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, 1999

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 0-22025

AASTROM BIOSCIENCES, INC.
(Exact name of registrant as specified in its charter)

Michigan	94-3096597
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

24 Frank Lloyd Wright Drive
P. O. Box 376
Ann Arbor, MI 48106
(Address of principal executive offices, including zip code)

Registrant's telephone number, including area code: (734) 930-5555

Securities registered pursuant to Section 12(b) of the Act:
None

Securities registered pursuant to Section 12(g) of the Act:

Common Stock, no par value

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 the registrant's Common Stock, no par value ("Common Stock"), held by non-affiliates of the registrant (based on the closing sales price of the Common Stock as reported on the Nasdaq National Market) on September 15, 1999 was approximately $25 million. Excludes shares of Common Stock held by directors, officers and each person who holds 5% or more of the outstanding shares of Common Stock, since such persons may be deemed to be affiliates of the registrant. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

As of September 10, 1999, 16,994,125 shares of Common Stock, no par value, were outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Document	FORM 10-K REFERENCE
Proxy Statement for the Annual Meeting of Shareholders scheduled for November 17, 1999	Items 10, 11, 12 and 13 of Part III

AASTROM BIOSCIENCES, INC.

ANNUAL REPORT ON FORM 10-K

TABLE OF CONTENTS

Except for the historical information presented, the matters discussed in this Report include forward-looking statements that involve risks and uncertainties. Aastrom's actual results may differ significantly from the results discussed in the forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those discussed under the caption "Business Risks" in "Management's Discussion and Analysis of Financial Condition and Results of Operations."

PART I

ITEM 1. BUSINESS

OVERVIEW

Aastrom Biosciences, Inc. ("Aastrom" or the "Company") is developing automated clinical systems designed to enable therapeutic procedures using living cells in the treatment of cancer and other diseases and in the restoration of normal tissues. The AastromReplicell(TM) Cell Production System (the "AastromReplicell(TM) System"), Aastrom's lead product, is currently in multi-site U.S. clinical trials for the production of either bone marrow or umbilical cord blood cells to mitigate the toxicity of aggressive chemotherapy used to treat cancer and other blood disorders. The AastromReplicell(TM) System is designed to place patient-specific cell production capability directly in patient treatment centers and to enable physicians to access cells for therapy just as they do with traditional pharmaceuticals. Improved, cost effective, access to cells should expand the use of current cell therapies as well as increase the breadth of new disease treatments with cells. The AastromReplicell(TM) System is designed as a family of products keyed by a multi-use instrumentation platform that operates single-use therapy-specific kits tailored for each patient application. Market launch of the AastromReplicell(TM) System and the SC-I Therapy Kit for the production of bone-marrow derived stem cells and the CB-I Therapy Kit for the production of umbilical cord blood cells has begun in Europe. The AastromReplicell(TM) is also available for sale in the U.S. for research and investigational use.

Once established for use in stem cell therapy, Aastrom intends to leverage the cell production capabilities of the AastromReplicell(TM) System into selected emerging therapies being developed by other companies and institutions. This can occur through the development of additional therapy kits to be operated by the AastromReplicell(TM) System instrumentation. Aastrom intends to pursue strategic collaborations for the development of the AastromReplicell(TM) System in certain of these other cell therapy market segments. In ex vivo gene therapy, Aastrom is also developing the Aastrom(TM) Gene Loader, which provides enhanced methods for the genetic modification of cells and addresses the production of gene-modified cells.

In May 1999, the Company formed Zellera AG (Zellera) as a wholly-owned subsidiary based in Berlin, Germany. The formation of Zellera is intended to provide access to additional funding and collaboration opportunities in new product areas and also to support Aastrom's European product commercialization efforts. Initial funding for Zellera is being pursued, which is planned to consist of a combination of investment capital and loans and subsidies from the German government. With this potential funding, Zellera will have access to Aastrom's intellectual property base for certain specified human cell therapies and will pursue development of new product areas.

CELL THERAPY

Cell therapy is the use of living cells in the treatment of medical disorders. These cells can either be used in conjunction with, or as a replacement to, traditional therapies. Cell therapy has been used for many years, beginning with simple, but very effective, blood and platelet transfusion. More recently, cell therapies have expanded to include specialized procedures including bone marrow, or stem cell transplants. In this procedure, stem cells are transplanted into patients to restore blood and immune system function that is damaged or destroyed by aggressive chemotherapy used to treat the cancer. This form of cell therapy, as with a number of emerging new therapies, has been hampered by a number of limitations relating to gaining access to the cells necessary for transplantation.

To date, cell therapies have generally involved the collection of large amounts of cells from the patient, or from a matched donor which are subsequently re-infused. This approach is time consuming, expensive and quite invasive to the patient. An alternative to the collection of large quantities of cells for these therapies is to grow the cells in culture from a

small starting quantity of cells. However, this approach has been hampered by a number of technical difficulties and a requirement to comply with stringent regulatory standards, which have limited the widespread practice of ex vivo cell production.

The success of cellular therapy is based, in part, on the need for care providers to be able to access therapeutic quantities of biologically active cells necessary for patient treatment. The AastromReplicell(TM) System is being developed to fill this current and growing need in cell therapy.

In ex vivo gene therapy, genes are introduced into target cells in order to selectively correct or modulate disease conditions, or to modify cells for production of a therapeutic protein. Aastrom believes that the successful practice of ex vivo gene therapy will require the development of processes and products for the reliable, high-efficiency transfer of genes into cells and a means to produce the necessary dose of the genetically modified cells under current Good Manufacturing Practices ("GMP").

STEM CELL THERAPY

Stem cell therapy is used to treat cancer patients who undergo chemotherapy or radiation therapy at dose levels that are toxic to the hematopoietic system, which is comprised of the bone marrow and the cells of the blood and immune system. The objective of stem cell therapy is to restore the patient's blood and immune system (called the hematopoietic system) via the infusion and subsequent engraftment of healthy cells to replace bone marrow and result in the rapid recovery of neutrophils and platelets that have been destroyed by chemotherapy and radiation therapy. Stem cell therapy reduces the risk of life-threatening infections and bleeding episodes following cancer treatments. In order to treat many cancers, high intensity chemotherapy or radiation therapy is often required, which may substantially destroy ("myeloablate") or partially destroy ("myelosuppress") the patient's hematopoietic system.

Cells required for effective stem cell therapy include stem cells, to replenish depleted bone marrow and provide a long-term ongoing source of the multilineage progenitor cells of the blood and immune system, and early and late stage hematopoietic progenitor cells, to provide for rapid neutrophil and platelet recoveries. Stromal accessory cells are believed to further augment the growth of bone marrow. In the adult, all of these cell types originate in the bone marrow. For traditional stem cell transplant procedures, these cells are currently collected from the donor or patient directly through multiple syringe aspirations under general anesthesia, known as bone marrow collection, or through blood apheresis following treatment with drugs which cause cells to be released or mobilized from the bone marrow into the blood. This latter technique is known as a peripheral blood stem cell ("PBSC") collection. The blood cells found in the umbilical cords of newborn infants include cells effective for stem cell therapy. This source of cells is being explored by physicians as a significant new development in stem cell therapy, but is currently limited by difficulties in obtaining sufficient quantities of these cells and by prolonged engraftment times for the cells once transplanted into the patient. See "--Current Stem Cell Collection Methods."

Once collected, the stem cell mixture is infused intravenously and the stem and stromal accessory cells migrate into the bone cavity where they engraft to form new marrow tissue. The hematopoietic progenitor cell components of the cell mixture provide early restoration of circulating white blood cells and platelets. The replenished bone marrow will normally provide long-term hematopoietic function, but complete restoration of bone marrow may, in some cases, take years following myeloablative cancer therapy. When the patient's hematopoietic system contains malignant cells itself, such as in the case of leukemia, stem cells from a suitable donor are generally required in order to avoid reintroducing the disease during cell infusion. Such donor derived transplants are termed "allogeneic" transplants. Procedures using cells derived from the patient are termed "autologous" transplants.

STEM CELL THERAPY MARKET OPPORTUNITY

Stem cell therapy is a widely used medical procedure in the treatment of cancer patients. It is estimated that over 50,000 stem cell transplant procedures are performed annually. Stem cell therapy, in the form of bone marrow transplantation, was originally used in patients who had received treatment for blood and bone marrow cancers such as leukemia, and genetic diseases of the blood. However, because stem cell therapy has been shown to promote the rapid recovery of hematopoietic function, it is now being increasingly used to enable patients with other forms of cancer to receive high dose or multicycle chemotherapy and radiation treatments. These high-intensity therapies are believed to have a greater probability of

eradicating certain dose-sensitive cancers but, because of their hematopoietic toxicity, cannot generally be given without stem cell therapy. As a result, some patients are treated with lower and less effective doses, and fewer cycles of therapy than might otherwise be desired.

Stem cell therapy may also enhance the effectiveness of blood cell growth factors used. The timing and extent of additional cycles of chemotherapy is often limited by the recovery of a patient's white blood cells and platelets because a delayed recovery of these cells can leave the patient susceptible to life-threatening infection and bleeding episodes, and this limitation may allow for the growth of residual tumor cells. Many cancer patients are routinely treated with growth factors including G-CSF, such as Neupogen(R) (from Amgen, Inc.) and GM-CSF, such as Leukine(R) (from Immunex Corp.) which enhance the development of mature circulating white blood cells and platelets from the early progenitor bone-marrow derived cells, thereby decreasing the time between cycles of therapy and the probability of infection. However, during high dose or multicycle therapy, the stem and progenitor cells on which these growth factors act are often depleted. Without these cells, growth factors have a limited or negligible effect. Stem cell therapy generally enhances the effectiveness of growth factors by introducing target stem and progenitor cells for growth factors to act upon such that patients generally exhibit a more rapid and consistent hematopoietic recovery.

CURRENT STEM CELL COLLECTION METHODS

Currently, the bone marrow-derived cells required for stem cell therapy are collected primarily either through the bone marrow harvest method or the PBSC collection method.

BONE MARROW HARVEST

A traditional bone marrow harvest is a costly and invasive surgical procedure in which a physician removes approximately one liter of bone marrow from a patient or donor. This volume of bone marrow is removed using needles inserted into the cavity of the hip bone. The bone marrow harvest procedure typically requires between two to four hours of operating room time, with the physician often making more than 90 separate puncture sites in the hip bone to collect the necessary amount of bone marrow. Due to the length of the procedure and the trauma to the patient, general surgical anesthesia is administered and the patient is often hospitalized for a day. Frequently, the patient suffers pain from the procedure for several days after being discharged from the hospital. Furthermore, complications resulting from the general anesthesia or invasive nature of the procedure occur in a small percentage of patients. Bone marrow harvest provides a reliable source of stem and stromal accessory cells and has been the preferred source of cells in allogeneic transplants.

PBSC MOBILIZATION AND COLLECTION

PBSC mobilization is a technique in which bone marrow-derived cells are harvested from a patient's or donor's circulating blood, rather than from bone marrow. In a PBSC mobilization procedure, the patient receives multiple injections of growth factors or cytotoxic drugs, or both, over the course of a week or more, which cause stem and progenitor cells resident in the bone marrow to mobilize into the circulating blood. The mobilized cells are then collected by connecting the patient to a blood apheresis device, often times through the placement of a catheter, which draws and returns large volumes of the patient's or donor's blood in order to selectively remove the desired stem and progenitor cells. Each collection procedure typically lasts for two to six hours and is typically repeated on two to five consecutive days, however, procedure time has decreased and is expected to continue to decrease as the procedure is further optimized. Specialized laboratory testing over the period of mobilization and cell harvesting is necessary to determine that a sufficient quantity of desired cells has been collected, adding to the cost of the procedure. The PBSC process has become the predominant procedure in autologous stem cell therapy.

UMBILICAL CORD BLOOD

Umbilical Cord Blood ("UCB"), which is collected directly from the umbilical cords of newborn infants, without pain or risk to the infant or the mother, is emerging as a new source of cells for stem cell therapy. UCB has been reported to have stem cell concentrations that are much higher than that typically obtained from traditional bone marrow and PBSC collection methods. After collection, UCB is typically frozen for later use in a stem cell therapy procedure. Storage of UCB samples involves small volumes of cells, compared to typical bone marrow or PBSC storage. Accordingly, the costs of collection and

storage of UCB cells are comparatively low. UCB may provide a tumor-free source of cells, making it a preferred source of cells for many current stem cell therapy procedures in cancer patients with metastatic disease (e.g. disease that has spread throughout the patient's body, affecting their own bone marrow and stem cells), and particularly in the absence of a suitably matched donor. Before UCB can become a major supply source for stem cell therapy, a coordinated UCB banking system must emerge. In this regard, several UCB banking institutions have been established to date, and the group is growing in both number and size. The establishment of these UCB banking institutions is an initial step which may lead to a coordinated UCB banking system.

PROCEDURE CONSIDERATIONS

Although stem cell therapy is being utilized to treat more patients for a broader range of diseases, its availability continues to be limited by the high costs of procuring cells, the invasive nature of traditional cell procurement techniques, and by the technical difficulties related to those collection procedures. Aastrom believes that current charges for typical stem cell collection procedures through bone marrow harvest or PBSC collection ranges from $10,000 to $20,000 with considerable variability between institutions.

Overall costs of stem cell therapy include the costs of the cell collection and infusion procedures, and the costs associated with supporting the patient during post-transplant recovery. Post-transplant costs include hospitalization time, antibiotic support, management of adverse reactions to the large volume cell infusions, and infusions of platelets and red blood cells. Any new stem cell therapy process will generally need to provide similar recovery endpoints to be competitive with the current procedures. In this regard, PBSC procedures have gained popularity compared with bone marrow harvests because the number of platelet transfusions is reduced for some patients.

While UCB is a promising new source of cells for transplantation, certain disadvantages exist including the relatively low number of available cells which may contribute to prolonged engraftment times for the cells once transplanted into the patient. Unlike bone marrow or PBSC harvest, where the collection of more cells to meet a particular treatment is typically achievable, the number of cells available from a UCB donor is limited to the small quantity of cells available at the initial collection. This problem is exacerbated by the required cryopreservation of the cells, which causes additional cell loss. The resultant low cell number is believed to be responsible for the longer hematopoietic recovery times observed with UCB transplants, as compared with bone marrow or PBSC transplants. Further, because of the low cell number, UCB transplants are typically restricted to small patients. Therefore, increasing the number of therapeutic cells from a UCB sample may facilitate the more widespread use of UCB transplants. Aastrom believes that providing the transplant site with the capability to carry out the UCB cell expansion will be a major factor in the increased use of UCB for stem cell therapy and a significant business opportunity.

Products to implement a cell isolation method known as CD34 selection have been developed by other companies in conjunction with bone marrow harvest and PBSC collections. CD34 selection is a process designed to isolate specific types of cells in order to decrease storage and infusion problems associated with the large volume of fluids collected in bone marrow or multiple apheresis procedures and to assist in depleting T-cells and tumor cells from the transplant cells collected. CD34 selection is used after the initial collection of stem and progenitor cells and, therefore, can increase the difficulties or costs associated with the cell collection procedure.

AASTROM TECHNOLOGY

Aastrom is developing proprietary product and process technologies that are pioneering the ex vivo production of human stem and progenitor cells. Aastrom's initial product candidate, the AastromReplicell(TM) System utilizes Aastrom's process technology and is designed to enable the ex vivo production of human stem and progenitor cells as an alternative to bone marrow harvest and PBSC mobilization methods and to enhance the clinical utility of UCB cells. The initial application of the AastromReplicell(TM) System is the production of cells for stem cell therapy. However, once established for use in stem cell therapy, Aastrom plans to leverage the cell production capabilities of the AastromReplicell(TM) System across multiple cell therapy opportunities as they develop. As these emerging cell therapies are developed, Aastrom intends to develop and introduce new therapy kits through collaborative relationships with others directed toward the treatment of cancer, infectious diseases, auto-immune diseases and in the restoration of solid tissues.

CORE TECHNOLOGIES

Stem Cell Growth Process

Aastrom has developed proprietary processes and patented technologies for ex vivo production of therapeutic stem and progenitor cells as well as other key cells found in human bone marrow. Aastrom's proprietary process entails the placement of a stem cell mixture in a culture environment that mimics the biology and physiology of natural bone marrow. This process enables the stem and early and late-stage progenitor cells needed for an effective stem cell therapy procedure to be concurrently expanded. Growth factors can be added to stimulate specific cell lineages to grow or to increase cell growth to meet a particular therapeutic objective. The stem cell growth process can best be completed with little or no additional stem cell selection or purification procedures. This stem cell replication process can also enable or augment the genetic modification of cells by providing the cell division step needed for new genes to integrate into the stem cell DNA. Other currently available cell culture methods tend to result in a loss of stem cells, either through death or through differentiation into mature cells. Aastrom has exclusive rights to several issued U.S. patents that cover these processes and cell compositions. See "--Additional Stem Cell and Other Cell Therapies."

Aastrom Cell Culture Chamber

Aastrom has developed a proprietary cell culture chamber to implement its process technology. The culture chamber produces cells on a clinical scale and allows for simple, sterile recovery of the cells for therapeutic use. Aastrom believes that the Aastrom cell culture chamber may also be used for growing other human therapeutic cells, such as T-Cells and dendritic cells used for immunotherapies, chondrocytes for cartilage replacement, and mesenchymal tissues for bone and cartilage replacement. Aastrom holds exclusive rights to issued U.S. patents and additional applications for its cell culture chamber device technology. See "--Additional Stem Cell and Other Cell Therapies."

Efficient Gene Transfer

Aastrom has developed proprietary processes and device technology that may enable increased efficiency of vector-mediated gene transfer into cells as compared to conventional procedures. This directed-motion gene transfer or gene loading technology is being pursued by Aastrom for application in most cell and tissue types and most vector technologies. Aastrom intends to develop products based upon its gene loading technology. Development of additional products, however, will require Aastrom to raise additional funds or to seek collaborative partners, or both, to finance related research and development activities, as to which there can be no assurance of success. Furthermore, due to the uncertainties involved, Aastrom is unable to estimate the length of time such development may take. If successfully developed into products, Aastrom believes that such products would facilitate the advancement of numerous gene therapy protocols into the clinic and ultimately the market. Aastrom has exclusive rights to issued U.S. patents, and has additional applications pending, for this technology. See "Aastrom Product Candidates For Ex Vivo Gene Therapy."

The AastromReplicell(TM) System

The AastromReplicell(TM) System is Aastrom's lead product under development. While potentially applicable to multiple cell therapy applications such as immunotherapy, solid tissue repair and ex vivo gene therapy, the AastromReplicell(TM) System is being developed initially by Aastrom for stem cell therapy. Market launch of the AastromReplicell(TM) System and the SC-I Therapy Kit for the production of bone-marrow derived stem cells and the CB-I Therapy Kit for the production of umbilical cord blood cells has begun in Europe. The AastromReplicell(TM) System is a proprietary system that Aastrom believes will enable the large scale ex vivo production of a variety of therapeutic cells at healthcare facilities, independent laboratories, transplant centers and blood banks, and has been designed to implement Aastrom's stem cell growth process as well as processes for the production of other cell types.

The AastromReplicell(TM) System is comprised of several components, including single-use therapy kits such as the SC-I and CB-I Therapy Kit, and microprocessor-controlled instruments. The single use therapy kits contain a cell cassette cartridge which contains the Aastrom cell culture chamber, supply and waste reservoirs and harvest bag, necessary growth

medium and supplements and process specific software which provides the cell production processing parameters to the AastromReplicell(TM) System instruments. The microprocessor-controlled instruments include the AastromReplicell(TM) System Incubator which controls the culture conditions for the operation of the AastromReplicell(TM) System Cell Cassette, and the Processor which automates the inoculation of cells into and harvesting of the cells from the AastromReplicell(TM) System Cell Cassette. The AastromReplicell(TM) System Manager is a user interface computer that is being developed to simultaneously track and monitor the cell production process in over thirty AastromReplicell(TM) System incubators and record relevant process variables and operator actions.

The AastromReplicell(TM) System is designed to be operated with minimal operator activity by a medical or laboratory technician and can implement clinical scale cell production at the patient care site. The end product of the AastromReplicell(TM) System process is a blood-bag container with the cell product. The control and documentation features of the AastromReplicell(TM) System have been designed to meet GMP requirements for the therapeutic production of cells.

AASTROMREPLICELL(TM) SYSTEM FOR STEM CELL THERAPY

Aastrom's initial application for the AastromReplicell(TM) System is in the field of stem cell therapy, where Aastrom believes that the AastromReplicell(TM) System addresses many of the limitations of existing procedures. The AastromReplicell(TM) System is based on a comparatively simple process in which a small volume of bone marrow cells are collected from the patient or donor using a needle aspiration procedure, typically under a local anesthetic or sedative. Alternatively, UCB cells have been shown to be a new source of cells for use in stem cell transplantation. The starting mixture of either bone marrow or UCB cells is quantified, and an appropriate volume of cells is then inoculated into one or more AastromReplicell(TM) Cell Cassettes with the necessary growth media. Using the AastromReplicell(TM) System, growth-factor-stimulated cells are produced in approximately 12 days, with no further patient involvement. Depending upon the cell quantity necessary for a therapeutic application, single or multiple AastromReplicell(TM) System Cell Cassettes may be required, with a different volume requirement of starting cells taken from the patient at the initial visit or obtained from the UCB bank. The AastromReplicell(TM) System has been designed to minimize operator involvement during the cell production process, and the steps required before and after the AastromReplicell(TM) System are standard laboratory procedures. Cells derived from UCB may also serve as a tumor-free source of stem and progenitor cells for expansion in the AastromReplicell(TM) System.

