presented below have been derived from the financial statements of the Company which have been audited by Deloitte & Touche LLP, independent auditors, as stated in their report appearing elsewhere herein (which expresses an unqualified opinion and includes an explanatory paragraph related to the development stage of the Company's operations). The selected financial data should be read in conjunction with the Company's financial statements and notes thereto and "Management's Discussion and Analysis of Financial Condition and Results of Operations" included elsewhere.

Statement of Operations Data:

	June 30,					Period from Inception November 30, 1990 (to June 30, 1998)
	1998	1997	1996	1995	1994	
REVENUE:						
Licensing Fee	\$ 1,150,000	\$ 62,500	\$ --	\$ --	\$ --	\$ 1,212,500
EXPENSES:						
Research and development	\$ (3,048,775)	\$ (2,136,325)	\$ (1,145,168)	\$ (1,791,698)	\$ (777,668)	\$ (9,958,128)
General and administrative	(1,849,312)	(1,209,546)	(954,049)	(808,432)	(931,439)	(7,079,633)
Total expenses	(4,898,087)	(3,345,871)	(2,096,217)	(2,600,130)	(1,709,107)	(17,037,761)
INTEREST AND OTHER INCOME:						
Interest	276,832	183,781	127,212	218,416	152,438	1,139,311
Other	17,909	5,380	3,670	3,967	9,716	73,923
Total Interest and Other Income	294,741	189,161	130,882	222,383	162,154	1,213,234
Net loss	\$ (3,453,346)	\$ (3,094,210)	\$ (1,965,335)	\$ (2,337,747)	\$ (1,546,953)	\$ (14,612,027)
Basic and Diluted Net loss per share	\$ (.35)	\$ (.35)	\$ (.25)	\$ (.30)	\$ (.25)	
Common and equivalent shares used in computing per share amounts	9,833,156	8,877,024	7,827,732	7,900,392	6,139,335	

Balance Sheet Data:

	June 30	
	1998	1997
Cash, cash equivalents and short term investments	\$4,105,781	\$7,811,634
Working Capital	3,724,663	6,846,575
Total assets	4,641,780	8,297,774
Shareholders' equity	4,014,750	6,536,106

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Overview

Since its inception in November 1990, the Company has been engaged primarily in research and development activities. The Company has not yet generated significant operating revenues, and as of June 30, 1998 the Company had incurred a cumulative net loss of \$14,612,027. The Company's ability to generate substantial operating revenue depends upon its success in developing and marketing or licensing its plasma volume expanders and organ preservation solutions and technology for medical use.

Most of the Company's research and development efforts have been devoted to the development of the Company's first three blood volume replacement products: Hextend, PentaLyte, and HetaCool. By testing and bringing all three products to the market, BioTime can increase its market share by providing the medical community with solutions to match patients' needs.

On March 31, 1998, the Company completed the submission of its New Drug Application (NDA) to the FDA, seeking approval to market Hextend in the United States. The NDA includes data from the Company's Phase III clinical trials, in which the primary endpoints were successfully met. The Company believes 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.

BioTime has 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. BioTime has retained all rights to manufacture, sell or license Hextend and other products in all other countries. Abbott also has a right to obtain licenses to manufacture and sell other BioTime products.

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

The Company intends to enter global markets through licensing agreements with overseas pharmaceutical companies. By licensing its products abroad, the Company will avoid the capital costs and delays inherent in acquiring or establishing its own pharmaceutical manufacturing facilities and establishing an international marketing organization. A number of pharmaceutical companies

in Europe, Asia and other markets around the world have expressed their interest in obtaining licenses to manufacture and market the Company's products. The Company is continuing to meet with representatives of interested companies to discuss potential agreements.

The Company is also pursuing a global clinical trial strategy, the goal of which is to permit the Company 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, the Company may be able to file applications for foreign regulatory approval of its products based upon the results of the United States clinical trials. Based upon discussions with the Canadian Bureau of Pharmaceutical Assessment, the Company plans to file for Canadian market approval based the results of its United States clinical trials. Regulatory approvals for countries that are members of the European Union may be obtained through a mutual recognition procedure. The Company plans to determine whether one more member nations would 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 the Company would be permitted to market Hextend in all 16 member nations.

In order to commence clinical trials for regulatory approval of new products, such as Pentalyte and HetaCool, or new therapeutic uses of Hextend, it will be necessary for the Company to prepare and file with the FDA an Investigational New Drug Application ("IND") or an amendment to expand the present IND for additional Hextend studies. Filings with foreign regulatory agencies will be required to commence clinical trials over-seas. The cost of preparing those regulatory filings and conducting those clinical trials is not presently determinable, but could be substantial. It will be necessary for the Company to obtain additional funds in order to complete any clinical trials that may begin for its new products or for new uses of Hextend. The Company plans to negotiate product licensing and marketing agreements that require overseas licensees and distributors of Company products to bear regulatory approval and clinical trial costs for their territories.

In addition to developing clinical trial programs, the Company plans to continue to provide funding for its 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 the Company's financial status. Because the Company's research and development expenses, clinical trial expenses, and production and marketing expenses will be charged against earnings for financial reporting purposes, management expects that losses from operations will continue to be incurred for the foreseeable future.

#### Year 2000 Considerations

The Company has reviewed its internal computer and software systems and has determined that it is highly unlikely that any of those systems will be adversely affected by problems associated with the year 2000. Accordingly, the Company does not expect to incur any material expense in bringing its computer systems into year 2000 compliance. The so-called "year 2000 problems" may arise if computer programs do not properly recognize years that begins with "20" instead of "19."

If not corrected, computer applications that are affected by they year 2000 problem could fail or create erroneous results.

The Company relies upon data analysis provided by independent third parties that conduct tests on Company products and compile and analyze data from Company laboratory studies and clinical trials. The Company is asking its third party contractors to inform the Company's management whether their systems will be adversely affected by the year 2000 problem and what plans they have to remedy any such problems in a timely manner.

Because the Company does not have its own pharmaceutical production facilities, it will rely upon Abbott and others to manufacture and distribute Company products. If year 2000 problems were to impede the ability of those companies to manufacture and distribute Company products or raw materials used in the manufacture of Company products, future sales of Company products could be adversely affected. 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.

#### Results of Operations

Years Ended June 30, 1998 and June 30, 1997

From inception (November 30, 1990) through June 30, 1998, the Company generated \$2,425,734 of revenue, comprised of \$1,212,500 in license fee income, and \$1,213,234 in interest and other income. During the fiscal year ended June 30, 1997, the Company received \$1,400,000 for signing the License Agreement and achieving a license fee milestone pertaining to the allowance of certain patent claims pending. During the fiscal year ended June 30, 1998, the Company received an additional milestone fee of \$250,000 for filing its NDA for Hextend. The Company recognized \$62,500 of such revenue during the fiscal year ended June 30, 1997 and recognized \$1,150,000 of such revenue during the fiscal year ended June 30, 1998. The remaining \$437,500 of revenue will be recognized during the fiscal year ending June 30, 1999. (See Note 3 to the accompanying financial statements). Interest and other income increased to \$294,741 for the year ended June 30, 1998 from \$189,161 for the year ended June 30, 1997. The increase in interest and other income is attributable to the increase in cash and cash equivalents from the subscription rights offering.

From inception (November 30, 1990) through June 30, 1998, the Company incurred \$9,958,128 of research and development expenses, including salaries, supplies and other expense items. Research and development expenses increased to \$3,048,775 for the year ended June 30, 1998, from \$2,136,325 for the year ended June 30, 1997. The increase in research and development expenses is attributable to the cost of preparing and filing an NDA for Hextend, and preparing for future regulatory filings in Europe and Canada. It is expected that research and development expenses will increase as the Company continues clinical testing of Hextend and commences clinical studies of other products.

From inception (November 30, 1990) through June 30, 1998, the Company incurred \$7,079,633 of general and administrative expenses. General and administrative expenses increased

to \$1,849,312 for the year ended June 30, 1998, from \$1,209,546 for the year ended June 30, 1997. This increase is attributable to an increase in the general operations of the Company, an increase in personnel, and bonus awards.