POTENTIAL ADVANTAGES OF AASTROMREPLICELL(TM) SYSTEM

The AastromReplicell(TM) System is designed to enable a cost-efficient and minimally invasive alternative, or supplement, to existing procedures, which could offer numerous advantages for both patients and medical staff:

The AastromReplicell(TM) System can generate larger quantities of cells from a small starting sample. Alternative procedures to obtain the large quantity of stem cells necessary for transplantation requires a patient to endure up to approximately 40 hours of procedure time or up to approximately 100 invasive needle sticks to obtain the necessary quantity of stem cells required for the transplant. The AastromReplicell(TM) System offers an alternative that requires less than two hours of procedure time and significantly fewer needle sticks.

The AastromReplicell(TM) System enables the production of certain cells, such as umbilical cord blood (UCB) cells, for which there might otherwise be insufficient quantities available for many transplants. Having access to a sufficient number of cells is essential to successful clinical outcomes. This is particularly the case with umbilical cord blood transplants. This source of stem cells is increasingly being used as an alternative to traditional stem cell transplant procedures. However, the limited quantities of available cells and difficulties in expanding the starting volumes to therapeutic quantities have restricted the widespread practice of UCB transplants. The AastromReplicell(TM) System is designed to solve this dilemma by providing the capability to easily and cost-effectively expand UCB cells to higher quantities for therapeutic treatments.

Pre-clinical tests have demonstrated tumor cell purging of certain cancer cells in the AastromReplicell(TM) System expansion process. Cancer patients with tumor metastases, in which the cancer has spread to the blood and bone marrow, have not traditionally been candidates for autologous stem cell transplants because such transplant might reintroduce cancer cells into the patient. Additionally, patients may have undetected tumor cells present in their marrow or PBSC transplant, which could re-establish cancer in the patient following transplant. Aastrom's initial pre-clinical results, as well as studies

conducted by third-party investigators, have shown that some primary human tumor cells die or do not grow during hematopoietic cell culture. The smaller volume of starting cells used for the AastromReplicell(TM) System compared with bone marrow harvest or PBSC transplants may provide approximately 10 to 70 fold less tumor cells in a transplant. Further, in an evaluation of 14 tumor-contaminated bone marrow samples that were expanded with the AastromReplicell(TM) System process, the presence of breast cancer cells in each sample was either substantially reduced or was no longer detectable. Further, tumor cells that were detectable after expansion in the AastromReplicell(TM) System showed a significant reduction in clonogenicity (the ability to replicate). Aastrom believes that this combination of passive depletion during culture with the lower starting volume of tumor cells may result in a tumor-free or tumor-reduced cell product for transplant. The clinical benefit of such tumor depletion, if any, will vary depending upon the type of cancer and state of disease.

Supplemental therapy with AastromReplicell(TM) System produced cells.

Collection of cells for transplant is a variable procedure requiring longer collection procedures for some patients compared to others. The AastromReplicell(TM) System offers a means to augment current collection techniques, thereby reducing variability and the overall collection burden for the patient and care provider.

The AastromReplicell(TM) System automates the process of growing human cells and is designed to be used directly in a hospital setting. Growing human cells has largely been a research laboratory process, requiring substantial time and technical expertise. The AastromReplicell(TM) System is designed to provide automated cell production capabilities directly at the patient care site in compliance with regulatory standards, providing process reliability and reducing the need for highly skilled operators.

CLINICAL DEVELOPMENT

The AastromReplicell(TM) System is an automated clinical system designed to be used by medical personnel at hospitals and patient care centers to produce therapeutic cells for the treatment of a broad range of diseases, including cancer, infectious diseases and the restoration of solid tissues.

The AastromReplicell(TM) System is designed as a family of products consisting of an instrumentation platform that operates single-use, patient-specific, therapy kits. Each therapy kit, which is specific to the desired cell or tissue type, is operated by the AastromReplicell(TM) System instrument platform, which automates the otherwise complex cell production processes. This instrument platform allows for on site cell manufacturing directly at the hospital, that is compliant with GMP's. The reagents, growth medium, cytokines, and process instructions contained within each therapy kit are procedure specific for the production of each cell type of therapy. This product design feature provides for a variety of therapy kits to be integrated into the AastromReplicell(TM) System product line.

The AastromReplicell(TM) System is being evaluated in multi-site clinical trials in the U.S. under Investigational Device Exemptions (IDE's) from the FDA. The initial goals of Aastrom's clinical trial program are to obtain a Pre-Market Approval (PMA) in the U.S., necessary to market the AastromReplicell(TM) System for autologous stem cell therapy and umbilical cord blood transplants, and to support European marketing activities.

Aastrom has conducted clinical trials in the U.S. evaluating stem cells produced in the AastromReplicell(TM) System from a small starting amount of bone marrow. Results from initial studies demonstrated the ability of the AastromReplicell(TM) System to safely and reliably produce stem and progenitor cells that engraft and restore blood and immune system function in cancer patients who had undergone very aggressive chemotherapy. Further, the small volume aspirate, along with a purging of contaminated tumor cells during the stem cell production has indicated a way to offer patients a transplant with a lower risk of receiving back tumor cells.

Aastrom is now conducting a randomized U.S. pivotal clinical trial evaluating the AastromReplicell(TM) System to compliment traditional therapies by augmenting stem cells collected from a single PBSC apheresis procedure. The objectives of this study are to demonstrate that an optimal targeted recovery can be achieved using the AastromReplicell(TM) System produced cells with a sub-optimal PBSC cell dose that otherwise would not provide this desired outcome. This procedure appears to improve the certainty of procedure outcome by providing a more reliable means of cell collection and patient recovery.

Aastrom has also conducted clinical feasibility trials to evaluate UCB cells produced in the AastromReplicell(TM) System to improve recoveries of pediatric and adult patients requiring donor derived (or allogeneic) stem cell transplants. Results of the pediatric transplants indicated that AastromReplicell(TM) System-produced cells were safe and well tolerated by the patients, and an improvement in 100-day post-transplant survival for the patients was observed. Based on the positive data, this Company has obtained permission from the FDA to conduct its pivotal clinical study in pediatric patients and expects to begin the trial soon. Results from Aastrom's adult cord blood trial suggested that the AastromReplicell(TM) System could increase the quantity of cord blood cells available and enable adult-sized patients to undergo transplant when they may not otherwise be UCB transplant candidates due to low cell dose availability. Pending regulatory approval, the Company plans to extend this trial into a pivotal phase as well. Several UCB banking institutions are now being established by other organizations. This banking infrastructure, together with the expansion capabilities of the AastromReplicell(TM) System, may lead to UCB as a promising new source of cells for therapeutic use.

The preliminary results of Aastrom's pre-pivotal trials may not be indicative of results that will be obtained from subsequent patients in the trials or from more extensive trials. Further, there can be no assurance that Aastrom's pre-pivotal or pivotal trials will be successful, or that PMA registration or required foreign regulatory approvals for the AastromReplicell(TM) System will be obtained in a timely fashion, or at all. See "Business Risks--Uncertainties Related to Clinical Trials."

ADDITIONAL STEM CELL AND OTHER CELL THERAPIES

Aastrom's development efforts have been focused on the development of the SC-I Therapy Kit for the production of bone marrow stem cells and the CB-I Therapy Kit for the production of cord blood cells. Aastrom believes that additional therapy kits may be developed for application to a variety of other emerging cell therapies in addition to stem cell therapy. The AastromReplicell(TM) System has the potential to supplant current manual cell culture methods to produce therapeutic quantities of cell types such as T-cells, dendritic cells, chondrocytes, mesenchymal cells, keratinocytes and neuronal cells. Other than a limited application of chondrocyte therapy, novel cell therapies are still in early stages of development by third parties, and no assurance can be given that such other cell therapies will be successfully developed. Potential advantages of the AastromReplicell(TM) System in these therapies may include: (i) reducing labor and capital costs; (ii) enhancing process reliability; (iii) automating quality assurance and process record keeping; (iv) reducing the need for specialized, environmentally controlled facilities; and (v) providing greater accessibility of these procedures to care providers and patients, and (vi) in certain cases, providing a more biologically active cell product.

Modification of such processes and application of Aastrom's products to the expansion of other cell types may require substantial additional development of specialized cell culture capabilities which may need to be incorporated within Aastrom's existing product platform. Such modifications may require Aastrom to raise substantial additional funds, or to seek additional collaborative partners, or both. There can be no assurance that Aastrom will be able to successfully modify or develop existing or future products to enable such additional cell production processes. Aastrom's business opportunity is dependent upon successful development and regulatory approval of these novel cell therapies. No assurance can be given that such novel therapies will be successfully developed by other companies or approved by applicable regulatory authorities, or that Aastrom's processes or product candidates will find successful application in such therapies. In addition, Aastrom may be required to obtain license rights to such technologies in order to develop or modify existing or future products for use in such therapies. No assurance can be given that Aastrom will be able to obtain such licenses or that such licenses, if available, could be obtained on commercially reasonable terms. See "--Clinical Development" and "Business Risks--Future Capital Needs; Uncertainty of Additional Funding."

IMMUNOTHERAPIES

Immunotherapy involves using cells of the immune system to eradicate a disease target. T-lymphocytes (T-cells) and dendritic cells are being actively investigated by others for this purpose, and Aastrom anticipates that many of these procedures will require ex vivo cell production.

T-cells, a class of lymphocyte white blood cells, play a critical role in the human immune system and are responsible for the human immune response in a broad spectrum of diseases, including cancers and infectious diseases. Therapeutic procedures using Cytotoxic T-lymphocytes ("CTLs") involve collecting T-cells from a patient and culturing them in an environment resulting in significantly increased numbers of T-cells with specificity for a particular disease target. Clinical trials by third parties have been initiated to demonstrate CTL effectiveness. The ex vivo production of these cells under conditions for use in medical treatment represents a critical step in the advancement of this therapy.

Dendritic cells (potent antigen presenting cells) are believed to play an important role in the function of the immune system. Researchers believe that cultured dendritic cells could augment the natural ability of a patient to present tumor antigens or antigens from infectious agents to the immune system and aid in the generation of a cytotoxic T-cell response to the offending agent.

SOLID TISSUE CELL THERAPIES

One of the newest areas of cell therapy involves the production of chondrocytes for the restoration of cartilage. Chondrocyte therapy involves the surgical removal of a small amount of tissue from the patient's knee and a therapeutic quantity of chondrocytes is produced from this surgical biopsy. The cells are then implanted into the patient's knee. Published reports indicate that such cells then reestablish mature articular cartilage. Currently, this cell production process is completed in highly specialized laboratory facilities using trained scientists and manual laboratory procedures. Aastrom believes that the AastromReplicell(TM) System may have the potential to reduce costs associated with the cell production procedure and, if successfully developed by Aastrom for this application, may eventually facilitate the transfer of the cell production capability away from specialized facilities directly to the clinical care sites.

OTHER STEM CELL THERAPY APPLICATIONS

Autoimmune Diseases. Stem cell therapy is under clinical investigation by third parties for the treatment of other diseases. Clinical studies have suggested a potential role for stem cell therapy in treatment of severe autoimmune diseases such as rheumatoid arthritis, multiple sclerosis and lupus erythematosus. The generic cause of these diseases is a malfunctioning immune system, including T-lymphocytes. Clinical trials in which the patient receives treatment resulting in immune ablation (usually involving myelotoxic cancer drugs or radiation), followed by stem cell therapy to restore the bone marrow and cells of the blood and immune system, have demonstrated remission of the autoimmune disease in some patients.

Organ Transplantation. Recently, a number of academic and corporate researchers and companies have identified the potential use of stem cell therapy to facilitate successful solid organ and tissue transplants between human donors and recipients, as well as using organs from non-human species for transplantation into humans. These proposed applications are based on the observation that donor-specific bone marrow, infused concurrent with or prior to the organ transplant, can provide for reduction of the normal immune rejection response by the transplant recipient (e.g. heart, lung, liver and kidney transplants).

A major limitation to the use of stem cell therapy in solid organ transplant is the limited availability of sufficient amounts of bone marrow to obtain a desired therapeutic response of immune tolerization. This limitation is particularly problematic when cadaveric donor organs are used, which has traditionally been the source of organs for these procedures. Bone marrow is also often available from the cadaveric donor, but only in a limited amount. Normally this amount may be sufficient for one transplant, but a donor might provide multiple organs for transplant into multiple recipients. Aastrom believes that the ability to expand the available bone marrow ex vivo will enhance the use of stem cell therapy for such transplant procedures and may pursue development of its products for application in such therapy in the future.

Degenerative Diseases. Bone marrow stromal cells may also contribute to the repair of degenerative bone diseases such as osteoporosis. Aastrom has completed pre-clinical work in this area and is evaluating a clinical feasibility trial for use of the AastromReplicell(TM) System and the SC-I Therapy Kit to produce cells to treat osteoporosis.

AASTROM PRODUCT CANDIDATES FOR EX VIVO GENE THERAPY

A novel form of cell therapy is ex vivo gene therapy. For this type of cell therapy, cells collected from the patient or a donor are genetically modified prior to their infusion into the patient. Analogous to other cell therapies, the ability to produce a therapeutic dose of these gene-modified cells is a major limitation to the commercialization of these cell therapies. This limitation is further exacerbated by the additional requirement that the cells be genetically modified under conditions that are sterile and comply with GMP.

Gene therapy is a therapeutic modality that holds the potential to significantly impact the delivery of healthcare and the delivery of therapeutically useful protein-based drugs within the body. Gene therapies are generally targeted at the introduction of a missing normal gene into otherwise defective human tissue, or the introduction of novel biologic capability into the body via the introduction of a gene not ordinarily present (for example, genes providing for the enhanced recognition and destruction or inhibition of the HIV-1 virus). The major developmental focus of the ex vivo gene therapy industry has been to identify the therapeutic gene of interest, insert it into a suitable vector that can be used to transport and integrate the gene into the DNA of the target cell, and then cause the gene to become expressed. Aastrom believes that for ex vivo gene therapy to progress to clinical applications, a process to produce a sufficient quantity of therapeutic cells is required for many such therapies as is an efficient means to insert the gene vector into target cells. Gene therapy is still in an early stage of development by third parties. Aastrom's business opportunity is dependent upon the successful development and regulatory approval of individual gene therapy applications. No assurance can be given that such applications will be developed or approved or that Aastrom's processes or product candidates will find successful applications in such therapies. Successful development of Aastrom's processes and product candidates for application in ex vivo gene therapy will require substantial additional research and development, including clinical testing, and will be subject to Aastrom's ability to finance such activities on acceptable terms, if at all. See "Business Risks--Future Capital Needs; Uncertainty of Additional Funding."

THE AASTROMREPLICELL(TM) SYSTEM FOR GENE THERAPY

The AastromReplicell(TM) System has been designed to produce cells for therapy and Aastrom believes that the AastromReplicell(TM) System may be useful in many potential ex vivo gene therapy applications. Further, Aastrom anticipates that its proprietary stem cell production process technology implemented by the AastromReplicell(TM) System may provide the conditions for clinical scale stem cell division, and enable or enhance the introduction of therapeutic genes into stem cell DNA. Aastrom believes that its technology may also enable expansion of more mature progeny of these stem cells to create a gene therapy cell product with potential short and long term therapeutic effect.

Aastrom has two principal objectives for the development of AastromReplicell(TM) System for gene therapy: (i) the enablement of stem cell gene therapies for a variety of hematologic and other disorders, based on the AastromReplicell(TM) System's ability to enable large scale stem cell division ex vivo; and (ii) the enablement of gene transfer and therapeutic cell production by local and regional primary patient care facilities and ancillary service laboratories.

THE AASTROM(TM) GENE LOADER

The Aastrom(TM) Gene Loader process technology, which is under development, is being designed to enhance the efficiency and reliability of the transfer of new therapeutic genes, which are carried by vectors, into the target cell. This process, which is typically inefficient in many human cells, inhibits many ex vivo gene therapies from moving forward in the clinic. The Aastrom(TM) Gene Loader is being designed to incorporate Aastrom's proprietary directed motion gene transfer technology. Complete product development is expected to require additional funding sources or collaborations with others, or both.

Aastrom believes that these issues represent a general bottleneck for other companies pursuing clinical ex vivo gene therapy applications. Aastrom's technology under development may favorably influence these gene therapy applications, the development of which are impeded due to low transduction efficiencies and the resultant need for use of large quantities of gene vectors and/or target "delivery" tissues.

MANUFACTURING

Aastrom has established relationships with third party manufacturers which are FDA registered as suppliers for the manufacture of medical products to manufacture various components of the AastromReplicell(TM) System.

In May 1994, Aastrom entered into a Collaborative Product Development Agreement with SeaMED Corporation, ("SeaMED"). Pursuant to this agreement, Aastrom and SeaMED collaborated on the design of certain instrument components in the AastromReplicell(TM) System. SeaMED also manufactured pre-production units of the instrument components for laboratory and clinical evaluation. Aastrom paid SeaMED for its design and pre-production work on a time and materials basis. In April 1998 Aastrom entered into a manufacturing agreement with SeaMED for the commercial manufacturing of the instrument components of the AastromReplicell(TM) System pursuant to a pricing formula set forth in the agreement. The initial term of the manufacturing agreement is until April 2001, after which the agreement is automatically renewed until terminated upon a 24-month notice from SeaMED or a 6-month notice from Aastrom. Aastrom retains all proprietary rights to its intellectual property which is utilized by SeaMED pursuant to this agreement. During the initial term of the manufacturing agreement, SeaMED is regarded as Aastrom's preferred supplier and Aastrom will purchase a minimum of 65% of its instrument requirements for the AastromReplicell(TM) System.

In November 1994, Aastrom entered into a Collaborative Product Development Agreement with Ethox Corporation ("Ethox"). Pursuant to this agreement, Aastrom and Ethox collaborated on the design of certain bioreactor assembly and custom tubing kit components of the AastromReplicell(TM) System. Aastrom is paying Ethox for its design and production work on a time and materials basis, utilizing Ethox's customary hourly billing rates and actual costs for materials. Aastrom retains all proprietary rights to its intellectual property which are utilized by Ethox pursuant to this agreement.

In March 1996, Aastrom entered into a License and Supply Agreement with Immunex Corporation ("Immunex") for an initial five year term to purchase and resell certain cytokines and ancillary materials for use in conjunction with the AastromReplicell(TM) System. The agreement required Aastrom to pay Immunex an initial up-front fee of $1,500,000 to be followed by subsequent annual renewal payments equal to $1,000,000 per year during the initial term of the agreement in addition to payment for supplies purchased by Aastrom. In August 1997, Aastrom and Immunex amended the agreement to expand Aastrom's territorial rights to use and sell such materials to a worldwide basis. Unless earlier terminated or renewed by Aastrom for an additional five-year term, the agreement will expire in April 2001. Pursuant to agreements between Immunex and Aastrom, the annual fees due in March 1998 and 1999 were each paid by Aastrom through the issuance of $1,100,000 in Aastrom's Common Stock. A similar agreement has been made for the renewal payment due in March 2000. The supply agreement may be terminated by either party effective immediately upon written notice of termination to the other party in the event that such party materially breaches the agreement and such breach continues unremedied after notice and expiration of a specified cure period or in the event that a bankruptcy proceeding is commenced against a party and is not dismissed or stayed within a 45-day period. In addition, Immunex has the right to cease the supply to Aastrom of cytokines and ancillary materials if Aastrom fails to purchase a minimum amount of its forecasted annual needs from Immunex after notice to Aastrom and expiration of a specified cure period. Aastrom also has the right to terminate the agreement at any time subject to the payment to Immunex of a specified amount for liquidated damages. In the event that Immunex elects to cease to supply to Aastrom cytokines and ancillary materials or is prevented from supplying such materials to Aastrom by reason of force majeure, limited manufacturing rights will be transferred to Aastrom under certain circumstances. There is, however, no assurance that Aastrom could successfully manufacture the compounds itself or identify others that could manufacture these compounds to acceptable quality standards and costs, if at all.

In December 1996, Aastrom entered into a Collaborative Supply Agreement with Anchor Advanced Products, Inc., Mid-State Plastics Division ("MSP"). Under this agreement, MSP conducted both pre-production manufacturing development and now commercial manufacturing and assembly of the Cell Cassette component of the AastromReplicell(TM) System for Aastrom. MSP is paid by Aastrom on a per unit basis for Cell Cassettes delivered to Aastrom under a pricing formula specified in the agreement. Throughout the term of this agreement, Aastrom has agreed to treat MSP as its preferred supplier of Cell Cassettes, using MSP as its supplier of at least 60% of its requirements for Cell Cassettes.

There can be no assurance that Aastrom will be able to continue its present arrangements with its suppliers, supplement existing relationships or establish new relationships or that Aastrom will be able to identify and obtain the ancillary materials that are necessary to develop its product candidates in the future. Aastrom's dependence upon third parties for the supply and manufacture of such items could adversely affect Aastrom's ability to develop and deliver commercially feasible products on

a timely and competitive basis. See "Business Risks--Manufacturing and Supply Uncertainties; Dependence on Third Parties."

PATENTS AND PROPRIETARY RIGHTS

Aastrom's success depends in part on its ability, and the ability of its licensors, to obtain patent protection for its products and processes. Aastrom has exclusive rights to 18 issued U.S. patents, and non-exclusive rights to one issued U.S. patent. These patents present claims to (i) certain methods for ex vivo stem cell division as well as ex vivo human hematopoietic stem cell stable genetic transformation and expanding and harvesting a human hematopoietic stem cell pool; (ii) certain apparatus for cell culturing, including a bioreactor suitable for culturing human stem cells or human hematopoietic cells; (iii) certain methods of infecting or transfecting target cells with vectors; and (iv) a cell composition containing human stem cells or progenitor cells, or genetically modified stem cells, when such cells are produced in an ex vivo medium exchange culture. Certain patent equivalents to the U.S. patents have also been issued in other jurisdictions including Australia, Canada and under the European Patent Convention. These patents are due to expire beginning in 2006. In addition, Aastrom and its exclusive licensors have filed applications for patents in the United States and equivalent applications in certain other countries claiming other aspects of Aastrom's products and processes, including a number of U.S. patent applications and corresponding applications in other countries related to various components of the AastromReplicell(TM) System.

The validity and breadth of claims in medical technology patents involve complex legal and factual questions and, therefore, may be highly uncertain. No assurance can be given that any patents based on pending patent applications or any future patent applications of Aastrom or its licensors will be issued, that the scope of any patent protection will exclude competitors or provide competitive advantages to Aastrom, that any of the patents that have been or may be issued to Aastrom or its licensors will be held valid if subsequently challenged or that others will not claim rights in or ownership of the patents and other proprietary rights held or licensed by Aastrom. Furthermore, there can be no assurance that others have not developed or will not develop similar products, duplicate any of Aastrom's products or design around any patents that have been or may be issued to Aastrom or its licensors. Since patent applications in the United States are maintained in secrecy until patents issue, Aastrom also cannot be certain that others did not first file applications for inventions covered by Aastrom's and its licensors' pending patent applications, nor can Aastrom be certain that it will not infringe any patents that may issue to others on such applications.

Aastrom relies on certain licenses granted by the University of Michigan and others for certain patent rights. If Aastrom breaches such agreements or otherwise fails to comply with such agreements, or if such agreements expire or are otherwise terminated, Aastrom may lose its rights in such patents, which would have a material adverse effect on Aastrom's business, financial condition and results of operations. See "--Research and License Agreements."

Aastrom also relies on trade secrets and unpatentable know-how that it seeks to protect, in part, by confidentiality agreements. It is Aastrom's policy to require its employees, consultants, contractors, manufacturers, outside scientific collaborators and sponsored researchers, and other advisors to execute confidentiality agreements upon the commencement of employment or consulting relationships with Aastrom. These agreements provide that all confidential information developed or made known to the individual during the course of the individual's relationship with Aastrom is to be kept confidential and not disclosed to third parties except in specific limited circumstances. Aastrom also requires signed confidentiality or material transfer agreements from any company that is to receive its confidential information. In the case of employees, consultants and contractors, the agreements generally provide that all inventions conceived by the individual while rendering services to Aastrom shall be assigned to Aastrom as the exclusive property of Aastrom. There can be no assurance, however, that these agreements will not be breached, that Aastrom would have adequate remedies for any breach, or that Aastrom's trade secrets or unpatentable know-how will not otherwise become known or be independently developed by competitors.

Aastrom's success will also depend in part on its ability to develop commercially viable products without infringing the proprietary rights of others. Aastrom has not conducted freedom of use patent searches and no assurance can be given that patents do not exist or could not be filed which would have an adverse effect on Aastrom's ability to market its products or maintain its competitive position with respect to its products. If Aastrom's technology components, devices, designs, products, processes or other subject matter are claimed under other existing United States or foreign patents or are otherwise

protected by third party proprietary rights, Aastrom may be subject to infringement actions. In such event, Aastrom may challenge the validity of such patents or other proprietary rights or be required to obtain licenses from such companies in order to develop, manufacture or market its products. There can be no assurances that Aastrom would be able to obtain such licenses or that such licenses, if available, could be obtained on commercially reasonable terms. Furthermore, the failure to either develop a commercially viable alternative or obtain such licenses could result in delays in marketing Aastrom's proposed products or the inability to proceed with the development, manufacture or sale of products requiring such licenses, which could have a material adverse effect on Aastrom's business, financial condition and results of operations. If Aastrom is required to defend itself against charges of patent infringement or to protect its own proprietary rights against third parties, substantial costs will be incurred regardless of whether Aastrom is successful. Such proceedings are typically protracted with no certainty of success. An adverse outcome could subject Aastrom to significant liabilities to third parties and force Aastrom to curtail or cease its development and sale of its products and processes.

Certain of Aastrom's and its licensors' research has been or is being funded in part by the Department of Commerce and by a Small Business Innovation Research Grant obtained from the Department of Health and Human Services. As a result of such funding, the U.S. Government has certain rights in the technology developed with the funding. These rights include a non-exclusive, paid-up, worldwide license under such inventions for any governmental purpose. In addition, the government has the right to require Aastrom to grant an exclusive license under any of such inventions to a third party if the government determines that (i) adequate steps have not been taken to commercialize such inventions, (ii) such action is necessary to meet public health or safety needs or (iii) such action is necessary to meet requirements for public use under federal regulations. Additionally, under the federal Bayh Dole Act, a party which acquires an exclusive license for an invention that was partially funded by a federal research grant is subject to the following government rights: (i) products using the invention which are sold in the United States are to be manufactured substantially in the United States, unless a waiver is obtained; (ii) if the licensee does not pursue reasonable commercialization of a needed product using the invention, the government may force the granting of a license to a third party who will make and sell the needed product; and (iii) the U.S. Government may use the invention for its own needs.

RESEARCH AND LICENSE AGREEMENTS

In March 1992, Aastrom and the University of Michigan entered into a License Agreement, as contemplated by a Research Agreement executed in August 1989 relating to the ex vivo production of human cells. There have been clarifying amendments to the License Agreement, in March 1992, October 1993 and June 1995. Pursuant to this License Agreement, (i) Aastrom acquired exclusive worldwide license rights to the patents and know-how for the production of blood cells and bone marrow cells as described in the University of Michigan's research project or which resulted from certain further research conducted through December 1994, and (ii) Aastrom is obligated to pay to the University of Michigan a royalty equal to 2% of the net sales of products which are covered by the University of Michigan's patents. Unless it is terminated earlier at Aastrom's option or due to a material breach by Aastrom, the License Agreement will continue in effect until the latest expiration date of the patents to which the License Agreement applies.

Aastrom has also entered into a License Agreement with Joseph G. Cremonese which grants to Aastrom non-exclusive worldwide license rights for all fields of use, to utilize U.S. Patent No. 4,839,292, entitled "Cell Culture Flask Utilizing a Membrane Barrier," which patent was issued to Dr. Cremonese on June 13, 1989, and to utilize any other related patents that might be issued to Dr. Cremonese. Under the terms of the License Agreement, Aastrom is to pay to Dr. Cremonese a royalty of up to 3% of net product sales, to the extent such products are covered by the patent. Unless earlier terminated or modified, the License Agreement will continue in effect until the latest expiration date of the patents to which the License Agreement applies, which latest expiration date is currently August 2009.

GOVERNMENT REGULATION

Aastrom's research and development activities and the manufacturing and marketing of Aastrom's products are subject to the laws and regulations of governmental authorities in the United States and other countries in which its products will be marketed. Specifically, in the United States, the FDA, among other activities, regulates new product approvals to establish safety and efficacy of these products. Governments in other countries have similar requirements for testing and marketing. In the United States, in addition to meeting FDA regulations, Aastrom is also subject to other federal laws, such as the Occupational Safety and Health Act and the Environmental Protection Act, as well as certain state laws.

REGULATORY PROCESS IN THE UNITED STATES

To Aastrom's knowledge, it is the first to develop a cell culture system for ex vivo human cell production to be sold for therapeutic applications. Therefore, to a certain degree, the manner in which the FDA will regulate Aastrom's products is uncertain.

Aastrom's products are potentially subject to regulation as medical devices under the Federal Food, Drug, and Cosmetic Act, and as biological products under the Public Health Service Act, or both. Different regulatory requirements may apply to Aastrom's products depending on how they are categorized by the FDA under these laws. To date, the FDA has indicated that it intends to regulate the AastromReplicell(TM) System as a Class III medical device through the Center for Biologics Evaluation and Research. However, there can be no assurance that FDA will ultimately regulate the AastromReplicell(TM) System as a medical device.

Further, it is unclear whether the FDA will separately regulate the cell therapies derived from the AastromReplicell(TM) System. The FDA is still in the process of developing its requirements with respect to somatic cell therapy and gene cell therapy products and has recently issued draft documents concerning the regulation of umbilical cord blood stem cell products, as well as cellular and tissue-based products. If the FDA adopts the regulatory approach set forth in the draft document, the FDA may require separate regulatory approval for such cells in some cases, called a biologic license application ("BLA"). This proposal may indicate that the FDA will extend a similar approval requirement to other types of cellular therapies. Any such additional regulatory or approval requirements could have a material adverse impact on Aastrom.

Approval of new medical devices and biological products is a lengthy procedure leading from development of a new product through preclinical and clinical testing. This process takes a number of years and the expenditure of significant resources. There can be no assurance that Aastrom's product candidates will ultimately receive regulatory approval.

Regardless of how Aastrom's product candidates are regulated, the Federal Food, Drug, and Cosmetic Act and other Federal statutes and regulations govern or influence the research, testing, manufacture, safety, labeling, storage, recordkeeping, approval, distribution, use, reporting, advertising and promotion of such products. Noncompliance with applicable requirements can result in civil penalties, recall, injunction or seizure of products, refusal of the government to approve or clear product approval applications or to allow Aastrom to enter into government supply contracts, withdrawal of previously approved applications and criminal prosecution.

DEVICES

In order to obtain FDA approval of a new medical device, sponsors must generally submit proof of safety and efficacy. In some cases, such proof entails extensive preclinical and clinical laboratory tests. The testing, preparation of necessary applications and processing of those applications by the FDA is expensive and may take several years to complete. There can be no assurance that the FDA will act favorably or in a timely manner in reviewing submitted applications, and Aastrom may encounter significant difficulties or costs in its efforts to obtain FDA approvals which could delay or preclude Aastrom from marketing any products it may develop. The FDA may also require post marketing testing and surveillance of approved products, or place other conditions on the approvals. These requirements could cause it to be more difficult or expensive to sell the products, and could therefore restrict the commercial applications of such products. Product approvals may be withdrawn if compliance with regulatory standards is not maintained or if problems occur following initial marketing. For patented technologies, delays imposed by the governmental approval process may materially reduce the period during which Aastrom will have the exclusive right to exploit such technologies.

If human clinical trials of a proposed device are required and the device presents significant risk, the manufacturer or distributor of the device will have to file an IDE submission with the FDA prior to commencing human clinical trials. The IDE submission must be supported by data, typically including the results of pre-clinical and laboratory testing. Following submission of the IDE, the FDA has 30 days to review the application and raise safety and other clinical trial issues. If Aastrom is not notified of objections within that period, clinical trials may be initiated, and human clinical trials may commence at a specified number of investigational sites with the number of patients approved by the FDA.

The FDA categorizes devices into three regulatory classifications subject to varying degrees of regulatory control. In general, Class I devices require compliance with labeling and record keeping regulations, Quality System Regulation ("QSR"), 510(k) pre-market notification, and are subject to other general controls. Class II devices may be subject to additional regulatory controls, including performance standards and other special controls, such as post market surveillance. Class III devices, which are either invasive or life-sustaining products, or new products never before marketed (for example, non-"substantially equivalent" devices), require clinical testing to demonstrate safety and effectiveness and FDA approval prior to marketing and distribution. The FDA also has the authority to require clinical testing of Class I and Class II devices.

If a manufacturer or distributor of medical devices cannot establish that a proposed device is substantially equivalent, the manufacturer or distributor must submit a PMA application to the FDA. A PMA application must be supported by extensive data, including preclinical and human clinical trial data, to prove the safety and efficacy of the device. Upon receipt, the FDA conducts a preliminary review of the PMA application. If sufficiently complete, the submission is declared filed by the FDA. By regulation, the FDA has 180 days to review a PMA application once it is filed, although PMA application reviews more often occur over a significantly protracted time period, and may take approximately one year or more from the date of filing to complete.

Some of Aastrom's products may be classified as Class II or Class III medical devices. Aastrom has submitted several IDEs for the AastromReplicell(TM) System, and is currently conducting pre-pivotal clinical studies under these IDEs. Aastrom believes that the AastromReplicell(TM) System product will be regulated by the FDA as a Class III device, although there can be no assurance that the FDA will not choose to regulate this product in a different manner.

Aastrom and any contract manufacturer are required to be registered as a medical device manufacturer with the FDA. As such, they will be inspected on a routine basis by the FDA for compliance with the FDA's QSR regulations. These regulations will require that Aastrom and any contract manufacturer, design, manufacture and service products and maintain documents in a prescribed manner with respect to manufacturing, testing, distribution, storage, design control and service activities. The Medical Device Reporting regulation requires that Aastrom provide information to the FDA on deaths or serious injuries alleged to be associated with the use of its devices, as well as product malfunctions that are likely to cause or contribute to death or serious injury if the malfunction were to recur. In addition, the FDA prohibits a company from promoting an approved device for unapproved applications and reviews company labeling for accuracy.

BIOLOGICAL PRODUCTS

For certain of Aastrom's new products which may be regulated as biologics, the FDA requires (i) preclinical laboratory and animal testing, (ii) submission to the FDA of an investigational new drug ("IND") application which must be effective prior to the initiation of human clinical studies, (iii) adequate and well-controlled clinical trials to establish the safety and efficacy of the product for its intended use, (iv) submission to the FDA of a biologic license application ("BLA") and (v) review and approval of the BLA as well as inspections of the manufacturing facility by the FDA prior to commercial marketing of the product.

Preclinical testing covers laboratory evaluation of product chemistry and formulation as well as animal studies to assess the safety and efficacy of the product. The results of these tests are submitted to the FDA as part of the IND. Following the submission of an IND, the FDA has 30 days to review the application and raise safety and other clinical trial issues. If Aastrom is not notified of objections within that period, clinical trials may be initiated. Clinical trials are typically conducted in three sequential phases. Phase I represents the initial administration of the drug or biologic to a small group of humans, either healthy volunteers or patients, to test for safety and other relevant factors. Phase II involves studies in a small number of patients to assess the efficacy of the product, to ascertain dose tolerance and the optimal dose range and to gather additional data relating to safety and potential adverse effects. Once an investigational drug is found to have some efficacy and an acceptable safety profile in the targeted patient population, multi-center Phase III studies are initiated to establish safety and efficacy in an expanded patient population and multiple clinical study sites. The FDA reviews both the clinical plans and the results of the trials and may request Aastrom to discontinue the trials at any time if there are significant safety issues.

The results of the preclinical tests and clinical trials are submitted to the FDA in the form of a BLA for marketing approval. The testing and approval process is likely to require substantial time and effort and there can be no assurance that any approval will be granted on a timely basis, if at all. Additional animal studies or clinical trials may be requested during the FDA review period that may delay marketing approval. After FDA approval for the initial indications, further clinical trials may be necessary to gain approval for the use of the product for additional indications. The FDA requires that adverse effects be reported to the FDA and may also require post-marketing testing to monitor for adverse effects, which can involve significant expense.

Under current requirements, facilities manufacturing biological products must be licensed. To accomplish this, an BLA must be filed with the FDA. The BLA describes the facilities, equipment and personnel involved in the manufacturing process. An establishment license is granted on the basis of inspections of the applicant's facilities in which the primary focus is on compliance with GMP's and the ability to consistently manufacture the product in the facility in accordance with the BLA. If the FDA finds the inspection unsatisfactory, it may decline to approve the BLA, resulting in a delay in production of products.

As part of the approval process for human biological products, each manufacturing facility must be registered and inspected by FDA prior to marketing approval. In addition, state agency inspections and approvals may also be required for a biological product to be shipped out of state.

REGULATORY PROCESS IN EUROPE

The AastromReplicell(TM) instruments and disposables, are currently being regulated in Europe as a Class I Sterile or Class IIb medical device, under the authority of the new Medical Device Directives ("MDD") being implemented by European Union ("EU") member countries. This classification applies to medical laboratory equipment and supplies including, among other products, many devices that are used for the collection and processing of blood for patient therapy. Certain ancillary products (e.g., biological reagents) used as part of the AastromReplicell(TM) System are expected to be considered Class III medical devices.

The MDD regulations vest the authority to permit affixing of the "CE Mark" with various Notified Bodies. These are private and state organizations which operate under license from the member states of the EU to certify that appropriate quality assurance standards and compliance procedures are followed by developers and manufacturers of medical device products or, alternatively, that a manufactured medical product meets a more limited set of requirements. Notified Bodies are also charged with responsibility for determination of the appropriate standards to apply to a medical product. Receipt of permission to affix the CE Mark enables a company to sell a medical device in all EU member countries. Other registration requirements may also need to be satisfied in certain countries.

During 1999, the Company received permission from its Notified Body (The British Standards Institute) to affix the CE Mark to the AastromReplicell(TM) instrumentation and components for the SC-I Therapy Kit and CB-I Therapy Kit. This has allowed Aastrom to market these products in the European Union. There can be no assurance that the AastromReplicell(TM) System will continue to be regulated under it current status, any change in which would affect the Company's ability to sell the product and adversely affect the Company's business, financial condition and results of operations.

COMPETITION

The biotechnology and medical device industries are characterized by rapidly evolving technology and intense competition. Aastrom's competitors include major pharmaceutical, medical device, medical products, chemical and specialized biotechnology companies, many of which have financial, technical and marketing resources significantly greater than those of Aastrom. In addition, many biotechnology companies have formed collaborations with large, established companies to support research, development and commercialization of products that may be competitive with those of Aastrom. Academic institutions, governmental agencies and other public and private research organizations are also conducting research activities and seeking patent protection and may commercialize products on their own or through joint ventures. Aastrom's product development efforts are primarily directed toward obtaining regulatory approval to market the AastromReplicell(TM) System for stem cell therapy. That market is currently dominated by the bone marrow harvest and PBSC

collection methods. Aastrom's clinical data, although early, suggests that cells expanded in the AastromReplicell(TM) System using its current process will enable hematopoietic recovery within the time frames currently achieved by bone marrow harvest, however, neutrophil and platelet recovery times may be slower than with PBSC collection methods. In recognition of this, Aastrom has begun clinical testing of a procedure that utilizes a combination of PBSC's collected in a single blood apheresis procedure with cells produced in the AastromReplicell(TM) System. The objectives of this study are to demonstrate that an optimal targeted recovery can be achieved using AastromReplicell(TM) System-produced cells with a sub-optimal PBSC cell dose that otherwise would not provide this desired outcome. Aastrom is also evaluating techniques and methods to optimize the cells produced in the AastromReplicell(TM) System to reduce the recovery time of neutrophils and platelets in patients. There can be no assurance that if such procedure optimization does not lead to recovery times equal to or faster than those of PBSC collection methods, such outcome would not have a material adverse effect on Aastrom's business, financial condition and results of operations. In addition, the bone marrow harvest and PBSC collection methods have been widely practiced for a number of years and, recently, the patient costs associated with these procedures have begun to decline. There can be no assurance that the AastromReplicell(TM) System method, if approved for marketing, will prove to be competitive with these established collection methods on the basis of hematopoietic recovery time, cost or otherwise. Aastrom is aware of certain other products manufactured or under development by competitors that are used for the prevention or treatment of certain diseases and health conditions which Aastrom has targeted for product development. There can be no assurance that developments by others will not render Aastrom's product candidates or technologies obsolete or noncompetitive, that Aastrom will be able to keep pace with new technological developments or that Aastrom's product candidates will be able to supplant established products and methodologies in the therapeutic areas that are targeted by Aastrom. The foregoing factors could have a material adverse effect on Aastrom's business, financial condition and results of operations.

Aastrom's products under development are expected to address a broad range of existing and new markets. Aastrom believes that its stem cell therapy products will, in large part, face competition by existing procedures rather than novel new products. Aastrom's competition will be determined in part by the potential indications for which Aastrom's products are developed and ultimately approved by regulatory authorities. In addition, the first product to reach the market in a therapeutic or preventive area is often at a significant competitive advantage relative to later entrants to the market. Accordingly, the relative speed with which Aastrom or its corporate partners can develop products, complete the clinical trials and approval processes and supply commercial quantities of the products to the market are expected to be important competitive factors. Aastrom's competitive position will also depend on its ability to attract and retain qualified scientific and other personnel, develop effective proprietary products, develop and implement production and marketing plans, obtain and maintain patent protection and secure adequate capital resources. Aastrom expects its products, if approved for sale, to compete primarily on the basis of product efficacy, safety, patient convenience, reliability, value and patent position.

EMPLOYEES

As of August 31, 1999, Aastrom employed approximately 56 individuals on a full time equivalent basis. A significant number of Aastrom's management and professional employees have had prior experience with pharmaceutical, biotechnology or medical product companies. None of Aastrom's employees are covered by collective bargaining agreements, and management considers relations with its employees to be good.