Years Ended June 30, 1997 and June 30, 1996

For the year ended June 30, 1997, the Company generated \$62,500 from the signing of the License Agreement with Abbott. The Company deferred recognition of \$1,337,500 of revenue received for signing the License Agreement and achieving a license fee milestone pertaining to the allowance of certain patent claims pending (See Note 3 to the accompanying financial statements). Interest and other income increased to \$189,161 for the year ended June 30, 1997 from \$130,822 for the year ended June 30, 1996. The increase in interest and other income is attributable to the increase in cash and cash equivalents from the subscription rights offering, completed February 5, 1997.

Research and development expenses increased to \$2,136,325 for the year ended June 30, 1997, from \$1,142,168 for the year ended June 30, 1996. The increase in research and development expenses was attributable to the Company's Phase III human clinical trials of Hextend, initiation of a clinical trial at Middlesex Hospital in London, England, and an accrual for bonuses granted after June 30, 1997.

General and administrative expenses increased to \$1,209,546 for the year ended June 30, 1997, from \$954,049 for the year ended June 30, 1996. This increase was attributable to an amortization expense associated with agreements the Company entered into with certain financial advisors and consultants in exchange for warrants to purchase the Company's stock, an increase in the general operations of the Company, an increase in personnel, and bonus awards.

#### Taxes

At June 30, 1998, the Company had a cumulative net operating loss carryforward of approximately \$13,800,000 for federal income tax purposes.

## Liquidity and Capital Resources

Since inception, the Company has primarily financed its operations through the sale of equity securities and licensing fees, and at June 30, 1998, the Company had cash and cash equivalents of \$4,100,000. Management believes that additional funds will be required for the successful completion of the Company's product development activities. The Company plans to obtain financing for its future operations through royalties and licensing fees from Abbott, from licensing fees from other pharmaceutical companies, and/or additional sales of equity or debt securities. Sales of additional equity securities could result in the dilution of the interests of present shareholders.

Under its License Agreement with Abbott, the Company has received \$1,650,000 of license fees and milestone payments for signing the agreement and achieving milestones pertaining to the allowance of certain patent claims pending and the submission of the NDA for Hextend. Up to an additional \$850,000 of license payments under the License Agreement will become payable in installments upon the achievement of specific milestones pertaining to the approval of the NDA for Hextend and the commencement of sales of the product. Additional license fees and royalties will become payable based upon product sales.

License fees and royalties will also be sought from Abbott or other pharmaceutical companies for United States and Canadian licenses of new products and uses of Hextend that are not covered by Abbott's license, and for licenses to manufacture and market the Company's products abroad.

The future availability and terms of equity and debt financings, and the amount of license fees and royalties that may be earned through the licensing and sale of the Company's products is uncertain. The unavailability or inadequacy of financing or revenues to meet future capital needs could force the Company to modify, curtail, delay or suspend some or all aspects of its planned operations.

Statements contained in this report 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 Note 1 to Financial Statements and the "Risk Factors" discussed elsewhere in this Report.

### Item 7A. Quantitative and Qualitative Disclosures About Market Risk.

The Company did not hold any market risk sensitive instruments as of June 30, 1998 and June 30, 1997.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

INDEX TO FINANCIAL STATEMENTS

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INDEPENDENT AUDITORS' REPORT

To the Board of Directors and Shareholders  
BioTime, Inc.:

We have audited the accompanying balance sheets of BioTime, Inc. (a development stage company) as of June 30, 1998 and 1997, and the related statements of operations, shareholders' equity and cash flows for the period from November 30, 1990 (inception) to June 30, 1998, and for each of the three years in the period ended June 30, 1998. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, such financial statements present fairly, in all material respects, the financial position of BioTime, Inc. as of June 30, 1998 and 1997, and the results of its operations and its cash flows for the period from November 30, 1990 (inception) to June 30, 1998, and for each of the three years in the period ended June 30, 1998 in conformity with generally accepted accounting principles.

The Company is in the development stage as of June 30, 1998. As discussed in Note 1 to the financial statements, successful completion of the Company's product development program and ultimately the attainment of profitable operations is dependent upon future events, including maintaining adequate financing to fulfill its development activities, obtaining regulatory approval for products ultimately developed, and achieving a level of sales adequate to support the Company's cost structure.

DELOITTE & TOUCHE LLP  
San Francisco, California  
August 18, 1998

BIOTIME, INC.  
(A Development Stage Company)

BALANCE SHEETS

ASSETS

June 30,

	1998	1997
	----	----
CURRENT ASSETS		
Cash and cash equivalents	\$ 4,105,781	\$ 7,811,634
Research and development supplies on hand	--	100,000
Prepaid expenses and other current assets	245,912	259,109
	-----	-----
Total current assets	4,351,693	8,170,743
EQUIPMENT, Net of accumulated depreciation of \$188,526 and \$139,241	190,665	92,609
DEPOSITS AND OTHER ASSETS	99,422	34,422
	-----	-----
TOTAL ASSETS	\$ 4,641,780	\$ 8,297,774
	=====	=====

LIABILITIES AND SHAREHOLDERS' EQUITY

CURRENT LIABILITIES		
Accounts payable	\$ 189,530	\$ 249,168
Accrued compensation	--	175,000
Deferred revenue - current portion	437,500	900,000
	-----	-----
Total current liabilities	627,030	1,324,168
DEFERRED REVENUE	--	437,500
	-----	-----
Total liabilities	627,030	1,761,668
	-----	-----
COMMITMENTS (Note 5)		
SHAREHOLDERS' EQUITY:		
Preferred Shares, no par value, undesignated as to Series, authorized 1,000,000 shares; none outstanding (Note 4)		
Common Shares, no par value, authorized 40,000,000 shares; issued and outstanding 9,947,579 and 9,609,579 shares (Note 4 )	18,557,636	17,625,646
Contributed Capital	93,972	93,972
Deficit accumulated during development stage	(14,636,858)	(11,183,512)
	-----	-----
Total shareholders' equity	4,014,750	6,536,106
	-----	-----
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY	\$ 4,641,780	\$ 8,297,774
	=====	=====

See notes to financial statements.

BIOTIME, INC.  
(A Development Stage Company)

STATEMENTS OF OPERATIONS

	Year Ended June 30,			Period from Inception (November 30, 1990) to June 30, 1998
	1998	1997	1996	
REVENUE:				
License fee	\$ 1,150,000	\$ 62,500	\$ --	\$ 1,212,500
EXPENSES:				
Research and development	(3,048,775)	\$ (2,136,325)	\$ (1,142,168)	(9,958,128)
General and administrative	(1,849,312)	(1,209,546)	(954,049)	(7,079,633)
Total expenses	(4,898,087)	(3,345,871)	(2,096,217)	(17,037,761)
INTEREST AND OTHER INCOME:				
Interest	276,832	183,781	127,212	1,139,311
Other	17,909	5,380	3,670	73,923
Total interest and other income	294,741	189,161	130,882	1,213,234
NET LOSS	\$ (3,453,346)	\$ (3,094,210)	\$ (1,965,335)	\$ (14,612,027)
BASIC AND DILUTED LOSS PER SHARE	\$ (0.35)	\$ (0.35)	\$ (0.25)	
COMMON AND EQUIVALENT SHARES USED IN COMPUTING PER SHARE AMOUNTS:				
BASIC AND DILUTED	9,833,156	8,877,024	7,827,732	

See notes to financial statements.

BIOTIME, INC.  
(A Development Stage Company)

STATEMENTS OF SHAREHOLDERS' EQUITY

	Series A Convertible Preferred Shares		Common Shares		Contributed Capital	Deficit Accumulated During Development Stage
	Number of Shares	Amount	Number of Shares	Amount		
BALANCE, November 30, 1990 (date of inception)	--	--	--	--	--	--
NOVEMBER 1990						
Common shares issued for cash			1,312,761	\$ 263		
DECEMBER 1990:						
Common shares issued for stock of a separate entity at fair value			1,050,210	137,400		
Contributed equipment at appraised value					\$ 16,425	
Contributed cash					77,547	
MAY 1991:						
Common shares issued for cash less offering costs			101,175	54,463		
Common shares issued for stock of a separate entity at fair value			100,020	60,000		
JULY 1991:						
Common shares issued for services performed			30,000	18,000		
AUGUST-DECEMBER 1991						
Preferred shares issued for cash less offering costs of \$125,700	360,000	\$474,300				
MARCH 1992:						
Common shares issued for cash less offering costs of \$1,015,873			2,173,500	4,780,127		
Preferred shares converted into common shares	(360,000)	(474,300)	360,000	474,300		
Dividends declared and paid on preferred shares						(24,831)
MARCH 1994:						
Common shares issued for cash less offering costs of \$865,826			2,805,600	3,927,074		
JANUARY - JUNE 1995:						
Common shares repurchased with cash			(253,800)	(190,029)		
NET LOSS SINCE INCEPTION						(6,099,136)
BALANCE AT JUNE 30, 1995	--	\$ --	7,933,266	\$9,451,627	\$ 93,972	\$ (3,746,220)

See notes to condensed financial statements.

(Continued)

BIOTIME, INC.  
(A Development Stage Company)

STATEMENTS OF SHAREHOLDERS' EQUITY

	Series A Convertible Preferred Shares		Common Shares		Contributed Capital	Deficit Accumulated During Development Stage
	Number of Shares	Amount	Number of Shares	Amount		
Common shares issued for cash (exercise of options and warrants)			496,521	1,162,370		
Common shares issued for cash (lapse of recision)			112,176	67,300		
Common shares repurchased with cash			(18,600)	(12,693)		
Common shares warrants and options granted for services			--	356,000		
NET LOSS						(1,965,335)
BALANCE AT JUNE 30, 1996	--	\$ --	8,269,563	\$10,834,575	\$ 93,972	\$ (8,089,302)
Common shares issued for cash less offering costs of \$170,597			849,327	5,491,583		
Common shares issued for cash (exercise of options and warrants)			490,689	1,194,488		
Common shares warrants and options granted for service			--	105,000		
NET LOSS						(3,094,210)
BALANCE AT JUNE 30, 1997	--	\$ --	9,609,579	\$17,625,646	\$ 93,972	\$ (11,183,512)
Common Shares issued for cash (exercise of options)			337,500	887,130		
Common shares warrants and options granted for service				38,050		
Common shares issued for services			500	6,250		
NET LOSS						(3,453,346)
BALANCE AT JUNE 30, 1998	--	\$ --	9,935,579	\$18,534,076	\$ 93,972	\$ (14,636,858)

See Notes to financial statements.

(Concluded)

BIOTIME, INC.  
(A Development Stage Company)

STATEMENTS OF CASH FLOWS

	Year Ended June 30,			Period from Inception (November 30, 1990) to June 30, 1998
	1998	1997	1996	
<b>OPERATING ACTIVITIES:</b>				
Net loss	\$ (3,453,346)	\$ (3,094,210)	\$ (1,965,335)	\$ (14,612,027)
Adjustments to reconcile net loss to net cash used in operating activities:				
Deferred revenue	(500,000)	(62,500)		(562,500)
Depreciation	49,284	41,023	35,886	188,525
Cost of services - options and warrants	44,300	240,821	167,932	483,256
Supply reserves	100,000	100,000		200,000
Changes in operating assets and liabilities:				
Research and development supplies on hand	--		(200,000)	(200,000)
Prepaid expenses and other current assets	13,197	(180,837)	24,705	(193,665)
Deposits and other assets	(65,000)	(24,722)		(99,422)
Accounts payable	(59,638)	119,939	(182,198)	189,530
Accrued compensation	(175,000)	175,000		--
Deferred revenue	(400,000)	1,400,000		1,000,000
<b>Net cash used in operating activities</b>	<b>(4,446,203)</b>	<b>(1,285,486)</b>	<b>(2,119,010)</b>	<b>(13,606,303)</b>
<b>INVESTING ACTIVITIES:</b>				
Sale of investments				197,400
Purchase of short-term investments				(9,946,203)
Redemption of short-term investments				9,934,000
Purchase of equipment and furniture	(147,340)	(32,072)	(28,442)	(362,765)
<b>Net cash provided by (used in) investing activities</b>	<b>(147,340)</b>	<b>(32,072)</b>	<b>(28,442)</b>	<b>(177,568)</b>
<b>FINANCING ACTIVITIES:</b>				
Issuance of preferred shares for cash				600,000
Preferred shares placement costs				(125,700)
Issuance of common shares for cash		5,662,180		16,373,106
Common shares placement costs		(170,597)		(2,052,296)
Net proceeds from exercise of common share options warrants	887,690	1,194,488	1,162,370	3,244,548
Contributed capital - cash				77,547
Dividends paid on preferred shares				(24,831)
Repurchase of common shares			(12,693)	(202,722)
<b>Net cash provided by (used in) financing activities</b>	<b>887,690</b>	<b>6,686,071</b>	<b>1,149,677</b>	<b>17,889,652</b>
<b>INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS</b>	<b>(3,705,853)</b>	<b>5,368,513</b>	<b>(997,775)</b>	<b>4,105,781</b>
<b>CASH AND CASH EQUIVALENTS:</b>				
At beginning of period	7,811,634	2,443,121	3,440,896	--
At end of period	\$ 4,105,781	\$ 7,811,634	\$ 2,443,121	\$ 4,105,781

See notes to financial statements.

(Continued)

BIOTIME, INC.  
(A Development Stage Company)

STATEMENTS OF CASH FLOWS

	Year Ended June 30,			Period from Inception (November 30, 1990) to June 30, 1998
	1998	1997	1996	
NONCASH FINANCING AND INVESTING ACTIVITIES:				
Receipt of contributed equipment				\$ 16,425
Issuance of common shares in exchange for shares of common stock of Cryomedical Sciences, Inc. in a stock-for-stock transaction				\$ 197,400
Granting of options and warrants for services	\$ 38,050	\$ 105,000	\$ 356,000	\$ 517,050
Issuance of common shares in exchange for services	\$ 6,250			\$ 6,250

See notes to financial statements.

(Concluded)

BIOTIME, INC.  
(A Development Stage Company)

NOTES TO FINANCIAL STATEMENTS

1. GENERAL AND DEVELOPMENT STAGE ENTERPRISE

General - BioTime, Inc. (the Company) was organized November 30, 1990 as a California corporation. The Company is a biomedical organization, currently in the development stage, which is engaged in the research and development of synthetic plasma expanders, blood volume substitute solutions, and organ preservation solutions, for use in surgery, trauma care, organ transplant procedures, and other areas of medicine.

Certain Significant Risks and Uncertainties - The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Such management estimates include certain accruals. Actual results could differ from those estimates.

The Company's operations are subject to a number of factors that can affect its operating results and financial condition. Such factors include but are not limited to the following: the results of clinical trials of the Company's products; the Company's ability to obtain United States Food and Drug Administration and foreign regulatory approval to market its products; competition from products manufactured and sold or being developed by other companies; the price of and demand for any Company products that are ultimately sold; the Company's ability to obtain additional financing and the terms of any such financing that may be obtained; the Company's ability to negotiate favorable licensing or other manufacturing and marketing agreements for its products; the availability of ingredients used in the Company's products; and the availability of reimbursement for the cost of the Company's products (and related treatment) from government health administration authorities, private health coverage insurers and other organizations.

Development Stage Enterprise - Since inception, the Company has been engaged in research and development activities in connection with the development of synthetic plasma expanders, blood volume substitute solutions and organ preservation products. The Company has limited operating revenues and has incurred operating losses of \$14,612,027 from inception to June 30, 1998. The successful completion of the Company's product development program and, ultimately, achieving profitable operations is dependent upon future events including maintaining adequate capital to finance its future development activities, obtaining regulatory approvals for the products it develops and achieving a level of sales adequate to support the Company's cost structure.



## 2. SIGNIFICANT ACCOUNTING POLICIES

Equipment is stated at cost or, in the case of donated equipment, at fair market value. Equipment is being depreciated using the straight-line method over a period of thirty-six to eighty-four months.

Patent costs associated with obtaining patents on products being developed are expensed as research and development expenses when incurred. These costs totaled \$81,303 for the year ended June 30, 1998, \$95,362 for the year ended June 30, 1997, \$95,598 for the year ended June 30, 1996, and cumulatively, \$453,282 for the period from inception (November 30, 1990) to June 30, 1998.

Research and development supplies on hand are comprised of a quantity of the Company's PentaLyte solution for use in human clinical trials, and are stated at lower of cost or net realizable value.

Research and development costs, consisting principally of salaries, payroll taxes, research and laboratory fees, hospital and consultant fees related to the clinical trials, are expensed as incurred.

Stock-based Compensation - The Company accounts for stock-based awards to employees using the intrinsic value method in accordance with APB No. 25, Accounting for Stock Issued to Employees.

Stock Split - In October 1997, the Company effected a three-for-one split of its common shares. All share and per share amounts have been restated to reflect the stock split for all periods presented.