EXECUTIVE OFFICERS OF AASTROM

The executive officers of Aastrom, and their respective ages as of August 31, 1999, are as follows:

Name	AGE	POSITION
R. Douglas Armstrong, Ph.D.	46	President and Chief Executive Officer
William L. Odell	41	Senior Vice President Product Operations
Todd E. Simpson	38	Vice President Finance & Administration, Chief Financial Officer, Secretary and Treasurer
Bruce W. Husel	41	Vice President Quality Systems and Regulatory Affairs
Alan K. Smith, Ph.D.	44	Vice President Research

R. Douglas Armstrong, Ph.D. joined Aastrom in June 1991 as a director and as its President and Chief Executive Officer. From 1987 to 1991, Dr. Armstrong served in different capacities, including as Executive Vice President and a Trustee of the La Jolla Cancer Research Foundation ("LJCRF") (now the Burham Institute), a scientific research institute located in San Diego, California. Dr. Armstrong received his doctorate in Pharmacology and Toxicology from the Medical College of Virginia, and has held faculty and staff positions at Yale University, University of California, San Francisco, LJCRF and University of Michigan. Dr. Armstrong also serves on the Board of Directors of Nephros Therapeutics, Inc.

William L. Odell joined Aastrom in August 1998 as Senior Vice President, Product Operations. Prior to joining Aastrom, Mr. Odell was a Vice President at Mitchell International, a healthcare consulting firm. Prior to that, Mr. Odell served at Owens & Minor, Inc. as Division Vice President, where he was responsible for managing sales, marketing, operations and customer service for the Chicago division. Mr. Odell has also held senior marketing and product development positions with Smiths Industries Medical Systems, Intertech Resources and Baxter International. Mr. Odell received his Bachelor of Science degree in Business Administration from the University of Illinois at Champaign/Urbana.

Todd E. Simpson joined Aastrom in January 1996 as Vice President, Finance and Administration and Chief Financial Officer and is also Aastrom's Secretary and Treasurer. Prior to that, Mr. Simpson was Treasurer of Integra LifeSciences Corporation ("Integra"), a biotechnology company, which acquired Telios Pharmaceuticals, Inc. ("Telios") in August 1995 in connection with the reorganization of Telios under Chapter 11 of the U.S. Bankruptcy Code. Mr. Simpson served as Vice President of Finance and Chief Financial Officer of Telios up until its acquisition by Integra and held various other financial positions at Telios after joining that company in February 1992. Telios was a publicly-held company engaged in the development of pharmaceutical products for the treatment of dermal and ophthalmic wounds, fibrotic disease, vascular disease, and osteoporosis. From August 1983 through February 1992, Mr. Simpson practiced public accounting with the firm of Ernst & Young, LLP. Mr. Simpson is a Certified Public Accountant and received his B.S. degree in Accounting and Computer Science from Oregon State University.

Bruce W. Husel joined Aastrom in November 1997 as Vice President, Quality Systems. From May 1994 to September 1997, Mr. Husel served as Director of Quality Assurance for Sanofi Diagnostics Pasteur, where he led efforts to achieve EN 46001 registration and prepare for CE Marking. From June 1992 to May 1994, Mr. Husel was Director of Quality and Regulatory Affairs for Baxter Anesthesia Division (formerly known as Bard MedSystems). Prior to that, he served as Quality Manager of McGaw, Inc. Mr. Husel received his B.B. degree in Electrical Engineering from Rice University in 1980, an M.S degree in Engineering Management from Southern Methodist University in 1986 and an M.B.A. degree in Accounting from the University of Texas at Dallas in 1987.

Alan K. Smith, Ph.D. joined Aastrom in November 1995 as Vice President, Research. Previously, Dr. Smith was Vice President of Research and Development at Geneic Sciences, Inc., a developmental stage bone marrow transplantation company. Prior to that, Dr. Smith held the position of Director, Cell Separations Research and Development of the Immunotherapy Division of Baxter Healthcare Corporation. In that capacity, he was responsible for the research and development activities for a stem cell concentration system approved for clinical use in the U.S., Europe and a number of other countries. Dr. Smith has also held positions as Research and Development Manager at BioSpecific Technologies, and as Director of Biochemistry at HyClone Laboratories. Dr. Smith received his B.S. degree in Chemistry from Southern Utah State College in 1976 and a Ph.D. in Biochemistry from Utah State University in 1983. Dr. Smith is a director of Chata Biosystems, Inc., a privately held pharmaceutical service company.

ITEM 2. PROPERTIES

Aastrom leases approximately 22,000 square feet of office and research and development space in Ann Arbor, Michigan under a lease agreement expiring in August 2000. The Lease is renewable at the option of Aastrom for up to an additional five year term. Aastrom believes that its facilities are adequate for its current needs. However, additional facilities may be required to support expansion for research and development abilities or to assume manufacturing operations which are currently fulfilled through contract manufacturing relationships.

ITEM 3. LEGAL PROCEEDINGS

Aastrom is not party to any material legal proceedings, although from time to time it may become involved in disputes in connection with the operation of its business.

ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS

No matters were submitted to a vote of Aastrom's security holders during the fourth quarter of Aastrom's fiscal year ended June 30, 1999.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY AND RELATED SHAREHOLDER MATTERS

Since February 4, 1997 the Company's Common Stock has been quoted on the Nasdaq National Market under the symbol "ASTM". The following table sets forth the high and low closing prices per share of Common Stock as reported on the Nasdaq National Market:

	PRICE RANGE OF COMMON STOCK	
Year ended 6/30/99:		
1st Quarter	$ 3 3/4	$ 1 7/8
2nd Quarter	5	1 13/16
3rd Quarter	3 1/4	2 3/16
4th Quarter	2 1/4	1 1/4
Year ended 6/30/98:		
1st Quarter	$ 9 15/16	$ 3 1/4
2nd Quarter	8 1/8	4 3/8
3rd Quarter	6 1/2	4 3/8
4th Quarter	6 3/4	3 1/2

As of August 31, 1999, there were approximately 220 holders of record of the Common Stock. The Company has never paid any cash dividends on its Common Stock and does not anticipate paying such cash dividends in the foreseeable future. The Company currently anticipates that it will retain all future earnings, if any, for use in the development of its business.

ITEM 6. SELECTED FINANCIAL DATA

The statement of operations data for the fiscal years ended June 30, 1997, 1998 and 1999 and for the period from Inception to June 30, 1999 and the balance sheet data at June 30, 1998 and 1999, are derived from, and are qualified by reference to, the audited financial statements included in the Company's report on Form 10-K and should be read in conjunction with those financial statements and notes thereto. The statement of operations data for the fiscal years ended June 30, 1995 and 1996, and the balance sheet data at June 30, 1995, 1996 and 1997, are derived from audited financial statements not included herein. The data set forth below are qualified by reference to, and should be read in conjunction with, the financial statements and notes thereto and "Management's Discussion and Analysis of Financial Condition and Results of Operations."

	Year ended June 30,					Inception to June 30,
	1995	1996	1997	1998	1999	1999
STATEMENT OF OPERATIONS DATA:						
Revenues:						
Product sales	$ -	$ -	$ -	$ -	$ 34,000	$ 34,000
Research and development agreements	396,000	1,342,000	230,000	3,000	-	2,020,000
Grants	121,000	267,000	148,000	246,000	847,000	3,236,000
Total revenues	517,000	1,609,000	378,000	249,000	881,000	5,290,000
Costs and expenses:						
Cost of product sales	-	-	-	-	6,000	6,000
Research and development	4,889,000	10,075,000	13,357,000	15,498,000	10,871,000	64,801,000
Selling, general and administrative	1,558,000	2,067,000	1,953,000	2,858,000	2,836,000	14,736,000
Total costs and expenses	6,447,000	12,142,000	15,310,000	18,356,000	13,713,000	79,543,000
Loss from operations	(5,930,000)	(10,533,000)	(14,932,000)	(18,107,000)	(12,832,000)	(74,253,000)
Other income (expense):						
Other income	-	-	-	-	1,237,000	1,237,000
Interest income	279,000	678,000	676,000	886,000	571,000	3,709,000
Interest expenses	(66,000)	(62,000)	(32,000)	(12,000)	(4,000)	(267,000)
Net loss	$ (5,717,000)	$ (9,917,000)	$(14,288,000)	$(17,233,000)	$(11,028,000)	$(69,574,000)
Net loss applicable to common shares	$ (5,717,000)	$ (9,917,000)	$(14,288,000)	$(21,023,000)	$(11,507,000)	
Net loss per common share (Basic and diluted)	$(.78)	$(1.07)	$(1.27)	$(1.57)	$(.75)	
Weighted average number of common shares outstanding	7,309,000	9,269,000	11,228,000	13,363,000	15,342,000	

	June 30,				
	1995	1996	1997	1998	1999
BALANCE SHEET DATA:					
Cash, cash equivalents and short-term investments	$ 11,068,000	$ 10,967,000	$ 17,007,000	$ 11,212,000	$ 7,528,000
Working capital	10,319,000	9,851,000	15,600,000	10,121,000	8,009,000
Total assets	12,551,000	12,673,000	18,410,000	12,374,000	9,540,000
Long-term capital lease obligations	412,000	189,000	65,000	-	-
Deficit accumulated during the development stage	(17,108,000)	(27,025,000)	(41,313,000)	(58,897,000)	(70,334,000)
Total shareholders' equity	11,186,000	10,850,000	16,583,000	10,846,000	8,511,000

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

OVERVIEW

Since its inception, the Company has been in the development stage and engaged in research and product development, conducted principally on its own behalf, but also in connection with various collaborative research and development agreements with others. The Company has commenced its initial product launch in Europe of the AastromReplicell(TM) Cell Production System (System), but does not expect to generate positive cash flows from operations for at least the next several years. Unless more significant product sales commence, the Company expects that its revenue sources will continue to be limited to grant revenue and research funding, milestone payments and licensing fees from potential future corporate collaborators. The timing and amount of such future cash payments and revenues, if any, will be subject to significant fluctuations, based in part on the success of the Company's research activities, the receipt of necessary regulatory approvals, the timing of the achievement of certain other milestones and the extent to which associated costs are reimbursed under grant or other arrangements. A portion of the Company's revenues from product sales will be subject to the Company's obligation to make aggregate royalty payments of up to 2% to certain licensors of its technology. Research and development expenses may fluctuate due to the timing of expenditures for the varying stages of the Company's research, product development and clinical development programs. Generally, product development expenses for the AastromReplicell(TM) System have decreased as the product has progressed into general production and market launch. Clinical development costs are expected to increase as the Company conducts its U.S. pivotal clinical trials. Marketing and other general and administrative expenses are expected to increase in support of European marketing activities. Under the Company's license agreement with Immunex, the $1,000,000 annual renewal fees due in March 1998 and 1999 were each paid through the issuance of $1,100,000 of the Company's common stock. An additional $1,000,000 renewal fee is due in March 2000 and the Company has negotiated for the payment of this fee through the issuance of common stock. As a result of these and other factors, the Company's results of operations have fluctuated and are expected to continue to fluctuate significantly from year to year and from quarter to quarter and therefore may not be comparable to or indicative of the result of operations for any future periods.

In May 1999, the Company formed Zellera AG (Zellera) as a wholly-owned subsidiary based in Berlin, Germany. The formation of Zellera is intended to provide access to additional funding and collaboration opportunities in new product areas and to also support Aastrom's European product commercialization efforts. Initial funding for Zellera is being pursued, which is planned to consist of a combination of investment capital, loans and subsidies from the German government. With this potential funding, Zellera will have access to Aastrom's intellectual property base for human cell therapies and will develop new product areas. Subsequent to June 30, 1999, Aastrom has made commitments totaling up to $530,000 related to initial start up activities for Zellera's operations.

Over the past several years, the Company's net loss has primarily increased, consistent with the growth in the Company's scope and size of operations. Adjusting to the transition of the AastromReplicell(TM) System into the production phase, the Company reduced its workforce in November 1998. This transition led to a reduction in the Company's net loss for 1999 by 36% compared to 1998. A future growth in employee headcount is expected to become necessary to address increasing requirements in the areas of product and customer support, research, clinical and regulatory affairs, quality systems, sales and marketing and administration. Assuming capital is available to finance such growth, the Company's operating expenses will increase as a result. At least until such time as the Company enters into arrangements providing research and development funding or achieves greater product sales, the Company will continue to incur net operating losses. The Company has never been profitable and does not anticipate having net income unless and until significant product sales commence. Through June 30, 1999, the Company has accumulated losses of $69,574,000. There can be no assurance that the Company will be able to achieve profitability on a sustained basis, if at all.

RESULTS OF OPERATIONS

Total revenues were $881,000 in 1999, $249,000 in 1998 and $378,000 in 1997. In 1999, revenues include product sales of $34,000, reflecting European launch of the Company's lead product, the AastromReplicell(TM) System, in the fiscal fourth quarter. Grant revenues increased to $847,000 in 1999 from $246,000 in 1998 and from $148,000 in 1997, reflecting the award of research grants and related research activities, to the extent that such associated costs are reimbursed under the grants. Grant revenues accounted for 96%, 99% and 39% of total revenues for the years ended June 30, 1999, 1998 and 1997, respectively, and are recorded on a cost-reimbursement basis. Revenues from research and development agreements totaled $3,000 in 1998 and $230,000 in 1997. The revenues in 1997 reflect research funding received by the Company under a collaboration which commenced in September 1995 and ended in September 1996 and accounted for 52% of revenues in 1997.

Total costs and expenses were $13,713,000 in 1999, $18,356,000 in 1998 and $15,310,000 in 1997. The decrease in costs and expenses in 1999 is the result of a decrease in research and development expense to $10,871,000 from $15,498,000 in 1998. The increase in costs and expenses in 1998 is primarily the result of an increase in research and development expense to $15,498,000 in 1998 from $13,357,000 in 1997. These fluctuations reflect development activities for the AastromReplicell(TM) System which progressed into commercial launch during 1999. Research and development expense includes a charge of $1,100,000 in both 1999 and 1998 and a charge of $1,000,000 in 1997, representing license fee payments pursuant to the Company's supply agreement with Immunex. General and administrative expenses were $2,836,000 in 1999, $2,858,000 in 1998 and $1,953,000 in 1997. General and administrative expenses, which decreased slightly in 1999 compared to 1998, but increased in 1998, reflect increased finance, legal and other administrative and marketing expenses in support of the Company's product development and research activities. In November 1998, the Company implemented a reduction in work force, affecting 19 staff positions and certain other contract positions, reducing overall operating expenses by approximately 15%. The reduction in headcount generally affected staff and operations that were not required for product manufacturing and support or to support the Company's clinical development programs.

Interest income was $571,000 in 1999, $886,000 in 1998 and $676,000 in 1997. The fluctuations in interest income are due primarily to corresponding changes in the levels of cash, cash equivalents and short-term investments during the periods. Interest expense was $4,000 in 1999, $12,000 in 1998 and $32,000 in 1997, reflecting decreasing amounts outstanding under capital leases during these periods, which have now been fully repaid. Other income for the year ended June 30, 1999 includes $1,237,000 representing a one-time payment received from Cobe in connection with the termination of the Company's marketing and distribution agreement in November 1998.

The Company's net loss was $11,028,000, or $.75 per common share in 1999, $17,233,000, or $1.57 per common share in 1998 and $14,288,000, or $1.27 per common share in 1997. The computation of net loss per common share for the years ended June 30, 1998 and 1999 include adjustments for dividends and yields on outstanding preferred stock as well as one-time charges related to the sale of the preferred stock. The one-time charges, dividends and yields affect only the computation of net loss per common share and are not included in the net loss for the periods. The Company expects to report additional substantial net losses while product sales commence.

The Company has not generated any profits to date and therefore has not paid any federal income taxes since inception. At June 30, 1999, the Company's Federal tax net operating loss and tax credit carryfowards were $67,800,000 and $1,990,000, respectively, which will expire from 2004 through 2019, if not utilized. The Company underwent an ownership change in October 1993, which has resulted in a limitation under which the Company can utilize a portion of its net operating loss carryforward amounting to $1,153,000 per year. As of June 1999, the portion of the Company's net operating loss that remains subject to this limitation is $200,000 and therefore is not expected to ultimately effect the Company's ability to utilize the benefit. In July 1998, the Company issued shares of 1998 Series I Convertible Preferred Stock which resulted in an annual limitation of $3,136,000, which applies to losses incurred between October 1993 and July 1998. As of June 1999, the portion of the Company's net operating loss that remains subject to this limitation is $47,200,000. The Company's ability to utilize its net operating loss and tax credit carryforwards may become subject to further annual limitation.

LIQUIDITY AND CAPITAL RESOURCES

The Company has financed its operations since inception primarily through public and private sales of its equity securities, which, from inception through June 30, 1999, have totaled approximately $78,845,000 and, to a lesser degree, through grant funding, payments received under research agreements and collaborations, interest earned on cash, cash equivalents, and short-term investments, and funding under equipment leasing agreements. These financing sources have historically allowed the Company to maintain adequate levels of cash and other liquid investments.

The Company's combined cash, cash equivalents and short-term investments totaled $7,528,000 at June 30, 1999, a decrease of $3,684,000 from June 30, 1998. The primary uses of cash, cash equivalents and short-term investments during the year ended June 30, 1999 included $11,128,000 to finance the Company's operations and working capital requirements, $73,000 in capital equipment additions and $65,000 in scheduled debt payments. During the year ended June 30, 1999, the Company raised net proceeds of $7,586,000 through the sale of its equity securities.

The Company's future cash requirements will depend on many factors, including continued scientific progress in its research and development programs, the scope and results of clinical trials, the time and costs involved in obtaining regulatory approvals, the costs involved in filing, prosecuting and enforcing patents, competing technological and market developments and the cost of product commercialization. The Company does not expect to generate a positive cash flow from operations for at least the next several years due to the expected spending for research and development programs and the cost of commercializing its product candidates. The Company intends to seek additional funding through research and development, or distribution and marketing, agreements with suitable corporate collaborators, grants and through public or private financing transactions. Assuming that either such additional planned funding is obtained, or the Company significantly reduces the scope of its operating objectives, the Company anticipates that its available cash resources and expected interest income thereon, will be sufficient to finance its operations into mid 2000. This estimate is a forward-looking statement based on certain assumptions which could be negatively impacted by the matters discussed under this heading and under the caption "Business Risks" in the Company's Annual Report on Form 10-K, included herein. The Company is in active business discussions intended to obtain additional funding during this period. The Company expects that its primary sources of capital for the foreseeable future will be through collaborative arrangements and through the public or private sale of its debt or equity securities. There can be no assurance that such collaborative arrangements, or any public or private financing, will be available on acceptable terms, if at all, or can be sustained. Several factors will affect the Company's ability to raise additional funding, including, but not limited to, market volatility of the Company's Common Stock and economic conditions affecting the public markets generally or some portion or all of the technology sector. If adequate funds are not available, the Company may be required to delay, reduce the scope of, or eliminate one or more of its research and development programs, which may have a material adverse effect on the Company's business. See "Business Risks--Future Capital Needs; Uncertainty of Additional Funding" in the Company's 1999 Annual Report on Form 10-K and Notes to Financial Statements included herein.

YEAR 2000 READINESS

Many currently installed computer systems and software products are not capable of distinguishing 20th century dates from 21st century dates. As a result, in less than one year, computer systems and/or software used by many companies in a wide variety of applications will experience operating difficulties unless they are modified or upgraded to adequately process information involving, related to, or dependent upon the century change. Significant uncertainty exists in the software and information services industries concerning the scope and magnitude of problems associated with the century change. In light of the potentially broad effects of the year 2000 on a wide range of business systems, the Company may be affected. The Company utilizes, and is dependent upon, data processing computer hardware and software to conduct its business. The Company has completed its assessment of its own computer systems and based upon this assessment, believes that its computer systems are "Year 2000 compliant;" that is, its computer systems are capable of adequately distinguishing 21st century dates from 20th century dates. However, there can be no assurance that the Company has timely identified or will timely identify and remediate all significant Year 2000 problems in its own computer systems, that the remedial efforts subsequently made will not involve significant time and expense, or that such problems will not have a material adverse effect on the Company's business, operating results and financial condition. The Company has yet to determine the extent, or completed activities to minimize the risk, that the computer systems of the Company's suppliers and manufactures are not

Year 2000 compliant, or will not become compliant on a timely basis. The Company expects that the process of making inquiries with these suppliers will be ongoing through the end of 1999. If Year 2000 problems prevent any of the Company's suppliers from timely delivery of products or services required by the Company, the Company's operating results could be materially adversely affected. The Company currently estimates that its costs to address the Year 2000 issue relating to its suppliers will not be material, and that these costs will be funded from its operating cash flows. To the extent practical, the Company intends to identify alternative suppliers and manufactures in the event its preferred suppliers become incapable of delivering products or services required by the Company on a timely basis. The Company's estimates of Year 2000 costs relating to its suppliers and manufacturers are management's best estimates, which were derived from numerous assumptions of future events, including the continued availability of certain resources, third party remediation plans with regard to Year 2000 issues, and other factors. There can be no assurance that these estimates are correct and actual results could differ materially from these estimates.

FINANCIAL INSTRUMENTS

The only financial instruments the Company maintains are in accounts receivables. The Company believes that the interest rate risk related to these accounts is not significant. The Company manages the risk associated with these accounts through period reviews of the carrying value for non-collectability and establishment of appropriate allowances in connection with the Company's internal controls and policies. The Company does not enter into hedging or derivative instruments.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

See "Management's Discussion and Analysis of Financial Condition and Results of Operations--Financial Instruments."

BUSINESS RISKS

Aastrom's business is subject to a number of risks and uncertainties, including those discussed below.