Net Loss Per Share - In February 1997, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards No. 128, "Earnings per Share" (SFAS 128). The Company adopted SFAS 128 in the second quarter of fiscal 1998 and restated earnings (loss) per share (EPS) data for prior periods to conform with SFAS 128. SFAS 128 requires a dual presentation of basic and diluted EPS. Basic EPS excludes dilution and is computed by dividing net income (loss) by the weighted average number of common shares outstanding during the period. Diluted EPS reflects the potential dilution from securities and other contracts which are exercisable or convertible into common shares. As a result of operating losses, there is no difference between basic and diluted calculations of EPS.

Recently issued accounting standards - In June 1997, the Financial Accounting Standards Board issued Statements of Financial Accounting Standards No. 130, "Reporting Comprehensive Income," which requires that an enterprise report the change in its net assets from nonowner sources by major components and as a single total. The Board also issued Statements of Financial Accounting Standards No. 131, "Disclosures about Segments of an Enterprise and

Related Information," which establishes annual and interim reporting standards for an enterprise's operating segments and related disclosures about its products, services, geographic areas, and major customers. Adoption of these statements will not impact the Company's consolidated financial position, results of operations or cash flows, and any effect will be limited to the form and content of its disclosures. Both statements are effective for fiscal years beginning after December 15, 1997, with earlier application permitted.

### 3. LICENSE AGREEMENT

In April 1997, BioTime and Abbott Laboratories ("Abbott") entered into an Exclusive License Agreement (the "License Agreement") under which BioTime granted to Abbott an exclusive license to manufacture and sell BioTime's proprietary blood plasma volume expander solution Hextend in the United States and Canada for certain therapeutic uses.

Under the License Agreement, Abbott has agreed to pay the Company up to \$40,000,000 in license fees; of which \$1,650,000 was paid as of June 30, 1998, and an additional \$850,000 will become payable upon achievement of specific milestones. Up to \$37,500,000 of additional license fees will be payable based upon annual net sales of Hextend at the rate of 10% of annual net sales if annual net sales exceed \$30,000,000 or 5% if annual net sales are between \$15,000,000 and \$30,000,000. Abbott's obligation to pay license fees on sales of Hextend will expire on the earlier of January 1, 2007 or, on a country by country basis, when all patents protecting Hextend in the applicable country expire or any third party obtains certain regulatory approvals to market a generic equivalent product in that country.

In addition to the license fees, Abbott will pay the Company a royalty on annual net sales of Hextend. The royalty rate will be 5% plus an additional .22% for each \$1,000,000 of annual net sales, up to a maximum royalty rate of 36%. 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 has agreed that the Company may convert Abbott's exclusive license to a non-exclusive license or may terminate the license outright if certain minimum sales and royalty payments are not met. In order to terminate the license outright, BioTime would pay a termination fee in an amount ranging from the milestone payments made by Abbott to an amount equal to three times prior year net sales, depending upon when termination occurs. Abbott's exclusive license also may terminate, without the payment of termination fees by the Company, if Abbott fails to market Hextend. Management believes that the probability of payments of any termination fee by the Company is remote.

The Company has deferred recognition of \$437,500 of the license fee revenue received for signing the License Agreement. The Company will recognize the deferred revenues during the

fiscal year ending June 30, 1999. The additional milestone payments that may be earned when the NDA is approved and when sales of Hextend commence will be recognized during the periods in which the milestones are achieved. Additional license fees and royalty payments will be recognized as the related sales are made and reported to the Company by Abbott.

#### 4. SHAREHOLDERS' EQUITY

On February 5, 1997, the Company completed a subscription rights offering raising \$5,662,180 (less offering costs of \$170,597), through the sale of 849,327 common shares.

During September 1996, the Company entered into an agreement with an individual to act as an advisor to the Company. In exchange for services, as defined, to be rendered by the advisor through September 1999, the Company issued warrants, with five year terms, to purchase 120,000 common shares at a price of \$6.25 per share. Warrants for 75,000 common shares vested and became exercisable and transferable when issued; warrants for the remaining 45,000 common shares vest ratably through September 1997 and become exercisable and transferable as vesting occurs. The estimated value of the services to be performed is \$60,000 and that amount has been capitalized and is being amortized over the three year term of the agreement.

During September 1995, the Company entered into an agreement for financial advisory services with Greenbelt Corp., a corporation controlled by Alfred D. Kingsley and Gary K. Duberstein, who are also shareholders of the Company. Under this agreement the Company issued to the financial advisor warrants to purchase 304,169 Common Shares at a price of \$1.97 per share, and the Company agreed to issue additional warrants to purchase up to an additional 608,336 Common Shares at a price equal to the greater of (a) 150% of the average market price of the Common Shares during the three months prior to issuance and (b) \$2 per share. The additional warrants were issued in equal quarterly installments over a two year period, beginning October 15, 1995. The exercise price and number of Common Shares for which the warrants may be exercised are subject to adjustment to prevent dilution in the event of a stock split, combination, stock dividend, reclassification of shares, sale of assets, merger or similar transaction. The warrants are exercisable at the following prices: 456,252 at \$1.97 per share; 76,042 at \$2.41 per share; 76,042 at \$9.88 per share; 76,042 at \$9.64 per share; 76,042 at \$10.73 per share; 76,042 at \$16.11 per share; and 76,042 at \$14.07 per share. The total value of these warrants at the agreement date, estimated to be \$300,000, was capitalized in fiscal 1996 and was amortized over the two year term of the agreement.

During April 1998, the Company entered into a new financial advisory services agreement with Greenbelt Corp. The agreement provides for an initial payment of \$90,000 followed by an advisory fee of \$15,000 per month that will be paid quarterly. The agreement will expire on March 31, 2000, but either party may terminate the agreement earlier upon 30 days prior written notice.

During June 1994, the Board of Directors authorized management to repurchase up to 200,000

of the Company's common shares at market price at the time of purchase. As of June 30, 1998, 90,800 shares have been repurchased and retired. No shares have been repurchased since August 28, 1995.

#### 5. STOCK OPTION PLAN

The Board of Directors of the Company adopted the 1992 Stock Option Plan (the "Plan") during September 1992. The Plan was approved by the shareholders at the 1992 Annual Meeting of Shareholders on December 1, 1992. Under the Plan, as amended, the Company has reserved 1,800,000 common shares for issuance under options granted to eligible persons. No options may be granted under the Plan more than ten years after the date the Plan was adopted by the Board of Directors, and no options granted under the Plan may be exercised after the expiration of ten years from the date of grant.

Under the Plan, options to purchase common shares may be granted to employees, directors and certain consultants at prices not less than the fair market value at date of grant for incentive stock options and not less than 85% of fair market value for other stock options. These options expire five to ten years from the date of grant and may be fully exercisable immediately, or may be exercisable according to a schedule or conditions specified by the Board of Directors or the Option Committee. During the three years ended June 30, 1998, 1997 and 1996, employees, including directors, were granted options to purchase 17,500, 123,000 and 6,000 common shares, respectively, and non-employees were granted options to purchase 14,500, 165,000 and 180,000 common shares respectively. At June 30, 1998, 619,000 shares were available for future grants under the Option Plan.

Option activity under the Plan is as follows:

	Number of Shares	Weighted Average Exercise Price
	-----	-----
Outstanding, July 1, 1995 (552,000 exercisable at a weighted average price of \$2.45)	675,000	\$ 2.21
Granted (weighted average fair value of \$0.74 per share)	186,000	1.07
Exercised	171,000	1.81
Canceled	--	--
	-----	-----
Outstanding, June 30, 1996 (537,000 exercisable at a weighted average price of \$2.26)	690,000	\$ 2.01

	Number of Shares	Weighted Average Exercise Price
	-----	-----
Granted (weighted average fair value of \$6.83 per share)	288,000	7.37
Exercised	138,000	2.37
Canceled	--	--
	-----	-----
Outstanding, June 30, 1997 (678,000 exercisable at a weighted average price of \$4.22)	840,000	3.78
Granted (weighted average fair value of \$18.25 per share)	32,000	16.56
Exercised	337,500	2.63
Canceled	--	--
	-----	-----
Outstanding, June 30, 1998 (411,500 exercisable at a weighted average price of \$6.52)	534,500	\$ 5.28
	-----	-----

Additional information regarding options outstanding as of June 30, 1998 is as follows:

Range of Exercise Prices	Number Outstanding	Options Outstanding		Options Exercisable	
		Weighted Avg. Remaining Contractual Life (yrs)	Weighted Avg. Exercise Price	Number Exercisable	Weighted Avg. Exercise Price
-----	-----	-----	-----	-----	-----
\$0.66-1.13	216,000	4.15	\$1.08	93,000	\$1.02
3.39-6.27	181,500	2.27	5.36	181,500	5.36
10.33-18.25	137,000	3.93	11.79	137,000	11.79
	534,500			411,500	

As discussed in Note 1, the Company continues to account for its employee stock-based awards using the intrinsic value method in accordance with Accounting Principles Board No. 25, Accounting for Stock Issued to Employees and its related interpretations. Accordingly, no compensation expense has been recognized in the financial statements for employee stock arrangements. Options to purchase 203,500 shares were outstanding to employees at June 30, 1998. Options granted to non-employees have been recognized in the financial statements at the

estimated fair value of the services or benefit provided. Options to purchase 331,000 shares were outstanding to non-employees at June 30, 1998.

Statement of Financial Accounting Standards No. 123, Accounting for Stock-Based Compensation, (SFAS 123) requires the disclosure of pro forma net income and earnings per share had the Company adopted the fair value method as of the beginning of fiscal 1995. Under SFAS 123, the fair value of stock-based awards to employees is calculated through the use of option pricing models, even though such models were developed to estimate the fair value of freely tradable, fully transferable options without vesting restrictions, which significantly differ from the Company's stock option awards. These models also require subjective assumptions, including future stock price volatility and expected time to exercise, which greatly affect the calculated values. The Company's calculations were made using the Black-Scholes option pricing model with the following weighted average assumptions: expected life, 24 - 60 months following vesting; stock volatility, 83.87% in 1998, 95% in 1997, and 92% in 1996; risk free interest rates, 5.64% in 1998, 5.96% in 1997, and 5.75% in 1996; and no dividends during the expected term. The Company's calculations are based on a multiple option valuation approach and forfeitures are recognized as they occur. If the computed fair values of the 1996, 1997 and 1998 awards had been amortized to expense over the vesting period of the awards, pro forma net loss would have been \$1,969,755 (\$0.25 per share) in 1996, \$3,983,890 (\$0.44 per share) in 1997 and \$3,665,915 (\$0.37 per share) in 1998. However, the impact of outstanding non-vested stock options granted prior to 1996 has been excluded from the pro forma calculation; accordingly, the 1996, 1997 and 1998 pro forma adjustments are not indicative of future period pro forma adjustments, when the calculation will apply to all applicable stock options.

#### 6. COMMITMENTS AND CONTINGENCIES

The Company has employment agreements with six officers/shareholders for five-year terms, five of which expire in June 2001 and one which expires in April 2002, and all provide for base salaries with annual increases. The agreements provide for severance payments equal to the greater of (a) 2.99 times the average annual compensation for the preceding five years and (b) the balance of the base salary for the unexpired portion of the term of the employment agreement. These officers/shareholders have signed intellectual property agreements with the Company as a condition of their employment.

The Company leases its principal office and research facilities under a two year agreement, expiring in June 1999. Rent expense totaled \$62,990, \$59,376, and \$58,188, for each of the three years ended June 30, 1998, 1997 and 1996, respectively; and cumulatively, \$289,692 for the period from inception to June 30, 1998.

7. INCOME TAXES

The primary components of the net deferred tax asset as of June 30 are:

	1998	1997
	-----	-----
Deferred Tax Asset:		
NOL Carryforwards	5,125,447	\$4,221,000
Research & Development Credits	444,398	
Deferred Tax Liability:		
Other, net	327,492	(171,000)
	-----	-----
Total	5,897,337	4,050,000
Valuation allowance	(5,897,337)	(4,050,000)
	-----	-----
Net deferred tax asset	-0-	-0-
	=====	=====

No tax benefit has been recorded through June 30, 1998 because of the net operating losses incurred and full valuation allowance provided. A valuation allowance is provided when it is more likely than not that some portion of the deferred tax asset will not be realized. The Company established a 100% valuation allowance at June 30, 1998 and 1997 due to the uncertainty of realizing future tax benefits from its net operating loss carryforwards and other deferred tax assets.

As of June 30, 1998, the Company has net operating loss carryforwards of approximately \$13,800,000 for federal and \$6,900,000 for state tax purposes, which expire during fiscal years 2006 and 1998, respectively.

Internal Revenue Code Section 382 places a limitation (the "Section 382 Limitation") on the amount of taxable income which can be offset by net operating loss ("NOL") carryforwards after a change in control (generally greater than 50% change in ownership) of a loss corporation. California has similar rules. Generally, after a control change, a loss corporation cannot deduct NOL carryforwards in excess of the Section 382 Limitation. Due to these "change in ownership" provisions, utilization of the NOL and tax credit carryforwards may be subject to an annual limitation regarding their utilization against taxable income in future periods.

8. RELATED PARTY TRANSACTIONS

During the years ended June 30, 1996, 1997, and 1998, \$36,000, \$33,500 and \$15,649 in fees for consulting services was paid to a member of the Board of Directors.

9. QUARTERLY RESULTS (UNAUDITED)

Summarized results of operations for each quarter of fiscal 1998 and 1997 are as follows:

1998 ----	First Quarter -----	Second Quarter -----	Third Quarter -----	Fourth Quarter -----	Total Year ----
Revenue	\$125,000	\$525,000	\$125,000	\$375,000	\$1,150,000
Net loss	\$982,621	\$637,177	\$1,071,538	\$762,010	\$3,453,346
Net loss per share	\$ .10	\$ .06	\$ .11	\$ .08	\$ .35
1997					
Revenue				\$62,500	\$62,500
Net loss	\$718,356	\$754,487	\$520,282	\$1,101,085	\$3,094,210
Net loss per share	\$ .09	\$ .09	\$ .06	\$ .12	\$ .35

Item 9.Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

Not applicable.



PART III

Item 10. Directors and Executive Officers of the Registrant.

Directors and Executive Officers

The names and ages of the directors and executive officers of the Company are as follows:

Paul Segall, Ph.D., 56, is the Chairman and Chief Executive Officer and has served as a director of the Company since 1990. He was a research scientist for Cryomedical Sciences, Inc. ("CMSI") and a member of its Board of Directors from 1987 to December 1990, serving as Director of Research and Vice President of Research for CMSI, from April 1988 until 1989. Dr. Segall received a Ph.D. in Physiology from the University of California at Berkeley in 1977.

Ronald S. Barkin, 52, became President of BioTime during October, 1997, after serving as Executive Vice President since April 1997. Mr. Barkin has been a director of the Company since 1990. Before becoming an executive officer of the Company, Mr. Barkin practiced civil and corporate law for more than 25 years after getting a J.D. from Boalt Hall, University of California at Berkeley.

Victoria Bellport, 33, is the Chief Financial Officer and Vice President and has been a director of the Company since 1990. Ms. Bellport received a B.A. in Biochemistry from the University of California at Berkeley in 1988.

Hal Sternberg, Ph.D., 45, is the Vice President of Research and has been a director of the Company since 1990. He was a research scientist for CMSI from 1987 to December 1990, serving as Vice President of Biochemistry for CMSI from November 1987 to 1989. Dr. Sternberg was a visiting scientist and research Associate at the University of California at Berkeley from 1985-1988, where he supervised a team of researchers studying Alzheimer's Disease. Dr. Sternberg received his Ph.D. from the University of Maryland in Biochemistry in 1982.

Harold Waitz, Ph.D., 55, is the Vice President of Engineering and has been a director of the Company since 1990. He was a research scientist for CMSI from 1987 to December 1990, serving as Vice President of Technology for CMSI from November 1987 to 1989. From 1986-1988, Dr. Waitz served as Vice President of Research at the Winters Institute, a non-profit biomedical research institution, at which Dr. Waitz studied arteriosclerosis in primates. He received his Ph.D. in Biophysics and Medical Physics from the University of California at Berkeley in 1983.

Judith Segall, 45, is the Vice President of Technology and Secretary, and has been a director of the Company from 1990 through 1994, and from 1995 through the present date. She performed services on a contract basis as a biochemist for CMSI during 1989, until the formation of BioTime. Ms. Segall received a B.S. in Nutrition and Clinical Dietetics from the University of California at Berkeley in 1989.