IF WE CANNOT COMPLETE OUR PRODUCT DEVELOPMENT ACTIVITIES SUCCESSFULLY, OUR ABILITY TO OPERATE OR FINANCE OPERATIONS WILL BE SEVERELY LIMITED.

Commercialization in the United States of our lead product candidate, the AastromReplicell(TM) Cell Production System, will require additional research and development by Aastrom as well as substantial clinical trials. While we have commenced initial marketing on a limited basis of the AastromReplicell(TM) System in Europe, we believe that the United States will be the principal market for our products. Aastrom may not be able to successfully complete development of the AastromReplicell(TM) System or its other product candidates, or successfully market its technologies or product candidates. Aastrom or its potential collaborators may encounter problems and delays relating to research and development, regulatory approval and intellectual property rights of Aastrom's technologies and product candidates. Aastrom's research and development programs may not be successful, and its cell culture technologies and product candidates may not facilitate the ex vivo production of cells with the expected biological activities in humans. Our technologies and product candidates may not prove to be safe and efficacious in clinical trials, and we may not obtain the intended regulatory approvals for our technologies or product candidates and the cells produced in such products. If any of these events happen, we may not have adequate resources to continue operations for the period required to resolve the issue delaying commercialization and we may not be able to raise capital to finance our continued operation during the period required for resolution of that issue.

WE MUST SUCCESSFULLY COMPLETE OUR CLINICAL TRIALS TO BE ABLE TO MARKET OUR PRODUCTS.

To be able to market products in the United States, Aastrom must demonstrate, through extensive preclinical studies and clinical trials, the safety and efficacy of its processes and product candidates, together with the cells produced by such processes in such products, for application in the treatment of humans. Aastrom is currently conducting a pivotal clinical trial to demonstrate the safety and biological activity of patient-derived cells produced in the AastromReplicell(TM) System. We intend to commence two other pivotal clinical trials to demonstrate the safety and biological activity of umbilical cord blood cells produced in the AastromReplicell(TM) System. If our clinical trials are not successful, our products may not be marketable.

Our ability to complete our clinical trials in a timely manner depends on many factors, including the rate of patient enrollment. Patient enrollment can vary with the size of the patient population, the proximity of suitable patients to clinical sites, perceptions of the utility of stem cell therapy for the treatment of certain diseases and the eligibility criteria for the study. We have experienced delays in patient accrual in our previous and current clinical trials. If we experience future delays in patient accrual, we could experience increased costs and delays associated with clinical trials which would impair our product development programs and our ability to market our products. Furthermore, the FDA monitors the progress of clinical trials and it may suspend or terminate clinical trials at any time due to patient safety or other considerations.

FAILURE TO OBTAIN AND MAINTAIN REQUIRED REGULATORY APPROVALS WOULD SEVERELY LIMIT OUR ABILITY TO SELL OUR PRODUCTS.

We must obtain the approval of the U.S. Food and Drug Administration (the "FDA") before commercial sales of Aastrom's product candidates may commence in the United States, which we believe will be the principal market for our products. We may also be required to obtain additional approvals from foreign regulatory authorities to continue or increase our sales activities in those jurisdictions. If we cannot demonstrate the safety, reliability and efficacy of our product candidates, or of the cells produced in such products, we may not be able to obtain required regulatory approvals. Many of the patients enrolled in the clinical trials will have previously undergone extensive treatment which will have substantially weakened the patients and may have irreparably damaged the ability of their blood and immune system to recover. Some patients undergoing the transplant recovery process have died, from causes that were, according to the physicians involved, unrelated to the AastromReplicell(TM) System procedure, and it is possible that other patients may die or suffer severe complications during the course of either the current trials or future trials. In addition, patients receiving cells produced with Aastrom's technologies and product candidates may not demonstrate long-term engraftment in a manner comparable to cells

obtained from current stem cell therapy procedures. If we cannot demonstrate the safety or efficacy of our technologies and product candidates, including long-term sustained engraftment, or if one or more patients die or suffer severe complications, the FDA or other regulatory authorities could delay or withhold regulatory approval of our product candidates.

Finally, even if we obtain regulatory approval of a product, that approval may be subject to limitations on the indicated uses for which it may be marketed. Even after granting regulatory approval, the FDA, other regulatory agencies, and governments in other countries continue to review and inspect marketed products, manufacturers and manufacturing facilities. Later discovery of previously unknown problems with a product, manufacturer or facility may result in restrictions on the product or manufacturer, including a withdrawal of the product from the market. Further, governmental regulatory agencies may establish additional regulations which could prevent or delay regulatory approval of our products.

EVEN IF WE OBTAIN REGULATORY APPROVALS TO SELL OUR PRODUCTS, LACK OF COMMERCIAL ACCEPTANCE MAY IMPAIR OUR BUSINESS.

Aastrom's product development efforts are primarily directed toward obtaining regulatory approval to market the AastromReplicell(TM) System as an alternative to, or as an improvement for, the bone marrow harvest and peripheral blood progenitor cell stem cell collection methods. These stem cell collection methods have been widely practiced for a number of years, and Aastrom's technologies or product candidates may not be accepted by the marketplace as readily as these or other competing processes and methodologies. As a result, even if we obtain all required regulatory approvals, we cannot be certain that our products and processes will be adopted at a level that would allow us to operate profitably.

FAILURE OF THIRD PARTIES TO MANUFACTURE COMPONENT PARTS OR PROVIDE LIMITED SOURCE SUPPLIES WOULD IMPAIR OUR NEW PRODUCT DEVELOPMENT AND OUR SALES ACTIVITIES.

Aastrom relies solely on third parties to manufacture its product candidates and their component parts. Aastrom also relies solely on third party suppliers to provide necessary key mechanical components, as well as growth factors and other materials used in the cell expansion process. We would not be able to obtain alternate sources of supply for many of these items on a short-term basis. If any of our key manufacturers or suppliers fail to perform their respective obligations or if our supply of growth factors, components or other materials is limited or interrupted, we would not be able to conduct clinical trials or market our product candidates on a timely and cost-competitive basis, if at all.

Furthermore, some of the compounds used by Aastrom in its current stem cell expansion processes involve the use of animal-derived products. Suppliers or regulatory authorities may limit or restrict the availability of such compounds for clinical and commercial use. Any restrictions on these compounds would impose a potential competitive disadvantage for Aastrom's products. If Aastrom was not able to develop or obtain alternative compounds, its product development and commercialization efforts would be harmed.

Finally, Aastrom may not be able to continue its present arrangements with its suppliers, supplement existing relationships, establish new relationships or be able to identify and obtain the ancillary materials that are necessary to develop its product candidates in the future. Aastrom's dependence upon third parties for the supply and manufacture of such items could adversely affect Aastrom's ability to develop and deliver commercially feasible products on a timely and competitive basis.

OUR PAST LOSSES AND EXPECTED FUTURE LOSSES CAST DOUBT ON OUR ABILITY TO OPERATE PROFITABLY.

Aastrom was incorporated in 1989 and has experienced substantial operating losses since inception. As of June 30, 1999, Aastrom has incurred net operating losses totaling approximately $69.6 million. These losses have resulted principally from costs incurred in the research and development of Aastrom's cell culture technologies and the AastromReplicell(TM) System, general and administrative expenses, and the prosecution of patent applications. Aastrom expects to incur significant operating losses until product sales increase, primarily owing to its research and development programs, including preclinical studies and clinical trials, and the establishment of marketing and distribution capabilities necessary to support commercialization efforts for its products. Aastrom cannot predict with any certainty the amount of future losses. Aastrom's ability to achieve profitability will depend, among other things, on successfully completing the development of its product

candidates, obtaining regulatory approvals, establishing manufacturing, sales and marketing arrangements with third parties, and raising sufficient funds to finance its activities. Aastrom may not be able to achieve or sustain profitability.

GIVEN OUR LIMITED INTERNAL SALES AND MARKETING CAPABILITIES, WE NEED TO DEVELOP COLLABORATIVE RELATIONSHIPS TO SELL, MARKET AND DISTRIBUTE OUR PRODUCTS.

While we have commenced initial marketing on a limited basis of the AastromReplicell(TM) System in Europe, we have only limited internal sales, marketing and distribution capabilities. We intend to market our products through collaborative relationships with companies for sales, marketing and distribution capabilities. If we cannot develop and maintain those relationships, we would have only limited abilities to market, sell and distribute our products. Even if we are able to enter into those relationships, they may not succeed or be sustained on a long-term basis, and termination would require us to develop alternate arrangements at a time when we need sales, marketing or distribution capabilities to meet existing demand. For example, Aastrom and Cobe BCT recently terminated their strategic alliance for the worldwide distribution of the AastromReplicell(TM) System for stem cell therapy and related uses and Aastrom is seeking to enter into other arrangements relating to the development and marketing of our product candidates.

WE CANNOT BE CERTAIN THAT WE WILL BE ABLE TO RAISE THE REQUIRED CAPITAL TO CONDUCT OUR OPERATIONS AND DEVELOP OUR PRODUCTS.

We will require substantial capital resources in order to conduct our operations and develop our products. Aastrom anticipates that its available cash and expected interest income will be sufficient to finance the development and manufacture of the AastromReplicell(TM) System for use in clinical trials, expanded clinical trials, other research and development and working capital and other corporate requirements into early 2000. This estimate is based on certain assumptions which could be negatively impacted by the matters discussed under this heading. In order to grow and expand our business, and to introduce our product candidates into the marketplace, Aastrom will need to raise additional funds. We will also need additional funds or a collaborative partner to finance the research and development activities of Aastrom's product candidates for the expansion of additional cell types.

Aastrom's future capital requirements will depend upon many factors, including

- continued scientific progress in its research and development programs,
- costs and timing of conducting clinical trials and seeking regulatory approvals and patent prosecutions,
- competing technological and market developments,
- possible changes in existing collaborative relationships,
- the ability of Aastrom to establish additional collaborative relationships, and
- effective commercialization activities and facilities expansions if and as required.

Because of our long-term funding requirements, we may attempt to access the public or private equity markets if and whenever conditions are favorable, even if we do not have an immediate need for additional capital at that time. This additional funding may not be available to Aastrom on reasonable terms, or at all. If adequate funds are not available, Aastrom may be required to delay or terminate research and development programs, curtail capital expenditures, and reduce business development and other operating activities.

ANY CHANGES IN THE GOVERNMENTAL REGULATORY CLASSIFICATIONS OF OUR PRODUCTS COULD PREVENT, LIMIT OR DELAY OUR ABILITY TO MARKET OR DEVELOP OUR PRODUCTS.

The FDA establishes regulatory requirements based on the classification of a product. Although the FDA has indicated it intends to regulate the AastromReplicell(TM) System for stem cell therapy as a Class III medical device, the FDA may ultimately choose to regulate the AastromReplicell(TM) System under another category. Because our product development programs are designed to satisfy the standards applicable to Class III medical devices, a change in the regulatory classification would affect our ability to obtain FDA approval of our products. Also, the FDA is in the process of developing its requirements with respect to somatic cell therapy and gene cell therapy products. Until the FDA issues definitive

regulations covering our product candidates, the regulatory guidelines or requirements for approval of such product candidates will continue to be uncertain.

IF WE DO NOT KEEP PACE WITH OUR COMPETITORS AND WITH TECHNOLOGICAL AND MARKET CHANGES, OUR PRODUCTS MAY BECOME OBSOLETE AND OUR BUSINESS MAY SUFFER.

The market for our product is very competitive and is subject to rapid technological changes. Many of Aastrom's competitors have significantly greater resources, more product candidates and have developed product candidates and processes that directly compete with Aastrom's products. Aastrom's competitors may have developed, or could in the future develop, new technologies that compete with our products or even render our products obsolete. In addition, some recently published studies have suggested that stem cell therapy, which is the current principal market for our products, may have limited clinical benefit in the treatment of breast cancer, which is a significant portion of the current overall stem cell transplant market. Our products are designed to improve upon traditional stem cell collection methods, but even if we are able to demonstrate improved or equivalent results, practitioners may not switch to our new processes. Given the experience and expertise associated with traditional methods, if we can not develop our cell production procedure to lead to a less expensive and quicker recovery time than seen with the traditional methods, we will suffer a competitive disadvantage. Finally, to the extent that others develop new technologies that address the diseases and health conditions we have targeted, our business will suffer.

OUR PATENTS AND PROPRIETARY RIGHTS DO NOT PROVIDE SUBSTANTIAL PROTECTION, OUR BUSINESS AND COMPETITIVE POSITION WILL SUFFER.

Our success depends in large part on our ability to develop or license and protect proprietary products and technologies. However, we cannot be sure that patents will be granted on any of our pending or future patent applications. We also cannot be sure that the scope of any of our issued patents will be sufficiently broad to offer meaningful protection. In addition, our issued patents or patents licensed to us could be successfully challenged, invalidated or circumvented so that our patent rights would not create an effective competitive barrier. Furthermore, Aastrom relies on licenses granted by the University of Michigan for certain of its patent rights. If Aastrom breaches such agreements or otherwise fails to comply with such agreements, or if such agreements expire or are otherwise terminated, Aastrom may lose its rights under the patents held by the University of Michigan. Aastrom also relies on trade secrets and unpatentable know-how which it seeks to protect, in part, by confidentiality agreements with its employees, consultants, suppliers and licensees. These agreements may be breached, and Aastrom might not have adequate remedies for any breach. If this were to occur, or business and competitive position would suffer.

INTELLECTUAL PROPERTY LITIGATION COULD HARM OUR BUSINESS.

Aastrom's success will also depend in part on its ability to develop commercially viable products without infringing the proprietary rights of others. Although Aastrom has not been subject to any filed infringement claims, other patents could exist or could be filed which would prohibit or limit our ability to market our products or maintain our competitive position. In the event of an intellectual property dispute, Aastrom may be forced to litigate. Intellectual property litigation would divert management's attention from developing our products and would force Aastrom to incur substantial costs regardless of whether we are successful. An adverse outcome could subject Aastrom to significant liabilities to third parties, and force Aastrom to curtail or cease its development and sale of its products and processes.

THE MARKET FOR OUR PRODUCTS WILL BE HEAVILY DEPENDENT ON THIRD PARTY REIMBURSEMENT POLICIES.

Aastrom's ability to successfully commercialize its product candidates will depend on the extent to which government healthcare programs, such as Medicare and Medicaid, as well as private health insurers, health maintenance organizations and other third party payors will pay for our products and related treatments. Reimbursement by third-party payors depends on a number of factors, including the payor's determination that use of the product is safe and effective, not experimental or investigational, medically necessary, appropriate for the specific patient and cost-effective. Reimbursement in the United States or foreign countries may not be available or maintained for any of Aastrom's product candidates. If we do not obtain approvals for adequate third-party reimbursements, we may not be able to establish or maintain price levels sufficient to

realize an appropriate return on our investment in product development. Any limits on reimbursement available from third-party payors may reduce the demand for, or negatively affect the price of, our products.

POTENTIAL PRODUCTS LIABILITY CLAIMS COULD EFFECT OUR EARNINGS AND FINANCIAL CONDITION.

Aastrom faces an inherent business risk of exposure to product liability claims in the event that the use of the AastromReplicell(TM) System during research and development efforts, including clinical trials, or after commercialization results in adverse effects. As a result, Aastrom may incur significant product liability exposure, which could exceed existing insurance coverage. We may not be able to maintain adequate levels of insurance at reasonable cost and/or reasonable terms. Excessive insurance costs or uninsured claims would increase our operating loss and affect our financial condition.

IF WE CANNOT ATTRACT AND RETAIN KEY PERSONNEL, OUR BUSINESS WILL SUFFER.

Our success depends in large part upon our ability to attract and retain highly qualified scientific and management personnel. We face competition for such personnel from other companies, research and academic institutions and other entities. For example, since our initial public offering in February 1997 three of the six executive officers who were with Aastrom at the time have since left for positions with other organizations and Aastrom has hired two new executive officers to assume their responsibilities. We may not be successful in hiring or retaining key personnel.

THE SERIES III SHARES AND OTHER OUTSTANDING SHARES OF PREFERRED STOCK SHARE HAVE THE POTENTIAL FOR SUBSTANTIAL DILUTION.

The Series III shares and the other outstanding shares of preferred stock are each convertible into a number of shares of common stock that increases as the current market price of the common stock decreases. If the selling shareholder was able to and did convert all of its Series III shares and other outstanding shares of preferred stock as of August 27, 1999, the selling shareholder would have received approximately 4,765,625 shares of common stock. This number of shares could become significantly greater in the event of a decrease in the trading price of the common stock. Purchasers of common stock could therefore experience substantial dilution of their investment upon conversion of the Series III shares and the other outstanding shares of preferred stock. The Series III shares and other outstanding shares of preferred stock are not registered and may be sold only if registered under the Securities Act or sold in accordance with an applicable exemption from registration, such as Rule 144. The shares of common stock into which the Series III shares may be converted are being registered pursuant to this Registration Statement.

OUR STOCK PRICE HAS BEEN VOLATILE AND FUTURE SALES OF SUBSTANTIAL NUMBERS OF OUR SHARES COULD HAVE AN ADVERSE EFFECT ON THE MARKET PRICE OF OUR SHARES.

The market price of shares of our common stock has been volatile. The price of our common stock may continue to fluctuate in response to a number of events and factors, such as:

- clinical trial results,
- the amount of our cash resources and our ability to obtain additional funding,
- announcements of research activities, business developments, technological innovations or new products by us or our competitors,
- changes in government regulation,
- disputes concerning patents or proprietary rights,
- changes in our revenues or expense levels,
- public concern regarding the safety, efficacy or other aspects of the products or methodologies we are developing, and
- changes in recommendations by securities analysts.

Any of these events may cause the price of our shares to fall, which may adversely affect our business and financing opportunities. In addition, the stock market in general and the market prices for biotechnology companies in particular have experienced significant volatility that often has been unrelated to the operating performance or financial conditions of such

companies. These broad market and industry fluctuations may adversely affect the trading price of our shares, regardless of our operating performance or prospects. For example, within the last year, the Company has experienced a day when its stock traded at approximately twice the previous day's closing price and another day when it dropped by approximately 40% from the previous day's closing price.

In addition, sales, or the possibility of sales, of substantial numbers of shares of common stock in the public market could adversely affect prevailing market prices of shares of common stock. Our employees hold a significant number of options to purchase shares, many of which are presently exercisable. Employees may exercise their options and sell shares shortly after such options become exercisable, particularly if they need to raise funds to pay for the exercise of such options or to satisfy tax liabilities that they may incur in connection with exercising their options. Additionally, beginning January 1, 2001, Cobe BCT will be able to sell all of its approximately 2.4 million shares of our common stock without restriction.

OUR CORPORATE DOCUMENTS AND MICHIGAN LAW CONTAIN PROVISIONS THAT MAY MAKE IT MORE DIFFICULT FOR US TO BE ACQUIRED.

Our board of directors has the authority, without shareholder approval, to issue additional shares of preferred stock and to fix the rights, preferences, privileges and restrictions of these shares without any further vote or action by our shareholders. This authority, together with certain provisions of our charter documents, may have the effect of making it more difficult for a third party to acquire, or of discouraging a third party from attempting to acquire, control of our company. This effect could occur even if our shareholders consider the change in control to be in their best interest.

WE MAY BE REQUIRED TO REDEEM A PORTION OF THE SERIES III SHARES, WHICH WOULD SIGNIFICANTLY REDUCE OUR LIMITED CASH RESOURCES.

The holders of Series III shares may require us to redeem some or all of those shares. These redemption rights would be triggered if we fail to issue shares of common stock on conversion of the Series III Preferred, if we fail to maintain the effectiveness of a registration statement for the resale of those shares of common stock, if we are subject to bankruptcy or insolvency proceedings, if we fail to maintain our listing on the Nasdaq stock market, or if we fail to obtain shareholder approval of the issuance of the Series III shares and the conversion of those Series III shares would result in the issuance of more than 3,084,340 shares of common stock. Any redemption would reduce our available cash resources, which are already very limited.

ABSENCE OF DIVIDENDS COULD REDUCE OUR ATTRACTIVENESS TO INVESTORS.

Some investors favor companies that pay dividends, particularly in market downturns. Aastrom has never paid cash dividends on its common stock and does not anticipate paying any cash dividends on its common stock in the foreseeable future. Therefore, the return on this investment will depend on the ability to sell Aastrom's stock at a profit.

YEAR 2000 ISSUES MAY ADVERSELY AFFECT OUR COMPUTER SYSTEMS AND OUR BUSINESS.

Many currently installed computer systems and software products cannot distinguish 20th century dates from 21st century dates. As a result, some computer systems and/or software will experience operating difficulties unless they are modified or upgraded to adequately process information involving, related to, or dependent upon the century change. In light of the potentially broad effects of the year 2000 on a wide range of business systems, we may be affected. We utilize, and are dependent upon, data processing computer hardware and software to conduct our business. We have completed an assessment of our own computer systems and based upon this assessment, we believe our computer systems are "Year 2000 compliant;" that is, our computer systems are capable of adequately distinguishing 21st century dates from 20th century dates. However, we may not have identified all significant Year 2000 problems in our computer systems, and therefore may be subject to unknown risk and expense. Based on our internal assessment, we believe that the most likely worst case scenario would involve our suppliers and manufacturers. We have not determined the extent, or completed activities to minimize the risk of the computer systems of our suppliers and manufacturers not being Year 2000 compliant, or not becoming compliant on a timely basis. We expect to make inquires with these suppliers through the end of 1999. Year 2000 problems could prevent any of our suppliers from timely delivery of products or services that we need. We currently believe

that our costs to address the Year 2000 issue relating to our suppliers will not be material, and that these costs will be funded from our operating cash flows. To the extent practical, we intend to identify alternative suppliers and manufacturers in the event our preferred suppliers cannot deliver products or services that we need on a timely basis. Our expectations of Year 2000 costs relating to our suppliers and manufacturers are only estimates, which were derived from numerous assumptions of future events, including the continued availability of resources and third-party remediation plans with regard to year 2000 issues. These estimates may not be correct and actual results could differ materially from these estimates.