Jeffrey B. Nickel, Ph.D., 54, joined the Board of Directors of the Company during March 1997. Dr. Nickel is the President of Nickel Consulting through which he has served as a consultant to companies in the pharmaceutical and biotechnology industries since 1990. Prior to starting his consulting business, Dr. Nickel served in a number of management positions for Syntex Corporation and Merck & Company. Dr. Nickel received his Ph.D. in Organic Chemistry from Rutgers University in 1970.

Milton H. Dresner, 72, joined the Board of Directors of the Company during February 1998. Mr. Dresner is Co-Chairman of the Highland Companies, a diversified organization engaged in the development and ownership of residential and industrial real estate. Mr. Dresner serves as a director of Avatar Holdings, Inc., a real estate development company, Hudson General Corporation, an aviation services company, and Childtime Learning Centers, Inc. a child care and pre-school education services company.

#### Executive Officers

Paul Segall, Ronald S. Barkin, Victoria Bellport, Hal Sternberg, Harold Waitz and Judith Segall are the only executive officers of BioTime.

There are no family relationships among the directors or officers of the Company, except that Paul Segall and Judith Segall are husband and wife.

#### Directors' Meetings, Compensation and Committees of the Board

The Board of Directors has an Audit Committee, the members of which are Jeffrey Nickel and Milton Dresner. The purpose of the Audit Committee is to recommend the engagement of the corporation's independent auditors and to review their performance, the plan, scope and results of the audit, and the fees paid to the corporation's independent auditors. The Audit Committee also will review the Company's accounting and financial reporting procedures and controls and all transactions between the Company and its officers, directors, and shareholders who beneficially own 5% or more of the Common Shares.

The Company does not have a standing Nominating Committee. Nominees to the Board of Directors are selected by the entire Board.

The Board of Directors has a Stock Option Committee that administers the Company's 1992 Stock Option Plan and makes grants of options to key employees, consultants, scientific advisory board members and independent contractors of the Company, but not to officers or directors of the Company. The members of the Stock Option Committee are Paul Segall, Ronald S. Barkin, and Victoria Bellport. The Stock Option Committee was formed during September 1992.

During the fiscal year ended June 30, 1998, the Board of Directors met twelve times. No director attended fewer than 75% of the meetings of the Board or any committee on which they served.

Directors of the Company who are not employees receive an annual fee of \$20,000, which may be paid in cash or in Common Shares, at the election of the director. Directors of the Company and members of committees of the Board of Directors who are employees of the Company are not compensated for serving as directors or attending meetings of the Board or committees of the Board. Directors are entitled to reimbursements for their out-of-pocket expenses incurred in attending meetings of the Board or committees of the Board. Directors who are employees of the Company are also entitled to receive compensation in such capacity.

#### Executive Compensation

The Company has entered into five-year employment agreements (the "Employment Agreements") with Paul Segall, the Chairman and Chief Executive Officer; Victoria Bellport, the Chief Financial Officer; Judith Segall, Vice President of Technology and Corporate Secretary; Hal Sternberg, Vice President of Research; and Harold Waitz, Vice President of Engineering. The Employment Agreements will expire on December 31, 2000 but may terminate prior to the end of the term if the employee (1) dies, (2) leaves the Company, (3) becomes disabled for a period of 90 days in any 150 day period, or (4) is discharged by the Board of Directors for failure to carry out the reasonable policies of the Board, persistent absenteeism, or a material breach of a covenant. Under the Employment Agreement, the executive officers are presently receiving an annual salary of \$99,000, and will receive a one-time cash bonus of \$25,000 if the Company receives at least \$1,000,000 of equity financing from a pharmaceutical company. Each executive officer will be entitled to seek a modification of his or her Employment Agreement before the expiration of the five year term if the market value of the Company's outstanding capital stock exceeds \$75,000,000.

In the event of the executive officer's death during the term of his or her Employment Agreement, the Company will pay his or her estate his or her salary for a period of six month or until December 31, 2000, whichever first occurs. In the event that the executive officer's employment terminates, voluntarily or involuntarily, after a change in control of the Company through an acquisition of voting stock, an acquisition of the Company's assets, or a merger or consolidation of the Company with another corporation or entity, the executive officers will be entitled to severance compensation equal to the greater of (a) 2.99 times his or her average annual compensation for the preceding five years and (b) the balance of his or her base salary for the unexpired portion of the term of his Employment Agreement.

The Company also entered into a similar employment agreement with Ronald S. Barkin, which commenced on April 1, 1997 and expires on March 31, 2002

Each executive officer has also executed an Intellectual Property Agreement which provides that the Company is the owner of all inventions developed by the executive officer during the course of his or her employment.

## Insider Participation in Compensation Decisions

The Board of Directors does not have a standing Compensation Committee. Instead, the Board of Directors as a whole approves all executive compensation. All of the executive officers of the Company serve on the Board of Directors but do not vote on matters pertaining to their own personal compensation. Paul Segall and Judith Segall do not vote on matters pertaining to each other's compensation.

## Board of Directors Report on Executive Compensation

The compensation policies implemented by the Board of Directors have been influenced by the need to attract and retain executives with the scientific and management expertise to conduct the Company's product development program in a highly competitive industry dominated by larger, more highly capitalized companies. Executive compensation is also influenced by the cost of living in the San Francisco Bay Area. Executive compensation may be composed of three major components: (i) base salary; (ii) annual variable performance awards payable in cash and tied to the Company's attainment of corporate objectives and the officer's achievement of personal goals; and (iii) long-term stock-based incentive awards (stock options) designed to strengthen the mutuality of interests between the executive officers and the Company's shareholders.

The Company entered into five-year employment agreements with each of its executive officers in order to assure that their services would continue to be available at a pre-determined base salary during a critical period in the development of the Company's products and technology. The base salaries fixed by the employment agreements are at or below median salaries for small to medium market capitalization biotechnology and drug development companies in the same geographic area as the Company.

An annual bonus may be earned by each executive officer based upon the achievement of personal and Company performance goals. Because the Company is in the development stage, the use of performance milestones based upon profit levels and return on equity as the basis for such incentive compensation was not considered appropriate. Instead, the incentive awards have been tied to the achievement of personal and corporate performance targets. The Company performance goals vary from year to year according to the stage of the Company's operations. Important milestones that have been considered by the Board of Directors in determining incentive bonuses have been (i) procurement of additional capital, (ii) licensing Company products, (iii) completing specified research and development goals, and (iv) achievement of certain organizational goals. Personal goals are related to the functional responsibility of each executive officer. The Board of Directors as a whole determines whether or not each Company performance goal has been achieved. During the year ended June 30, 1998, the Board of Directors awarded cash bonuses to certain executive officers, including the Chief Executive Officer, as reflected in table shown below. In determining to award cash bonuses, the Board of Directors considered a number of factors, including, the executive officer's contribution to the Company's achievement of key milestones, especially the completion of its Phase III clinical trials, establishing investment banking relationships, and

improving shareholder relations and communications. Other significant factors considered were the executive officer's base salary and years of employment, the compensation being paid to executive officers of biotechnology and drug development companies in the San Francisco Bay Area, whether the executive officer was awarded any stock options as a long-term incentive, and the financial condition of the Company at the time the bonuses were awarded.

The Company did not grant any stock options to its executive officers during the fiscal year ending June 30, 1998.

The following table summarizes certain information concerning the compensation paid to the Company's five most highly compensated executive officers during the last three fiscal years.

SUMMARY COMPENSATION TABLE

Name and Principal Position	Year	Annual Compensation		Long-Term Compensation
		Salary (\$)	Bonus	Stock Options (Shares)
Paul Segall Chairman and Chief Executive Officer	1998	\$95,500	\$50,000	—
	1997	\$90,583	—	—
	1996	\$76,041	—	—
Hal Sternberg Vice President of Research	1998	\$95,500	\$25,000	—
	1997	\$90,583	\$25,000	—
	1996	\$76,041	—	—
Harold Waitz Vice President of Engineering	1998	\$95,500	—	—
	1997	\$90,583	\$50,000	—
	1996	\$76,041	—	—
Victoria Bellport Vice President and Chief Financial Officer	1998	\$95,500	\$25,000	—
	1997	\$90,583	\$25,000	—
	1996	\$76,041	—	—
Judith Segall Vice President and Corporate Secretary	1998	\$95,500	\$25,000	—
	1997	\$90,583	\$25,000	—
	1996	\$76,041	—	—

Stock Options

The following table provides information with respect to the Company's five most highly compensated executive officers, concerning the exercise of options during the last fiscal year and unexercised options held as of June 30, 1998

Aggregated Options Exercised in Last Fiscal Year,  
and Fiscal Year-End Option Values

Name	Number of Shares Acquired on Exercise	Value Realized (\$)(1)	Number of Unexercised Options at June 30, 1998		Value of Unexercised In-the-Money Options at June 30, 1998	
			Exercisable	Unexercisable	Exercisable	Unexercisable
Paul Segall	63,000	500,850	0	0	0	0
Ronald S. Barkin	0	--	0	0	0	0
Hal Sternberg	63,000	500,850	0	0	0	0
Harold Waitz	63,000	500,850	0	0	0	0
Victoria Bellport	0	--	0	0	0	0
Judith Segall	0	--	0	0	0	0

(1) Based on the average of the high and low bid prices of a Common Share as reported on Nasdaq on the date the options were exercised.

Certain Relationships and Related Transactions

During the twelve months ended June 30, 1998 \$15,649 in fees for consulting services was paid to Jeffrey B. Nickel, a member of the Board of Directors.

During September 1995, the Company entered into an agreement for financial advisory services with Greenbelt Corp., a corporation controlled by Alfred D. Kingsley and Gary K. Duberstein. Under this agreement the Company issued to the financial advisor warrants to purchase 304,168 Common Shares at a price of \$1.97 per share (as adjusted to reflect payment of a stock dividend during October 1997), and the Company agreed to issue additional warrants to purchase up to an additional 608,336 Common Shares at a price equal to the greater of (a) 150% of the average market price of the Common Shares during the three months prior to issuance and (b) \$2 per share (as adjusted for the Company's subscription rights distribution during January 1997, and payment of a stock dividend during October 1997). The additional warrants were issued in equal quarterly installments over a two year period, beginning October 15, 1995. The exercise price and number of Common Shares for which the warrants may be exercised are subject to adjustment to prevent dilution in the event of a stock split, combination, stock dividend, reclassification of shares, sale of assets, merger or similar transaction. The warrants are exercisable at the following prices: 456,252 at \$1.97 per share; 76,042 at \$2.41 per share; 76,042 at \$9.88 per share; 76,042 at \$9.64 per share; 76,042 at \$10.73 per share; 76,042 at \$16.11 per share; and 76,042 at \$14.07 per share.

Under the agreement, upon the request of Greenbelt Corp., the Company will file a registration statement to register the warrants and underlying Common Shares for sale under the Securities Act of 1933, as amended (the "Act") and applicable state securities or "Blue Sky" laws. The Company will bear the expenses of registration, other than any underwriting discounts that may be incurred by Greenbelt Corp. in connection with a sale of the warrants or common shares. The Company shall not be obligated to file more than two such registration statements, other than registration statements on Form S-3. Greenbelt Corp. also is entitled to include warrants and common shares in any registration statement filed by the Company to register other securities for sale under the Act.

During April 1998, the Company entered into an new financial advisory services agreement with Greenbelt Corp. The new agreement provides for an initial payment of \$90,000 followed by an advisory fee of \$15,000 per month that will be paid quarterly. The agreement will expire on March 31, 2000, but either party may terminate the agreement earlier upon 30 days prior written notice.

The Company has agreed to reimburse Greenbelt Corp. for all reasonable out-of-pocket expenses incurred in connection with its engagement as financial advisor, and to indemnify Greenbelt Corp. and the officers, affiliates, employees, agents, assignees, and controlling person of Greenbelt Corp. from any liabilities arising out of or in connection with actions taken on behalf of the Company under the agreement.

#### Comparison of Shareholder Return

The graph depicted below reflects a comparison of the cumulative total return (change in stock price plus reinvestment of dividends) of the Company's Common Shares with the cumulative total returns of the Nasdaq Stock Market Index, the BioCentury 100 Stock Index, and the Hambrecht & Quist Biotechnology Index. The BioCentury 100 Stock Index includes many companies in an early stage of development that have a market capitalization similar to BioTime's. The graph covers the period from July 1, 1993, the first day of the Company's fifth preceding fiscal year, through the fiscal year ended June 30, 1998.

The graph assumes that \$100 was invested on July 1, 1993 in the Company's Common Shares and in each index and that all dividends were reinvested. No cash dividends have been declared on the Company's Common Shares.

Measurement Period (Fiscal Year Covered)	BioTime Shares	BioCentury 100	H&Q BioTech Index	NASDAQ US Index
July 1, 1993	100.00	100.00	100.00	100.00
June 30, 1994	30.49	91.96	95.57	100.96
June 30, 1995	17.07	121.95	129.06	134.77
June 30, 1996	221.95	178.93	167.86	173.03
June 30, 1997	321.95	189.34	175.18	210.38
June 30, 1998	183.11	202.47	187.97	277.69

Item 12. Security Ownership of Certain Beneficial Owners and Management.

The following table sets forth information as of September 22, 1998 concerning beneficial ownership of Common Shares by each shareholder known by the Company to be the beneficial owner of 5% or more of the Company's Common Shares, and the Company's executive officers and directors. Information concerning certain beneficial owners of more than 5% of the Common Shares is based upon information disclosed by such owners in their reports on Schedule 13D or Schedule 13G.

	Number of Shares	Percent of Total
	-----	-----
Alfred D. Kingsley (1)	1,305,055	11.9%
Gary K. Duberstein Greenbelt Corp. Greenway Partners, L.P. Greenhouse Partners, L.P. 277 Park Avenue, 27th Floor New York, New York 10017		
Paul and Judith Segall (2)	709,914	7.1
Harold D. Waitz (3)	499,207	5.0
Hal Sternberg	478,137	4.8
Victoria Bellport	196,170	2.0
Ronald S. Barkin (4)	190,011	1.9
Jeffrey B. Nickel (5)	15,000	*
Milton H. Dresner (6)	11,000	*
All officers and directors as a group (8 persons) (4) (5) (6)	2,089,439	20.6%
- - - - -		

\* Less than 1%

(1) Includes 912,505 Common Shares issuable upon the exercise of certain warrants owned beneficially by Greenbelt Corp and 54,300 Common Shares owned by Greenbelt Corp. Mr. Kingsley and Mr. Duberstein may be deemed to beneficially own the warrant shares that Greenbelt Corp. beneficially owns. Includes 82,500 Common Shares owned by Greenway Partners, L.P. Greenhouse Partners, L.P. is the general partner of Greenway Partners, L.P. and Mr. Kingsley and Mr. Duberstein are the general partners of Greenhouse Partners, L.P. Greenhouse Partners, L.P., Mr. Kingsley and Mr. Duberstein may be deemed to beneficially own the Common Shares that Greenway Partners, L.P. beneficially owns. Includes 245,850 Common Shares owned solely by Mr. Kingsley, as to which Mr. Duberstein



disclaims beneficial ownership. Includes 9,900 Common Shares owned solely by Mr. Duberstein, as to which Mr. Kingsley disclaims beneficial ownership.

- (2) Includes 517,377 shares held of record by Paul Segall and 192,537 shares held of record by Judith Segall.
- (3) Includes 2,000 shares held for the benefit of Dr. Waitz's minor children.
- (4) Includes 135,000 Common Shares issuable upon the exercise of certain options.
- (5) Includes 5,000 Common Shares issuable upon the exercise of certain options.
- (6) Includes 500 Common Shares that Mr. Dresner may acquire in lieu of cash director's fees during the next sixty days.

#### COMPLIANCE WITH SECTION 16(a) OF THE SECURITIES EXCHANGE ACT OF 1934

Section 16(a) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), requires the Company's directors and executive officers and persons who own more than ten percent (10%) of a registered class of the Company's equity securities to file with the Securities and Exchange Commission (the "SEC") initial reports of ownership and reports of changes in ownership of Common Shares and other equity securities of the Company. Officers, directors and greater than ten percent beneficial owners are required by SEC regulation to furnish the Company with copies of all reports they file under Section 16(a).

To the Company's knowledge, based solely on its review of the copies of such reports furnished to the Company and written representations that no other reports were required, all Section 16(a) filing requirements applicable to its officers, directors and greater than ten percent beneficial owners were complied with during the fiscal year ended June 30, 1998, except that Milton H. Dresner filed a Form 5 disclosing two acquisitions of Common Shares that should have been reported on a Form 4 for the month of May 1998.