FORWARD-LOOKING STATEMENTS

This prospectus contains certain forward-looking statements within the meaning of Section 27A of the Securities Act and Section 21E of the Securities Exchange Act. These forward-looking statements include statements regarding:

- uncertainties related to product development and marketability,
- uncertainties related to clinical trials,
- manufacturing and supply uncertainties and dependence on third parties,
- anticipation of future losses,
- limited sales and marketing capabilities,
- future capital needs and uncertainty of additional funding,
- uncertainty of regulatory approval and extensive government regulation,
- competition and technological change,
- uncertainty regarding patents and proprietary rights,
- no assurance of third party reimbursement,
- hazardous materials, and
- potential product liability and availability of insurance.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

REPORT OF INDEPENDENT ACCOUNTANTS

To the Board of Directors and Shareholders of
Aastrom Biosciences, Inc.

In our opinion, the accompanying consolidated balance sheets and the related consolidated statements of operations, of shareholders' equity and of cash flows present fairly, in all material respects, the consolidated financial position of Aastrom Biosciences, Inc. (a development stage company) at June 30, 1998 and 1999, and the results of its operations and its cash flows for each of the three years in the period ended June 30, 1999, and for the period from March 24, 1989 (Inception) to June 30, 1999, in conformity with generally accepted accounting principles. 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 of these statements in accordance with generally accepted auditing standards which 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, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for the opinion expressed above.

PricewaterhouseCoopers LLP
Minneapolis, MN
August 13, 1999

AASTROM BIOSCIENCES, INC.
(a development stage company)
CONSOLIDATED BALANCE SHEETS

	June 30, 1998	June 30, 1999
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	$ 2,078,000	$ 7,528,000
Short-term investments	9,134,000	-
Receivables	167,000	113,000
Inventory	-	1,144,000
Prepaid expenses	270,000	253,000
Total current assets	11,649,000	9,038,000
PROPERTY, NET	725,000	502,000
Total assets	$12,374,000	$ 9,540,000
LIABILITIES AND SHAREHOLDERS' EQUITY		
CURRENT LIABILITIES:		
Accounts payable and accrued expenses	$ 1,313,000	$ 836,000
Accrued employee expenses	150,000	193,000
Current portion of capital lease obligations	65,000	-
Total current liabilities	1,528,000	1,029,000
COMMITMENTS (Note 8)		
SHAREHOLDERS' EQUITY:		
Preferred Stock, no par value; shares authorized - 5,000,000; shares issued and outstanding - 2,200,000 and 7,000, respectively (Note 4)	9,930,000	6,588,000
Common Stock, no par value; shares authorized - 40,000,000; shares issued and outstanding - 13,639,817 and 16,980,161, respectively	59,474,000	72,257,000
Deficit accumulated during the development stage	(58,897,000)	(70,334,000)
Stock purchase warrants	335,000	-
Accumulated other comprehensive income	4,000	-
Total shareholders' equity	10,846,000	8,511,000
Total liabilities and shareholders' equity	$12,374,000	$ 9,540,000

The accompanying notes are an integral part of these financial statements

AASTROM BIOSCIENCES, INC.
(a development stage company)

CONSOLIDATED STATEMENTS OF OPERATIONS

	Year ended June 30,			March 24, 1989 (Inception) to June 30,
	1997	1998	1999	1999
REVENUES:				
Product sales	$ -	$ -	$ 34,000	$ 34,000
Research and development agreements	230,000	3,000	-	2,020,000
Grants	148,000	246,000	847,000	3,236,000
Total revenues	378,000	249,000	881,000	5,290,000
COSTS AND EXPENSES:				
Cost of product sales	-	-	6,000	6,000
Research and development	13,357,000	15,498,000	10,871,000	64,801,000
Selling, general and administrative	1,953,000	2,858,000	2,836,000	14,736,000
Total costs and expenses	15,310,000	18,356,000	13,713,000	79,543,000
LOSS FROM OPERATIONS	(14,932,000)	(18,107,000)	(12,832,000)	(74,253,000)
OTHER INCOME (EXPENSE):				
Other income	-	-	1,237,000	1,237,000
Interest income	676,000	886,000	571,000	3,709,000
Interest expense	(32,000)	(12,000)	(4,000)	(267,000)
Total other income	644,000	874,000	1,804,000	4,679,000
NET LOSS	$(14,288,000)	$(17,233,000)	$(11,028,000)	$ (69,574,000)
COMPUTATION OF NET LOSS APPLICABLE TO COMMON SHARES:				
Net loss	$(14,288,000)	$(17,233,000)	$(11,028,000)	
Dividends and yields on preferred stock	-	(351,000)	(409,000)	
Charge related to issuance of preferred stock	-	(3,439,000)	(70,000)	
Net loss applicable to Common Shares	$(14,288,000)	$(21,023,000)	$(11,507,000)	
NET LOSS PER COMMON SHARE (Basic and Diluted)	$ (1.27)	$ (1.57)	$ (.75)	
Weighted average number of common shares outstanding	11,228,000	13,363,000	15,342,000	

The accompanying notes are an integral part of these financial statements

AASTROM BIOSCIENCES, INC.
(a development stage company)
CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY

	Preferred Stock		Common Stock	
	Shares	Amount	Shares	Amount
BALANCE, MARCH 24, 1989 (Inception)	-	$ -	-	$ -
Net loss, comprehensive loss				
Non-cash issuance of Common Stock			454,545	-
Issuance of Series A Preferred Stock at $1.00 per share in August 1989	1,500,000	1,500,000		
Issuance of Series A Preferred Stock in March 1991 at $1.00 per share, net of issuance costs of $5,000	1,000,000	995,000		
Issuance of Series B Preferred Stock in April 1992 at $2.00 per share, net of issuance costs of $46,000	3,030,000	6,014,000		
Issuance of Common Stock for cash and services			33,333	33,000
Issuance of Series C Preferred Stock in October 1993 at $1,000 per share, net of issuance costs of $175,000	10,000	9,825,000		
Issuance of Series D Preferred Stock in April and May 1995 at $4.00 per share, net of issuance costs of $81,000	2,500,001	9,919,000		
Issuance of Series E Preferred Stock in January 1996 at $4.25 per share, net of issuance costs of $35,000	1,411,765	5,965,000		
Exercise of stock options			1,398,601	93,000
Issuance of Stock Purchase Rights for cash in September 1995 and March 1996				
Principal payment received under shareholder note receivable				31,000
BALANCE, JUNE 30, 1996	9,451,766	34,218,000	1,886,479	157,000
Net loss				
Unrealized losses on investments				
Comprehensive loss				
Exercise of stock options			40,307	26,000
Issuance of Series E Preferred Stock at $17.00 per share	205,882	3,500,000		
Issuance of Common Stock at $7.00 per share, net of issuance costs of $2,865,000			3,250,000	19,885,000
Conversion of preferred stock	(9,657,648)	(37,718,000)	8,098,422	37,718,000
Compensation expense related to stock options granted				120,000
BALANCE, JUNE 30, 1997	-	-	13,275,208	57,906,000
Net loss				
Unrealized gains on investments				
Comprehensive loss				
Exercise of stock options			68,500	83,000
Issuance of 5.5% Convertible Preferred Stock at $5.00 per share, net of issuance costs of $1,070,000	2,200,000	9,930,000		
Dividend paid on 5.5% Convertible Preferred Stock			72,940	351,000
Issuance of Common Stock			255,340	1,144,000
Repurchase and retirement of Common Shares outstanding			(32,171)	(73,000)
Compensation expense related to stock options and warrants granted				63,000
BALANCE, JUNE 30, 1998	2,200,000	9,930,000	13,639,817	59,474,000
Net loss				
Unrealized gains on investments				
Comprehensive loss				
Dividend and yields on preferred stock		258,000	75,628	151,000
Exercise of stock options			24,043	28,000
Issuance of 1998 Series I Convertible Preferred Stock at $1,000 per share, net of issuance costs of $460,000	5,000	4,540,000	40,404	149,000
Issuance of 1999 Series III Convertible Preferred Stock at $1,000 per share, net of issuance costs of $280,000	3,000	2,720,000	49,994	90,000
Issuance of Common Stock			451,906	1,159,000
Conversion of 5.5% Convertible Preferred Stock	(2,200,000)	(9,930,000)	2,240,326	9,930,000
Conversion of Series I Convertible Preferred Stock	(1,000)	(930,000)	458,043	930,000
Expiration of stock purchase warrant				335,000
Compensation expense related to stock options granted				11,000
BALANCE, JUNE 30, 1999	7,000	$ 6,588,000	16,980,161	$ 72,257,000

	Stock purchase rights and	Deficit accumulated during the development	Accumulated other comprehensive	Total shareholders'

	warrants	stage	income	equity
BALANCE, MARCH 24, 1989 (Inception)	$ -	$ -	$ -	$ -
Net loss, comprehensive loss		(27,025,000)		(27,025,000)
Non-cash issuance of Common Stock				-
Issuance of Series A Preferred Stock at $1.00 per share in August 1989				1,500,000
Issuance of Series A Preferred Stock in March 1991 at $1.00 per share, net of issuance costs of $5,000				995,000
Issuance of Series B Preferred Stock in April 1992 at $2.00 per share, net of issuance costs of $46,000				6,014,000
Issuance of Common Stock for cash and services				33,000
Issuance of Series C Preferred Stock in October 1993 at $1,000 per share, net of issuance costs of $175,000				9,825,000
Issuance of Series D Preferred Stock in April and May 1995 at $4.00 per share, net of issuance costs of $81,000				9,919,000
Issuance of Series E Preferred Stock in January 1996 at $4.25 per share, net of issuance costs of $35,000				5,965,000
Exercise of stock options				93,000
Issuance of Stock Purchase Rights for cash in September 1995 and March 1996	3,500,000			3,500,000
Principal payment received under shareholder note receivable				31,000
BALANCE, JUNE 30, 1996	3,500,000	(27,025,000)	-	10,850,000
Net loss		(14,288,000)		(14,288,000)
Unrealized losses on investments			(10,000)	(10,000)
Comprehensive loss				(14,298,000)
Exercise of stock options				26,000
Issuance of Series E Preferred Stock at $17.00 per share	(3,500,000)			-
Issuance of Common Stock at $7.00 per share, net of issuance costs of $2,865,000				19,885,000
Conversion of preferred stock				-
Compensation expense related to stock options granted				120,000
BALANCE, JUNE 30, 1997	-	(41,313,000)	(10,000)	16,583,000
Net loss		(17,233,000)		(17,233,000)
Unrealized gains on investments			14,000	14,000
Comprehensive loss				(17,219,000)
Exercise of stock options				83,000
Issuance of 5.5% Convertible Preferred Stock at $5.00 per share, net of issuance costs of $1,070,000				9,930,000
Dividend paid on 5.5% Convertible Preferred Stock		(351,000)		-
Issuance of Common Stock				1,144,000
Repurchase and retirement of Common Shares outstanding				(73,000)
Compensation expense related to stock options and warrants granted	335,000			398,000
BALANCE, JUNE 30, 1998	335,000	(58,897,000)	4,000	10,846,000
Net loss		(11,028,000)		(11,028,000)
Unrealized gains on investments			(4,000)	(4,000)
Comprehensive loss				(11,032,000)
Dividend and yields on preferred stock		(409,000)		-
Exercise of stock options				28,000
Issuance of 1998 Series I Convertible Preferred Stock at $1,000 per share, net of issuance costs of $460,000				4,689,000
Issuance of 1999 Series III Convertible Preferred Stock at $1,000 per share, net of issuance costs of $280,000				2,810,000
Issuance of Common Stock				1,159,000
Conversion of 5.5% Convertible Preferred Stock				-
Conversion of Series I Convertible Preferred Stock				-
Expiration of stock purchase warrant	(335,000)			-
Compensation expense related to stock options granted				11,000
BALANCE, JUNE 30, 1999	$ -	$(70,334,000)	$ -	$ 8,511,000

The accompanying notes are an integral part of these financial statements

	Year ended June 30,			March 24, 1989 (Inception) to June 30,
	1997	1998	1999	1999
OPERATING ACTIVITIES:				
Net loss	$(14,288,000)	$(17,233,000)	$(11,028,000)	$(69,574,000)
Adjustments to reconcile net loss to net cash used for operating activities:				
Depreciation and amortization	564,000	557,000	296,000	2,684,000
Loss on property held for resale	-	-	-	110,000
Amortization of discounts and premiums on investments	(84,000)	(180,000)	(70,000)	(453,000)
Stock compensation expense	120,000	398,000	11,000	539,000
Stock issued pursuant to license agreement	-	1,100,000	1,100,000	2,200,000
Changes in assets and liabilities:				
Receivables	(148,000)	38,000	54,000	(137,000)
Inventory	-	-	(1,144,000)	(1,144,000)
Prepaid expenses	311,000	(144,000)	17,000	(253,000)
Accounts payable and accrued expenses	316,000	(195,000)	(477,000)	836,000
Accrued employee expenses	33,000	20,000	43,000	193,000
Deferred revenue	(122,000)	-	-	-
Net cash used for operating activities	(13,298,000)	(15,639,000)	(11,198,000)	(64,999,000)
INVESTING ACTIVITIES:				
Organizational costs	-	-	-	(73,000)
Purchase of short-term investments	(19,190,000)	(12,326,000)	(1,000,000)	(44,464,000)
Maturities of short-term investments	4,200,000	18,450,000	10,200,000	44,917,000
Capital purchases	(424,000)	(234,000)	(73,000)	(2,449,000)
Proceeds from sale of property held for resale	-	-	-	400,000
Net cash provided by (used for) investing activities	(15,414,000)	5,890,000	9,127,000	(1,669,000)
FINANCING ACTIVITIES:				
Issuance of preferred stock	-	9,930,000	7,499,000	51,647,000
Issuance of Common Stock	19,911,000	127,000	87,000	20,241,000
Repurchase of Common Stock	-	(49,000)	-	(49,000)
Payments received for stock purchase rights	-	-	-	3,500,000
Payments received under shareholder notes	-	-	-	31,000
Principal payments under capital lease obligations	(223,000)	(124,000)	(65,000)	(1,174,000)
Net cash provided by financing activities	19,688,000	9,884,000	7,521,000	74,196,000
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	(9,024,000)	135,000	5,450,000	7,528,000
CASH AND CASH EQUIVALENTS AT BEGINNING OF PERIOD	10,967,000	1,943,000	2,078,000	-
CASH AND CASH EQUIVALENTS AT END OF PERIOD	$ 1,943,000	$ 2,078,000	$ 7,528,000	$ 7,528,000
SUPPLEMENTAL CASH FLOW INFORMATION:				
Interest paid	$ 32,000	$ 12,000	$ 4,000	$ 267,000
Additions to capital lease obligations	-	-	-	1,174,000

The accompanying notes are an integral part of these financial statements

AASTROM BIOSCIENCES, INC.
(a development stage company)

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. ORGANIZATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Aastrom Biosciences, Inc. (Aastrom) was incorporated in March 1989 (Inception) and is in the development stage at June 30, 1999. The Company operates its business in one reportable segment research and product development, conducted both on its own behalf and in connection with various collaborative research and development agreements with others, involving the development and sale of processes and products for the ex vivo production of human cells for use in cell and ex vivo gene therapy.

Successful future operations are subject to several technical and business risks, including satisfactory product development, obtaining regulatory approval and market acceptance for its products and the Company's continued ability to obtain future funding.

As discussed in Note 7, the formation of Zellera is intended, in part, to provide access to additional funding. If this, or other, funding is not obtained, the Company will be required to significantly scale back its operations in order to meet its working capital and capital expenditure needs through at least June 30, 2000. In addition, the Company may need to raise additional funds, and it cannot be certain that if such funding is required, that it will be able to obtain it on favorable terms, if at all. If the Company cannot raise such funds, it may not be able to develop or enhance products, take advantage of future opportunities or respond to competitive pressures or unanticipated requirements, which would negatively impact its business, financial condition and results of operations.

SIGNIFICANT REVENUE RELATIONSHIPS - One company accounted for 52% of total revenues for the year ended June 30, 1997. One company accounted for 34% of total revenues for the period from Inception to June 30, 1999. Grant revenues consist of grants sponsored by the U.S. government.

PRINCIPLES OF CONSOLIDATION - The consolidated financial statements include the accounts of Aastrom and its wholly-owned subsidiary, Zellera AG (Zellera) which is located in Berlin, Germany, (collectively, the Company). All significant inter-company transactions and accounts have been eliminated in consolidation.

CASH AND CASH EQUIVALENTS - Cash and cash equivalents include cash and short-term investments with original maturities of three months or less.

SHORT-TERM INVESTMENTS - Short-term investments consist of U.S. government securities and commercial paper with original maturities of over three months and less than one year. Short-term investments are classified as available-for-sale, and are presented at market value, with unrealized gains and losses on investments reflected as a component of shareholders' equity.

DIVERSITY OF CREDIT RISK - The Company invests its excess cash in U.S. government securities and commercial paper, maintained in U.S. financial institutions, and has established guidelines relative to diversification and maturities in an effort to maintain safety and liquidity. These guidelines are periodically reviewed and modified to take advantage of trends in yields and interest rates. The Company has not experienced any significant realized losses on its cash equivalents or short-term investments.

INVENTORY - Inventory is valued at the lower of cost (specific identification) or market and consists primarily of finished components of the Company's products.

PROPERTY - Property is recorded at cost and depreciated or amortized using the straight-line method over the estimated useful life of the asset (primarily five years), or lease term, if shorter, with respect to leasehold improvements and certain capital lease assets.

REVENUE RECOGNITION - Revenue from grants and research agreements is recognized on a cost reimbursement basis consistent with the performance requirements of the related agreement. Revenue from product sales is recognized upon shipment or transfer of title, whichever occurs later.

RESEARCH AND DEVELOPMENT COSTS - Research and development costs are expensed as incurred. Such costs and expenses related to programs under collaborative agreements with other companies totaled $154,000 and $3,000 for the years ended June 30, 1997 and 1998, respectively, and $1,645,000 for the period from Inception to June 30, 1999.

STOCK COMPENSATION - The Company has adopted the disclosure provisions of Statement of Financial Accounting Standards No. 123, "Accounting for Stock-Based Compensation" (SFAS 123). As permitted by SFAS 123, the Company continues to apply Accounting Principles Board Opinion No. 25, "Accounting for Stock Issued to Employees," (APB 25) and related

interpretations and does not recognize compensation expense for its employee stock-based compensation plans as allowed by SFAS 123.

INCOME TAXES - The Company recognizes deferred tax assets and liabilities for the differences between the carrying amounts and the tax basis of assets and liabilities, as well as net operating loss and tax credit carryforwards. Additionally, the Company establishes a valuation allowance to reflect the likelihood of realization of deferred tax assets.

NET LOSS PER COMMON SHARE - Net loss per common share is computed using the weighted-average number of common shares outstanding during the period. Common equivalent shares are not included in the per share calculation where the effect of their inclusion would be anti-dilutive. Upon the completion of the Company's initial public offering, all outstanding shares of preferred stock at that time were automatically converted into common stock. Accordingly, such shares of preferred stock are assumed to have been converted into common stock at the time of issuance.

The computation of net loss per common share for the years ended June 30, 1998 and 1999 reflects dividends, yields and other adjustments relating to Company's preferred stock which affect only the computation of net loss per common share and are not included in the computation of net loss for the period.

USE OF ESTIMATES - The preparation of financial statements in accordance with generally accepted accounting principles requires management to make estimates that affect the amounts reported in the financial statements and disclosures made in the accompanying notes to financial statements. Actual results could differ from those estimates.

FINANCIAL INSTRUMENTS - The Company evaluates the fair value of those assets and liabilities identified as financial instruments and estimates that the fair value of such financial instruments generally approximates the carrying value in the accompanying financial statements. Fair values have been determined through information obtained from market sources and management estimates.

LONG-LIVED ASSETS - The Company evaluates the impairment of long-lived assets and long-lived assets to be disposed of whenever events or changes in circumstances indicate that the carrying amount of those assets may not be recoverable. No significant impairment losses have been identified by the Company for any of the periods presented in the accompanying financial statements.

NEW ACCOUNTING STANDARDS - The Company adopted Statement of Financial Accounting Standards No. 130, "Reporting Comprehensive Income" (SFAS 130) as of July 1, 1998 which sets forth additional requirements for companies to report in the financial statements Comprehensive Income in addition to Net Income. Adoption of SFAS 130 did not have a material effect on the accompanying financial statements.