PART IV

Item 14. Exhibits, Financial Statement Schedules and Reports on Form 8-K

(a-1) Financial Statements.

The following financial statements of BioTime, Inc. are filed in the Form 10-K:

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Independent Auditors' Report	33
Balance Sheet at June 30, 1998 and 1997	34
Statements of Operations for each of the three years in the period ending June 30, 1998, and for the period from November 30, 1990 (inception) to June 30, 1998	35
Statements of Shareholders' Equity for the period from November 30, 1990 (inception) to June 30, 1998	36-37
Statements of Cash Flows for each of the three years in the period ending June 30, 1998, and for the period from November 30, 1990 (inception) to June 30, 1998	38-39
Notes to Financial Statements	40-48

(a-3) Exhibits.

Exhibit Numbers	Description
3.1	Articles of Incorporation, as Amended.**
3.3	By-Laws, As Amended.#
4.1	Specimen of Common Share Certificate.+
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	Employment Agreement dated June 1, 1996 between the Company and Paul Segall.++
10.3	Employment Agreement dated June 1, 1996 between the Company and Hal Sternberg.++
10.4	Employment Agreement dated June 1, 1996 between the Company and Harold Waitz.++
10.5	Employment Agreement dated June 1, 1996 between the Company and Judith Segall.++
10.6	Employment Agreement dated June 1, 1996 between the Company and Victoria Bellport.++
10.7	Intellectual Property Agreement between the Company and Paul Segall.+
10.8	Intellectual Property Agreement between the Company and Hal Sternberg.+
10.9	Intellectual Property Agreement between the Company and Harold Waitz.+
10.10	Intellectual Property Agreement between the Company and Judith Segall.+
10.11	Intellectual Property Agreement between the Company and Victoria Bellport.+
10.12	Agreement between CMSI and BioTime Officers Releasing Employment Agreements, Selling Shares, and Transferring Non-Exclusive License.+
10.13	Agreement for Trans Time, Inc. to Exchange CMSI Common Stock for BioTime, Inc. Common Shares.+
10.14	1992 Stock Option Plan, as amended.##
10.15	Employment Agreement dated April 1, 1997 between the Company and Ronald S. Barkin.^

10.16 Intellectual Property Agreement between the Company and  
Ronald S. Barkin.^

23.1 Consent of Deloitte & Touche LLP\*\*

25 Financial Data Schedule\*\*

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

# Incorporated by reference to Registration Statement on Form S-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 the Company's Form 10-K for the fiscal year ended June 30, 1994.

++ Incorporated by reference to the Company's Form 10-K for the fiscal year ended June 30, 1996.

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

## Incorporated by reference to Registration Statement on Form S-8, File Number 333-30603 filed with the Securities and Exchange Commission on July 2, 1997.

\*\* Filed herewith.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report on Form 10-K to be signed on its behalf by the undersigned, thereunto duly authorized on the 28th day of September 1998.

BIOTIME, INC.

By: /s/ Paul E. Segall

-----  
 Paul E. Segall, Ph.D.  
 Chairman and Chief Executive  
 Officer (Principal executive  
 officer)

Signature -----	Title -----	Date -----
/s/Paul E. Segall ----- Paul E. Segall, Ph.D.	Chairman, Chief Executive Officer and Director (Principal Executive Officer)	September 28, 1998
/s/Ronald S. Barkin ----- Ronald S. Barkin	President and Director	September 28, 1998
/s/Harold D. Waitz ----- Harold D. Waitz, Ph.D.	Vice President and Director	September 28, 1998
Hal Sternberg ----- Hal Sternberg, Ph.D.	Vice President and Director	September 28, 1998
Victoria Bellport ----- Victoria Bellport	Chief Financial Officer and Director (Principal Financial and Accounting Officer)	September 28, 1998
/s/Judith Segall ----- Judith Segall	Vice President, Corporate Secretary and Director	September 28, 1998
/s/Jeffrey B. Nickel ----- Jeffrey B. Nickel	Director	September 28, 1998
/s/Milton H. Dresner ----- Milton H. Dresner	Director	September 28, 1998

INDEPENDENT AUDITORS' CONSENT

We consent to the incorporation by reference in Registration Statement Nos.33-56766, 33-88968 and 333-30603 of BioTime, Inc. on Form S-8 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.

We also consent to the reference to us under the heading "Selected Financial Data" in such Form 10-K.

DELOITTE & TOUCHE, LLP  
San Francisco, California  
September 23, 1998

AMENDED ARTICLES OF INCORPORATION  
OF  
BIOTIME, INC.

Paul Segall and Judith Segall certify that:

1. They are the President and the Secretary, respectively, of BioTime, Inc., a California Corporation.

2. The Articles of Incorporation of this corporation are amended to read in full as follows:

"ONE: The name of this corporation is BioTime, Inc.

TWO: The purpose of the corporation is to engage in any lawful act or activity for which a corporation may be organized under the General Corporation Law of California other than the banking business, the trust company business, or the practice of a profession permitted to be incorporated by the California Corporations Code.

THREE: The corporation is authorized to issue two classes of shares, which shall be designated "Common Shares" and "Preferred Shares". The number of Common Shares which the corporation is authorized to issue is 5,000,000 and the number of Preferred Shares which the corporation is authorized to issue is 1,000,000. The Preferred Shares may be issued in one or more series as the board of directors may by resolution determine. The board of directors is authorized to fix the number of shares of any series of Preferred Shares and to determine or alter the rights, preferences, privileges, and restrictions granted to or imposed on the shares of Preferred Shares as a class, or upon any wholly unissued series of any Preferred Shares. The board of directors may, by resolution, increase or decrease (but not below the number of shares of such series then outstanding) the number of shares of any series of Preferred Shares subsequent to the issue of shares of that series. Upon the amendment of this article to read as herein set forth, each outstanding share of common stock is converted into or reconstituted as 0.1667 Common Share.

FOUR: The liability of the directors of the corporation for monetary damages shall be eliminated to the fullest extent permissible under California law. The corporation is authorized to indemnify "agents", as such term is defined in Section 317 of the California Corporations Code, to the fullest extent permissible under California law."

3. The foregoing amendment of articles of incorporation has been duly approved by the board of directors.

4. The foregoing amendment of articles of incorporation has been duly approved by the required vote of shareholders in accordance with Section 902 of the Corporations Code. The total number of outstanding shares of the corporation is 5,351,672. The number of shares voting in favor of the amendment equaled or exceeded the vote required. The percentage vote required was more than 50%.

We further declare under penalty of perjury under the laws of the State of California that the matters set forth in this amendment are true and correct of our own knowledge.

Date: July 15, 1991

s/Paul Segall  
-----  
Paul Segall, President

s/Judith Segall  
-----  
Judith Segall, Secretary

CERTIFICATE OF AMENDMENT  
OF  
ARTICLES OF INCORPORATION

Ronald S. Barkin and Judith Segall certify that:

1. They are the President and Secretary, respectively, of BioTime, Inc., a California corporation.

2. The sentence of Article THREE of the Articles of Incorporation that now reads "The number of Common Shares which the Corporation is authorized to issue is 25,000,000 and the number of Preferred Shares which the Corporation is authorized to issue is 1,000,000" is amended to read as follows:

"The number of Common Shares which the Corporation is authorized to issue is 40,000,000 and the number of Preferred Shares which the Corporation is authorized to issue is 1,000,000."

3. The foregoing amendment of Articles of Incorporation has been duly approved by the board of directors.

4. The foregoing amendment of Articles of Incorporation has been duly approved by the required vote of shareholders in accordance with section 902 of the Corporations Code. The total number of outstanding Common Shares of the

corporation entitled to vote with respect to the amendment was 9,935,579. There are no Preferred Shares outstanding. The number of Common Shares voting in favor of the amendment equaled or exceeded the vote required. The percentage vote required was more than 50%.

We further declare under penalty of perjury under the laws of the State of California that the matters set forth in this certificate are true and correct of our own knowledge.

Executed at Berkeley, California on June 1, 1998.

s/Ronald S. Barkin  
-----  
Ronald S. Barkin  
President

s/Judith Segall  
-----  
Judith Segall  
Secretary



12-MOS  
JUN-30-1998  
JUL-01-1997  
JUN-30-1998  
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0  
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0  
4,351,693  
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(276,832)  
(3,453,346)  
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(3,453,346)  
(0.35)  
(0.35)