Effective June 30, 1999, the Company adopted Statement of Financial Accounting Standards No. 131, "Disclosure about Segments of an Enterprise and Related Information" ("SFAS 131"). This statement establishes new standards for reporting information about operating segments and related disclosures about products, geographic areas, and major customers in annual and interim financial statements. Under SFAS 131, operating segments are determined consistent with the way management organizes and evaluates financial information internally for making decisions and assessing performance. The Company's adoption of SFAS 131 had no effect on the Company's results of operations, cash flows or financial position.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

2. SHORT-TERM INVESTMENTS

All short-term investments are available-for-sale and have maturities of one year or less and are summarized as follows:

	Gross Amortized Cost	Gross Unrealized Gains	Unrealized Losses	Market Value
June 30, 1998:				
U.S. Government Securities...	$ 7,157,000	$ 4,000	$ -	$7,161,000
Commercial Paper.....	1,973,000	-	-	1,973,000
	$ 9,130,000	$ 4,000	$ -	$9,134,000

3. PROPERTY

Property consists of the following:

	June 30, 1998	June 30, 1999
Machinery and equipment.....	$ 1,473,000	$ 1,477,000
Office equipment.....	903,000	883,000
Leasehold improvements.....	621,000	622,000
	2,997,000	2,982,000
Less accumulated depreciation and amortization	(2,272,000)	(2,480,000)
	$ 725,000	$ 502,000

Equipment under capital leases totaled $240,000 at June 30, 1998, with related accumulated amortization of $159,000.

4. SHAREHOLDERS' EQUITY

INITIAL PUBLIC OFFERING - In February 1997, the Company completed an underwritten initial public offering of 3,000,000 shares of its Common Stock at an offering price of $7.00 per share. In March 1997, the underwriters elected to purchase an additional 250,000 shares of Common Stock pursuant to the underwriters' over-allotment option at a price of $7.00 per share. Proceeds from the offering, net of underwriters' commissions and expenses, were $19,885,000.

PREFERRED STOCK - In connection with the Company's initial public offering, all 9,657,648 shares of then outstanding preferred stock were automatically converted into 8,098,422 shares of Common Stock.

In December 1997, the Company completed a directed placement of 2,200,000 shares of its 5.5% Convertible Preferred Stock at a price of $5.00 per share. Proceeds from the offering, net of placement agent commissions and expenses, were $9,930,000. In December 1998, all 2,200,000 shares of 5.5% Convertible Preferred Stock were converted into 2,240,326 shares of Common Stock.

In July 1998, the Company completed the sale of 5,000 shares of its 1998 Series I Convertible Preferred Stock, yielding 5.5% per annum (1998 Preferred Stock). Proceeds from the sale, net of finder's fees and expenses, were $4,540,000. The conversion price of the 1998 Preferred Stock is based on the market price of the Company's common stock during a pricing

period preceding conversion, up to a maximum conversion price of $4.81 per share and automatically converts in July 2001 or earlier upon certain events. During the year ending June 30, 1999, 1,000 shares of 1998 Preferred Stock were converted into 458,043 shares of Common Stock. The 1998 Preferred Stock outstanding as of June 30, 1999 has a preference in liquidation equal to $4,219,000.

In May 1999, the Company completed the sale of 3,000 shares of its 1999 Series III Convertible Preferred Stock, yielding 5.5% per annum (1999 Preferred Stock). Proceeds from the sale, net of finder's fees and expenses, were $2,720,000. The conversion price of the 1999 Preferred Stock is based on the market price of the Company's common stock during a pricing period preceding conversion, up to a maximum conversion price of $2.34 per share and automatically converts in May 2002, or earlier upon certain events. The 1999 Preferred Stock has a preference in liquidation as of June 30, 1999 equal to $3,015,000.

With certain exceptions, until November 23, 1999, the 1999 Preferred Stock is convertible upon the market price of the Company's common stock reaching $2.34 per share, or if there is a 17% increase in the market price of the Company's common stock. Additionally, conversions of the 1998 Preferred Stock are subject to certain limitations through September 1998, unless the Company's common stock reaches $4.81 per share, or if there is a 17% increase in the market price of the Company's common stock.

No cash dividends have ever been declared or paid; however, during the years ended June 30, 1998 and 1999, the Company issued 72,940 shares and 75,628 shares of Common Stock valued at $351,000 and $151,000, respectively, in payment of the dividends on the 5.5% Preferred Stock.

STOCK OPTION PLANS - The Company has various stock option plans and agreements that provide for the issuance of nonqualified and incentive stock options to acquire up to 3,099,927 shares of Common Stock. Such options may be granted by the Company's Board of Directors to certain of the Company's founders, employees, directors and consultants. The exercise price of incentive stock options shall not be less than the fair market value of the shares on the date of grant. In the case of individuals who are also holders of 10% or more of the outstanding shares of Common Stock, the exercise price of incentive stock options shall not be less than 110% of the fair market value of the shares on the date of grant. The exercise price of non-qualified stock options shall not be less than 85% of the fair market value on the date of grant. Options granted under these plans expire no later than ten years from the date of grant and generally become exercisable ratably over a four-year period following the date of grant.

The Company also has an outside directors' stock option plan that provides for the issuance of options to purchase up to 150,000 shares of Common Stock to outside directors. Under this plan, non-qualified options to purchase 5,000 shares of Common Stock are granted to each outside director on the day of the Annual Shareholders' meeting or upon their appointment as a director. These options generally vest over a one-year period and expire ten years after the date of grant.

For certain options granted, the Company recognizes compensation expense for the difference between the deemed value for accounting purposes and the option exercise price on the date of grant. During the years ended June 30, 1997, 1998 and 1999 compensation expense totaling $120,000, $63,000 and $11,000, respectively, has been charged with respect to these options. Additional future compensation expense with respect to the issuance of such options totals $14,000 and will be recognized through December 2001.

If the Company had elected to recognize compensation expense based upon the fair value at the grant dates for stock option awards granted in 1997, 1998 and 1999, in accordance with SFAS No. 123, the pro forma net loss and net loss per common share would be as follows.

	June 30,		
	1997	1998	1999
Net loss:			
As reported	$14,288,000	$17,233,000	$11,028,000
Pro forma	14,793,000	18,042,000	11,935,000
Net loss per common share:			
As reported	$ (1.27)	$ (1.57)	$ (.75)
Pro forma	(1.32)	(1.63)	(.78)

The fair value of options was estimated at the date of grant using the Black-Scholes option pricing model with the following assumptions; no dividend yields, 40% volatility, risk free interest rates ranging from 4.2% to 6.8% and expected option lives of three to five years.

The following table summarizes option activity:

	Options Outstanding	Options Available For Grant	Weighted Average Exercise Price Per Share	Options Exercisable At Period End
March 24, 1989 (Inception)				
Options authorized	-	2,849,927		
Options canceled	(208,884)	208,884	$ .61	
Options granted	1,937,781	(1,937,781)	$ .43	
Options exercised	(1,398,601)	-	$ .21	
Balance, June 30, 1996	330,296	1,121,030	$ 1.20	101,021
Options canceled	(16,818)	16,818	$ 1.83	
Options authorized	-	150,000		
Options granted	785,200	(785,200)	$ 6.78	
Options exercised	(40,307)	-	$ .65	
Balance, June 30, 1997	1,058,371	502,648	$ 5.36	483,376
Options canceled	(199,873)	199,873	$ 5.79	
Options granted	372,520	(372,520)	$ 4.41	
Options exercised	(68,500)	-	$ 1.21	
Balance, June 30, 1998	1,162,518	330,001	$ 5.12	593,930
Options authorized	-	100,000		
Options canceled	(569,881)	569,881	$ 6.40	
Options granted	738,700	(738,700)	$ 3.12	
Options exercised	(24,043)	-	$ 1.18	
Balance, June 30, 1999	1,307,294	261,182	$ 3.60	729,786

The following table summarizes information about stock-based compensation plans as of June 30, 1999:

Range of Exercise Prices	Number of Options Outstanding	Remaining Contractual Life-years	Weighted Average Exercise Price	Number Exercisable	Weighted Average Exercise Price of Exercisable Options
$ .30 - $1.91	184,418	6.8	$1.26	124,959	$1.12
$2.38 - $3.56	856,876	9.0	$3.28	463,327	$3.34
$4.63 - $7.00	266,000	8.0	$6.21	141,500	$6.37
	1,307,294			729,786	

The weighted average fair value of options granted during the year ended June 30, 1999 was $1.33 per share.

MODIFICATIONS TO STOCK OPTIONS - In November 1998, the Company modified certain of the terms of stock options held by non-executive officers of the Company. One modification consisted of a reduction in the exercise price of the stock options to $3.56, the then current fair market value of the common stock. This affected options to purchase an aggregate of approximately 152,000 shares of common stock. In connection with a reduction in work force that also occurred in November 1998, vesting on stock options held by terminated employees was accelerated by one year. This modification, along with other concessions offered to terminated employees, was made in exchange for releases from these individuals relating to their termination of employment. This modification affected stock options to purchase approximately 12,000 shares of common stock. No charge to expense has been reflected in the accompanying financial statements relating to this modification.

EMPLOYEE STOCK PURCHASE PLAN - The Company has an employee stock purchase plan under which eligible employees can purchase Common Stock, at a discount to the market price, through payroll deductions up to 10% of the employees base compensation, subject to certain limitations, during sequential 24-month offering periods. Each offering period is divided into four consecutive six-month purchase periods beginning on March 1 and September 1 of each year. Unless otherwise provided by the Board of Directors prior to the commencement of an offering period, the price at which stock is purchased under the plan for such offering period is equal to 85% of the lesser of the fair market value of the Common Stock on the first day of such offering period or the last day of the purchase period of such offering period. During the years ended June 30, 1998 and 1999, 13,900 shares and 26,835 shares of Common Stock were purchased under this plan.

STOCK PURCHASE WARRANTS - In October 1996, the Company issued warrants to purchase 69,444 shares of Common Stock which expire on October 15, 2000 in connection with an equity financing commitment. These warrants may be exercised, in whole or in part, at a price equal to the lesser of (a) $15.00 per share (increasing to $18.00 per share in February 2000); or (b) 85% of the fair market value of the Company's Common Stock at the time of exercise.

In addition, in connection with the issuance of the 1999 Preferred Stock, the Company has issued warrants to purchase 150,000 shares of common stock at $2.28 per share and will issue warrants to purchase 150,000 shares of common stock at an exercise price equal to 130% of an average of the trading prices of the Company's common stock during a period ending on November 15, 1999, subject to an earlier determination upon certain change in ownership conditions. These warrants expire in May 2004 if not exercised and contain certain anti-dilution provisions.

COMMON SHARES RESERVED - As of June 30, 1999, the Company has reserved shares of Common Stock for future issuance as follows:

Issuance under stock option plans and agreements.....	1,568,476
Issuance under 1996 Employee Stock Purchase Plan.....	209,265
Exercise of Stock Purchase Warrants.....	369,444
Conversion of 1998 Series I Convertible Preferred Stock.....	2,253,957
Conversion of 1999 Series III Convertible Preferred Stock...	3,855,556
	8,256,698

5. INCOME TAXES

Deferred tax assets consist of the following:

	June 30, 1998	June 30, 1999
Net operating loss carryforwards.....	$ 19,950,000	$ 23,740,000
Tax credits and other.....	1,911,000	2,288,000
Gross deferred tax assets.....	21,861,000	26,028,000
Deferred tax assets valuation allowance....	(21,861,000)	(26,028,000)
	$ -	$ -

Due to the historical losses incurred by the Company, a full valuation allowance for deferred tax assets has been provided. If the Company achieves profitability, these deferred tax assets may be available to offset future income taxes.

At June 30, 1999, the Company's Federal tax net operating loss and tax credit carryfowards were $67,800,000 and $1,990,000, respectively, which will expire from 2004 through 2019, if not utilized. The Company underwent an ownership change in October 1993, which has resulted in a limitation under which the Company can utilize a portion of its net operating loss carryforward amounting to $1,153,000 per year. As of June 1999, the portion of the Company's net operating loss that remains subject to this limitation is $200,000 and therefore is not expected to ultimately effect the Company's ability to utilize the benefit. In July 1998, the Company issued shares of 1998 Series I Convertible Preferred Stock which resulted in an annual limitation of $3,136,000, which applies to losses incurred between October 1993 and July 1998. As of June 1999, the portion of the Company's net operating loss that remains subject to this limitation is $47,200,000. The Company's ability to utilize its net operating loss and tax credit carryforwards may become subject to further annual limitation.

6. LICENSES, ROYALTIES AND COLLABORATIVE AGREEMENTS:

UNIVERSITY OF MICHIGAN - In August 1989, the Company entered into a research agreement with the University of Michigan (the University). In March 1992, and as provided for under the research agreement, the Company also entered into a license agreement for the technology developed under the research agreement. The license agreement, as amended, provides for a royalty to be paid to the University equal to 2% of net sales of products containing the licensed technology sold by the Company.

COBE BCT, INC. - In connection with the issuance of the Series C Preferred Stock to Cobe Laboratories, Inc. in October 1993, the Company and Cobe BCT, Inc. (collectively with Cobe Laboratories, Inc referred to as Cobe), an affiliate of Cobe, entered into an agreement which granted to Cobe exclusive worldwide distribution and marketing rights to the AastromReplicell(TM)

Cell Production System (System) for stem cell therapy applications (Distribution Agreement). The Company is implementing the initial European market introduction of the AastromReplicell(TM) System and related therapy kits for the production of either bone marrow derived cells or umbilical cord blood cells used in stem cell therapy. Following market introduction of the AastromReplicell(TM) System for stem cell therapy, development of additional therapy kits can be pursued for a number of emerging cell therapies being developed by others. Such other cell therapy applications were outside of the scope of the Distribution Agreement and outside of Cobe's area of focus. Accordingly, by mutual agreement, the Company and Cobe terminated the Distribution Agreement in November 1998. In connection with the termination of the Distribution Agreement, Cobe made a cash payment to Aastrom totaling $1,237,000, which is reflected as other income in the accompanying financial statements. Cobe currently owns approximately 2.4 million shares of the Company's common stock, and as part of the termination agreement, Cobe has agreed not to sell any such shares until at least January 1, 2001.

MANUFACTURE, SUPPLY AND OTHER AGREEMENTS - The Company has entered into various agreements relating to the manufacture of its products and supply of certain components. Pursuant to one such agreement, the Company makes annual renewal fees of $1,000,000, due in March of each year during the term of the agreement, which ends in 2001 unless extended by the Company. The Company and the licensor amended this agreement to provide for the issuance of $1,100,000 in Common Stock by the Company as payment for an annual renewal fees due in March, 1998 and 1999. A similar agreement is in place for the payment due in March 2000. The accompanying financial statements reflect charges to research and development expense of $1,000,000 for the year ended June 30, 1997 and $1,100,000 for the years ended June 30, 1998 and 1999.

In September 1995, the Company entered into a research and development collaboration which was completed in September 1996. Under this collaboration, the Company received $3,500,000 in equity payments and recognized $1,538,000 in research revenue.

7. ZELLERA AG

In May 1999, the Company formed Zellera AG (Zellera) as a wholly-owned subsidiary based in Berlin, Germany. The formation of Zellera is intended to provide access to additional funding and collaboration opportunities in new product areas and to also support Aastrom's European product commercialization efforts. Initial funding for Zellera is being pursued, which is planned to consist of a combination of investment capital, loans and subsidies from the German government. With this potential funding, Zellera will have access to Aastrom's intellectual property base for human cell therapies and will develop new product areas. Subsequent to June 30, 1999, Aastrom has made commitments totaling up to $530,000 related to initial start up activities for Zellera's operations.

8. COMMITMENTS

The Company leases its facility under an operating lease which expires in August 2000. The Company has the option to renew the lease for an additional period of up to five years and has certain expansion options.

Future minimum payments under non-cancelable operating leases are as follows:

Year Ending June 30,	Operating Leases
2000	$ 540,000
2001	93,000
Total minimum lease payments	$ 633,000

Rent expense for the years ended June 30, 1997, 1998 and 1999, was $456,000, $487,000 and $560,000, respectively, and $2,334,000 for the period from Inception to June 30, 1999.

9. EMPLOYEE SAVINGS PLAN

The Company has a 401(k) plan that allows participating employees to contribute up to 15% of their salary, subject to annual limits and minimum qualifications. The Board may, at its sole discretion, approve Company contributions. Through June 30, 1999, the Company has made no contributions to the plan.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

There are none to report.

PART III

Certain information required by Part III is omitted from this Report, and is incorporated by reference to Aastrom's definitive Proxy Statement to be filed with the Securities and Exchange Commission pursuant to Regulation 14A in connection with its Annual Meeting of Shareholders to be held on November 17, 1999.

ITEM 10. DIRECTORS AND EXECUTIVE OFFICERS OF THE REGISTRANT

The information relating to the directors of Aastrom is incorporated by reference to the Proxy Statement as set forth under the caption "General Information -- Board of Directors." Information relating to the executive officers of Aastrom is set forth in Part I of this Report under the caption "Executive Officers of Aastrom."

Information with respect to delinquent filings pursuant to Item 405 of Regulation S-K is incorporated by reference to the Proxy Statement as set forth under the caption "Section 16(a) Beneficial Ownership Reporting Compliance."

ITEM 11. EXECUTIVE COMPENSATION

The information relating to executive compensation is incorporated by reference to the Proxy Statement under the caption "Executive Compensation and Other Matters."

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The information relating to ownership of equity securities of Aastrom by certain beneficial owners and management is incorporated by reference to the Proxy Statement as set forth under the caption "General Information -- Stock Ownership of Certain Beneficial Owners and Management."

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

The information relating to certain relationships and related transactions is incorporated by reference to the Proxy Statement under the captions "Certain Transactions" and "Compensation Committee Interlocks and Insider Participation."

PART IV

ITEM 14. EXHIBITS, FINANCIAL STATEMENT SCHEDULES AND REPORTS ON FORM 8-K

(A) THE FOLLOWING DOCUMENTS ARE FILED AS PART OF THIS REPORT:

1. FINANCIAL STATEMENTS.

2. FINANCIAL STATEMENT SCHEDULE:

All schedules are omitted because they are not applicable or not required, or because the required information is included in the Financial Statements or Notes thereto.

3. EXHIBITS:

See Exhibit Index.

(B) REPORTS ON FORM 8-K:

On June 4, 1999, Aastrom filed with the Securities and Exchange Commission a Current Report on Form 8-K that contains disclosure under Item 5.

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 to be signed on its behalf by the undersigned, thereunto duly authorized.

Date: September 20, 1999 AASTROM BIOSCIENCES, INC.

By: /s/ R. Douglas Armstrong, Ph.D.

R. Douglas Armstrong, Ph.D.
President and Chief Executive Officer
(Principal Executive Officer)

Pursuant to the requirements of the Securities Exchange Act of 1934, this Report has been signed below on September 20, 1999 by the following persons in the capacities indicated.

Signature	Title
/s/ R. Douglas Armstrong, Ph.D. R. Douglas Armstrong, Ph.D.	President, Chief Executive Officer and Director (Principal Executive Officer)
/s/ Todd E. Simpson Todd E. Simpson	Vice President, Finance & Administration, Chief Financial Officer, Secretary and Treasurer (Principal Financial and Accounting Officer)
/s/ Robert J. Kunze Robert J. Kunze	Chairman of the Board and Director
/s/ Mary L. Campbell Mary L. Campbell	Director
Stephen G. Emerson, M.D., Ph.D.	Director
/s/ Arthur F. Staubitz Arthur F. Staubitz	Director
/s/ Joseph A. Taylor Joseph A. Taylor	Director

EXHIBIT INDEX

EXHIBIT NUMBER	Description of Document
3.1*	Restated Articles of Incorporation of Aastrom.
3.2**	Bylaws, as amended.
4.1**	Specimen Common Stock Certificate.
4.2**	Amended and Restated Investors' Rights Agreement, dated April 7, 1992.
10.1**#	Form of Indemnification Agreement.
10.2**#	Amended and Restated 1992 Incentive and Non-Qualified Stock Option Plan and forms of agreements thereunder.
10.3**#	1996 Outside Directors Stock Option Plan and forms of agreements thereunder.
10.4**#	1996 Employee Stock Purchase Plan and form of agreement thereunder.
10.7**	Lease Agreement, dated May 18, 1992, between Domino's Farms Holdings, L.P. and Aastrom and amendments thereto dated February 26, 1993, October 3, 1994, November 16, 1994 and July 29, 1996.
10.8**#	Promissory Note, dated November 18, 1993, for $120,000 loan by Aastrom to R. Douglas Armstrong, Ph.D. and amendment thereto dated October 30, 1996.
10.16**	Collaborative Supply Agreement, dated December 16, 1996, between Aastrom and Anchor Advanced Products, Inc. Mid-State Plastics Division.
10.20**#	Form of Employment Agreement.
10.21**	License Agreement, dated July 17, 1992, between J.G. Cremonese and Aastrom and related addenda thereto dated July 14, 1992 and July 7, 1993.
10.22**+	Collaborative Product Development Agreement, dated May 10, 1994, between SeaMED Corporation and Aastrom.
10.23**+	Collaborative Product Development Agreement, dated November 8, 1994, between Ethox Corporation and Aastrom.
10.24**+	License and Supply Agreement, dated April 1, 1996, between Immunex Corporation and Aastrom.
10.26**	License Agreement, dated March 13, 1992, between Aastrom and the University of Michigan and amendments thereto dated March 13, 1992, October 8, 1993 and June 21, 1995.
10.27**#	Employee Proprietary Information and Invention Agreement, effective June 1, 1991, between Aastrom and R. Douglas Armstrong, Ph.D.
10.29**#	Employment Agreement, dated December 8, 1995, between Aastrom and Todd E. Simpson.
10.32**#	Employment Agreement, dated October 26, 1995, between Aastrom and Alan K. Smith, Ph.D.
10.40****	Amendment to License and Supply Agreement, dated August 25, 1997, between Immunex Corporation and Aastrom.
10.41+	Manufacturing Supply Agreement, dated as of August 14, 1998, by and between Aastrom and SeaMED Corporation.
10.42#%	Employment Agreement, dated August 10, 1998, by and between Aastrom and Bruce Husel.

10.42#	Employment Agreement, dated August 10, 1998, by and between Aastrom and William Odell.
10.43%	Strategic Planning Consulting Services and Collaboration Agreement, dated October 7, 1997, between Burrill & Company, LLC and Aastrom.
10.44*****	1998 Series I Preferred Stock Agreements.
10.45******	1999 Series III Preferred Stock Agreements.
10.46	Executive Retention and Severance Agreement, Dated February 2, 1999, between Aastrom and R. Douglas Armstrong.
10.47*******	Cobe Termination and Transition Agreement.
10.48*******	Supplemental Agreement to Cobe Termination and Transition Agreement.
23.1	Consent of Independent Accountants
27.1	Financial Data Schedule.

- ----------

* Incorporated by reference to Aastrom's Quarterly Report on Form 10-Q for the quarter ended December 31, 1996, as filed on March 7, 1997.

** Incorporated by reference to Aastrom's Registration Statement on Form S-1 (No. 333-15415), declared effective on February 3, 1997.

*** Incorporated by reference to Aastrom's Current Report on Form 8-K, as filed on July 16, 1997.

**** Incorporated by reference to Aastrom's Annual Report on Form 10-K for the year ended June 30, 1997, as filed on September 25, 1997.

***** Incorporated by reference to Aastrom's Current Report on Form 8-K, as filed on July 15, 1998.

****** Incorporated by reference to Aastrom's Current Report on Form 8-K, as filed on June 4, 1999.

******* Incorporated by reference to Aastrom's Quarterly Report on Form 10-Q for the quarter ended December 31, 1998, as filed on February 11, 1999.

% Incorporated by reference to Aastrom's Registration Statement on Form S-1 (No. 333-37439), as filed on October 8, 1997.

\+ Confidential treatment has been requested as to a portion of this exhibit.

\# Management contract or compensatory plan or arrangement covering executive officers or directors of Aastrom.

EXHIBIT 10.46

AASTROM BIOSCIENCES, INC.

EXECUTIVE RETENTION AND SEVERANCE AGREEMENT

This Executive Retention and Severance Agreement (the "Agreement") is made and entered into, effective as of February 2, 1999 (the "Effective Date"), by and between Aastrom Biosciences, Inc., a Michigan corporation (the "Company"), and R. Douglas Armstrong, Ph.D., an individual ("Executive").

RECITALS

A. Executive presently serves as the President and Chief Executive Officer of the Company and performs significant strategic and management responsibilities necessary to the continued conduct of the Company's business and operations.

B. The Board of Directors of the Company (the "Board") has determined at its Board meeting held on January 28, 1999, that it is in the best interests of the Company and its shareholders to assure that the Company will have the continued dedication and objectivity of Executive, notwithstanding the possibility or occurrence in the future of a Change in Control (as defined below) event for the Company.

C. The Board believes that it is important to provide Executive with certain severance benefits upon the circumstances described below, in order to provide Executive with enhanced financial security and provide sufficient incentive and encouragement to Executive to remain with the Company, even though there is no Change of Control event scheduled or pending at this time.

D. Certain capitalized terms used in the Agreement are defined in Section 5 below.

AGREEMENT

In consideration of the mutual covenants herein contained, and in consideration of the continuing employment of Executive by the Company, the parties agree as follows:

1. Terms of Employment. The Company and Executive acknowledge and agree that (a) Executive's employment currently is "at will" and that their employment relationship may be terminated by either party at any time, with or without cause, and (b) Executive is entitled to a six-months severance pay pursuant to the terms of the original hiring letter agreement for Executive's employment with the Company. Executive agrees to devote his full business time, energy and skill to his duties with the Company. These duties shall include, but not be limited to, any duties consistent with Executive's position which may be assigned to Executive from time to time.

2. Existing Stock Options.

a. Repurchase Right. The Company previously granted to Executive two stock options which are fully exercisable by Executive at this time. However, the Company retains a right to repurchase shares purchased by Executive upon exercise of the options, which repurchase right lapses on a prorata basis over the 24-month period immediately following the date of the grant of the stock options. Accordingly, said repurchase right lapses by July 2000 for one option and by November 2000 for the second option.

b. Assumption of Options. Notwithstanding any provision to the contrary contained in any agreement evidencing an option to purchase shares of the capital stock of the Company granted by the Company to Executive, in the event of a Change in Control, the surviving, continuing, successor, or purchasing corporation or parent corporation thereof, as the case may be (the "Acquiring Corporation"), shall either assume the Company's rights and obligations under all then-outstanding options granted to Executive or substitute for such options substantially equivalent options for the Acquiring Corporation's stock.

c. Cessation of Repurchase Right. Subject to the limitation set forth in Section 4, in the event that the Acquiring Corporation fails to assume the Company's rights and obligations under Executive's outstanding options or substitute for such options in connection with the Change in Control, Executive's outstanding options shall cease to be subject to the Company's repurchase right as of the date of the Change in Control. Further, if the Acquiring Corporation does so assume the outstanding options or substitute new equivalent options, but there is a Termination Upon Change of Control, then all outstanding options granted to Executive by the Company or any member of the Company Group shall cease to be subject to the repurchase right as of the date of Executive's termination of employment.

3. Severance Benefits.

a. Termination Upon Change in Control. In the event of Executive's Termination Upon Change in Control, in addition to all compensation and benefits earned by Executive through the date of Executive's termination of employment, Executive shall be paid a lump sum payment (the "Cash Severance Payment") equal to the maximum whole dollar amount which, when added to all other compensation and benefits treated as parachute payments, if any, under Section 280G of the Code, does not result in any compensation or benefit pursuant to this Agreement becoming subject to an excise tax pursuant to Section 4999 of the Code. Unless the Company and Executive otherwise agree in writing, within thirty (30) days after the date of the Executive's termination of employment, the amount of the Cash Severance Payment shall be determined and reported in writing to the Company and Executive by independent public accountants agreed to by the Company and Executive (the "Accountants"). Such determination by the Accountants shall be conclusive and binding upon the Company and Executive for all purposes. For the purposes of such determination, the Accountants may rely on reasonable, good faith interpretations concerning the application of Sections 280G and 4999 of the Code. The Company and Executive shall furnish to the Accountants such information and documents as the Accountants may reasonably request in order to make their required determination. The Company shall bear all fees and expenses the Accountants may reasonably charge in connection with their services contemplated by this Section 3(b). The Company shall pay the Cash Severance Payment to the Executive within ten (10) days after the date of the Accountants' report of their determination.

b. Relocation Costs. Upon any termination of Executive's employment with the Company, except for a termination for Cause by the Company, the Company shall reimburse Executive for the costs for Executive to relocate to another city in the United States, up to an aggregate of $50,000 of relocation costs, to the extent said relocation costs are incurred within one year following the termination of employment. Any tax payable with respect to said relocation cost reimbursement shall be the responsibility of Executive.

c. Continued Medical Coverage. Executive shall be entitled to elect continued medical insurance coverage in accordance with applicable provisions of the Consolidated Budget Reconciliation Act of 1985 ("COBRA").

4. Excess Parachute Payment. In the event that any payment or benefit received or to be received by Executive pursuant to this Agreement or otherwise would subject Executive to any excise tax pursuant to Section 4999 of the Code due to the characterization of such payment or benefit as an excess parachute payment under Section 280G of the Code, Executive may elect in his sole discretion to reduce the amounts of any payments or benefits otherwise called for under this Agreement in order to avoid such characterization.

5. Definition of Terms. Capitalized terms used in this Agreement shall have the following meanings:

a. "Cause" means the occurrence of any of the following, as determined by the Board, in good faith:

i. Executive's theft, material act of dishonesty or fraud, or intentional falsification of any records of any member of the Company Group;

ii. Executive's improper use or disclosure of confidential or proprietary information of any member of the Company Group;

iii. Executive's gross negligence or willful misconduct in the performance of Executive's assigned duties (but not mere unsatisfactory performance); or

iv. Executive's conviction (including any plea of guilty or nolo contendere) of a crime of moral turpitude causing material harm to the reputation or standing of the Company Group or which materially impairs Executive's ability to perform his duties with the Company Group.

b. "Change in Control" shall means the occurrence of any of the following:

i. any "person" (as such term is used in Sections 13(d) and 14(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act")), other than a trustee or other fiduciary holding securities of the Company under an employee benefit plan of the Company, becomes the "beneficial owner" (as defined in Rule 13d-3 promulgated under the Exchange Act), directly or indirectly, of securities of the Company representing 50% or more of (A) the outstanding shares of common stock of the Company or (B) the combined voting power of the Company's then-outstanding securities;

ii. the Company is party to a merger or consolidation which results in the holders of voting securities of the Company outstanding immediately prior thereto failing to continue to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity) at least 50% of the combined voting power of the voting securities of the Company or such surviving entity outstanding immediately after such merger or consolidation;

iii. the sale or disposition of all or substantially all of the Company's assets (or consummation of any transaction having similar effect);

iv. a change in the composition of the Board of Directors of the Company within a three-year period as a result of which fewer than a majority of the directors are Incumbent Directors; or

v. the dissolution or liquidation of the Company by the Acquiring Corporation (but not a dissolution by the Company when there is no actual or contemplated Change of Control).

c. "Code" means the Internal Revenue Code of 1986, as amended or any successor thereto, and any applicable regulations promulgated thereunder.

d. "Company" means Aastrom Biosciences, Inc., a Michigan corporation, and, following a Change in Control, any Successor that agrees to assume all of the terms and provisions of this Agreement, or a Successor which otherwise becomes bound by operation of law to this Agreement.

e. "Company Group" means the Company and each parent or subsidiary corporation of the Company.

f. "Good Reason" means the occurrence of any of the following conditions following a Change in Control, without Executive's informed written consent, which condition(s) remain(s) in effect ten (10) days after written notice to the Company from Executive of such condition(s):

i. assignment of Executive to responsibilities or duties that are not a Substantive Functional Equivalent of the position which Executive occupied prior to the Change in Control;

ii. a material decrease in Executive's base salary or target bonus amount (subject to applicable performance requirements with respect to the actual amount of bonus compensation earned by Executive);

iii. any failure by the Company to (A) continue to provide Executive with the opportunity to participate, on terms no less favorable than those in effect for the benefit of any employee group which customarily includes a person holding the employment position or a comparable position with the Company Group then held by Executive, in any benefit or compensation plans and programs, including, but not limited to, the Company Group's life, disability, health, dental, medical, savings, profit sharing, stock purchase and retirement plans, if any, in which Executive was participating immediately prior to the date of the Change in Control, or their equivalent, or (B) provide Executive with all other fringe benefits (or their equivalent) from time to time in effect for the benefit of any employee group which customarily includes a person holding the employment position or a comparable position with the Company Group then held by Executive;

iv. the relocation of Executive's work place for the Company to a location more than 25 miles from the location of the work place prior to the Change in Control, or the imposition of travel requirements substantially more demanding of Executive that such travel requirements existing immediately prior to the Change in Control; or

v. any material breach of this Agreement by the Company.

g. "Incumbent Director" means a director who either (i) is a director of the Company as of the Effective Date of this Agreement, or (ii) is elected, or nominated for election, to the Board with the affirmative votes of at least a majority of the Incumbent Directors at the time of such election or nomination, but (iii) was not elected or nominated in connection with an actual or threatened proxy contest relating to the election of directors to the Company.

h. "Permanent Disability" means that:

i. Executive has been incapacitated by bodily injury, illness or disease so as to be prevented thereby from engaging in the performance of Executive's duties;

ii. such total incapacity shall have continued for a period of six (6) consecutive months; and

iii. such incapacity will, in the opinion of a qualified physician, be permanent and continuous during the remainder of the Executive's life.

i. "Substantive Functional Equivalent" means an employment position occupied by Executive after a Change in Control that:

i. is in a substantive area of competence consistent with Executive's experience and not materially different from the position occupied by Executive prior to the Change in Control;

ii. requires Executive to serve in a role and perform duties that are functionally equivalent to those performed prior to the Change in Control (such as, executive officer);

iii. carries a title that does not connote a lesser rank or corporate role than the title held by Executive prior to the Change in Control;

iv. does not otherwise constitute a material, adverse change in Executive's responsibilities or duties, as measured against Executive's responsibilities or duties prior to the Change in Control, causing it to be of materially lesser rank or responsibility;

v. is identified as an executive officer, for purposes of the rules promulgated under Section 16 of the Securities Exchange Act of 1934, as amended, of a publicly traded Successor having net assets and annual revenues no less than those of the Company prior to the Change in Control; and

vi. reports directly to a board chairman, committee or board of directors of the Successor that is no less senior than the board chairman, committee or board, as the case may be, to whom Executive reported at the Company prior to the Change in Control.

j. "Successor" means the Company as defined above and any successor or assign to substantially all of its business and/or assets.

k. "Termination Upon Change in Control" means the occurrence of either of the following events:

i. termination by the Company Group of Executive's employment for any reason other than Cause during the period commencing thirty (30) days prior to the date that the Company first considered conducting negotiations leading to the Change in Control event, and ending on the date which is twelve (12) months after the Change in Control; or

ii. any resignation by the Executive from all capacities in which Executive is then rendering service to the Company Group within twelve (12) months following a Change in Control;

provided, however, that Termination Upon Change in Control shall not include any termination of Executive's employment which is (1) for Cause, or (2) a result of Executive's death or Disability.

6. Resignation. Executive's entitlement to any compensation or benefits under Section 3 (other than compensation and benefits earned by Executive through the date of Executive's termination of employment) is conditioned upon Executive's resignation from all capacities in which Executive is then rendering services to the Company Group, including from the Board and any committees thereof on which Executive serves.

7. Exclusive Remedy. The payments and benefits provided for in Section 3 shall constitute Executive's sole and exclusive remedy for any alleged injury or other damages arising out of the cessation of the employment relationship between Executive and the Company in the event of Executive's Termination Upon Change in Control. Executive shall be entitled to no other compensation, benefits, or other payments from the Company as a result of any termination of employment with respect to which the payments and/or benefits described in Section 3 have been provided to Executive, except as expressly set forth in this Agreement or, subject to the provisions of Sections 8 and 15(c), in a duly executed employment agreement between Company and Executive.

8. Conflict in Benefits; Noncumulation of Benefits.

a. Effect of Agreement. This Agreement shall supersede all prior arrangements, whether written or oral, and understandings regarding the subject matter of this Agreement and shall be the exclusive agreement for the determination of any payments due to Executive upon Executive's Termination Upon Change in Control and accelerated vesting of stock options granted to Executive by the Company due upon Executive's

Termination Upon Change in Control or upon nonassumption of such options as provided in Section 2, except as provided in Subsections(b) and (c) below and Section 15(c).

b. No Limitation of Regular Benefit Plans. This Agreement is not intended to and shall not affect, limit or terminate any plans, programs, or arrangements of the Company that are regularly made available to a significant number of employees or officers of the Company, including without limitation the Company's stock option plans.

c. Noncumulation of Benefits. Executive may not cumulate cash severance payments and stock option acceleration benefits under both this Agreement and another agreement. If Executive has any other binding written agreement with the Company which provides that, upon a Change in Control or termination of employment, Executive shall receive one or more of the benefits described in Sections 2 and 3 of this Agreement (i.e., the payment of cash compensation or acceleration of vesting of stock options), then with respect to those benefits the aggregate amounts payable under this Agreement shall be reduced by the amounts paid or payable under such other agreements.

9. Release of Claims. The Company may condition the stock option acceleration described in Section 3(a) and payment of the Cash Severance Payment described in Section 3(b) upon the delivery by Executive of a signed release of claims in a form reasonably satisfactory to the Company.

10. Proprietary and Confidential Information. Executive agrees to continue to abide by the terms and conditions of the confidentiality and/or proprietary rights agreement between Executive and the Company.

11. Nonsolicitation.

a. Agreement Not to Solicit. If the Company performs its obligations to deliver the severance benefits set forth in Section 3, then for a period of one (1) year after Executive's Termination Upon Change of Control, Executive shall not, directly or indirectly, solicit the services or business of or in any other manner persuade any employee, distributor, vendor, representative or customer of the Company to discontinue that person's or entity's relationship with or to the Company.

b. Other Agreements Not Superseded. Subsection (a) of this Section shall not supersede or limit the terms, including more restrictive terms, of any other agreement by Executive to refrain from competition with or from soliciting any the employees, distributors, vendors, representatives or customers of Company.

12. Arbitration.

a. Disputes Subject to Arbitration. Any claim, dispute or controversy arising out of this Agreement, the interpretation, validity or enforceability of this Agreement or the alleged breach thereof shall be submitted by the parties to binding arbitration by the American Arbitration Association; provided, however, that (i) the arbitrator shall have no authority to make any ruling or judgment that would confer any rights with respect to the trade secrets, confidential and proprietary information or other intellectual property of the Company upon Executive or any third party; and (ii) this arbitration provision shall not preclude the Company from seeking legal and equitable relief from any court having jurisdiction with respect to any disputes or claims relating to or arising out of the misuse or misappropriation of the Company's intellectual property. Judgment may be entered on the award of the arbitrator in any court having jurisdiction.

b. Site of Arbitration. The site of the arbitration proceeding shall be in Ann Arbor, Michigan.

c. Costs and Expenses Borne by Company. All costs and expenses of arbitration or litigation, including but not limited to reasonable attorneys fees and other costs reasonably incurred by Executive, shall be paid by the Company. Notwithstanding the foregoing, if Executive initiates the arbitration or litigation, and

the finder of fact finds that Executive's claims were totally without merit or frivolous, then Executive shall be responsible for Executive's own attorneys' fees and costs.

13. Successors and Assigns.

a. Successors of the Company. The Company shall require any successor or assign (whether direct or indirect, by purchase, merger, consolidation or otherwise) to all or substantially all of the business and/or assets of the Company, expressly, absolutely and unconditionally to assume and agree to perform this Agreement in the same manner and to the same extent that the Company would be required to perform it if no such succession or assignment had taken place. Failure of the Company to obtain such agreement shall be a material breach of this Agreement.

b. Acknowledgment by Company. If, after a Change in Control, the Company (or any Successor) fails to reasonably confirm that it has performed the obligation described in Section 13(a) within ten (10) days after written notice from Executive, Executive shall be entitled to terminate Executive's employment with the Company for Good Reason, and to receive the benefits provided under this Agreement in the event of Termination Upon Change in Control.

c. Heirs and Representatives of Executive. This Agreement shall inure to the benefit of and be enforceable by the Executive's personal and legal representatives, executors, administrators, successors, heirs, distributees, devises and legatees.

14. Notices.

a. General. Notices and all other communications contemplated by this Agreement shall be in writing and shall be deemed to have been duly given when personally delivered or when mailed by U.S. registered or certified mail, return receipt requested and postage prepaid. In the case of Executive, mailed notices shall be addressed to Executive at the home address which he most recently communicated to the Company in writing. In the case of the Company, mailed notices shall be addressed to its corporate headquarters, and all notices shall be directed to the attention of its Secretary.

b. Notice of Termination. Any termination by the Company of Executive's employment for Cause or by Executive as a result of a voluntary resignation or resignation for Good Reason shall be communicated by a notice of termination to the other party hereto given in accordance with Subsection 14(a). Such notice shall indicate the specific termination provision in this Agreement relied upon, shall set forth in reasonable detail the facts and circumstances claimed to provide a basis for termination under the provision so indicated, and shall specify the termination date (which shall be not more than 15 days after the giving of such notice).

15. Miscellaneous Provisions.

a. No Duty to Mitigate. Executive shall not be required to mitigate the amount of any payment contemplated by this Agreement (whether by seeking employment with a new employer or in any other manner), nor shall any such payment be reduced by any earnings that Executive may receive from any other source except as otherwise provided herein.

b. No Representations. Executive acknowledges that in entering into this Agreement, Executive is not relying and has not relied on any promise, representation or statement made by or on behalf of the Company which is not set forth in this Agreement.

c. Amendment. This Agreement may be modified, amended or superseded only by a supplemental written agreement signed with the same formality as this Agreement by Executive and by the Company. However, the noncumulation of benefits provision of Section 8(c) shall apply to any subsequent agreement, unless (i) such provision is explicitly disclaimed in the subsequent agreement, and (ii) the subsequent agreement has been authorized by the Board or a committee thereof.

d. Waiver. No waiver by either party of any breach of, or of compliance with, any condition or provision of this Agreement by the other party shall be considered a waiver of any other condition or provision or of the same condition or provision at another time.

e. Choice of Law. The validity, interpretation, construction and performance of this Agreement shall be governed by the laws of the State of Michigan.

f. Validity. If any one or more of the provisions (or any part thereof) of this Agreement shall be held invalid, illegal or unenforceable in any respect, the validity, legality and enforceability of the remaining provisions (or any part thereof) shall not in any way be affected or impaired thereby.

g. No Assignment of Benefits. The rights of any person to payments or benefits under this Agreement shall not be made subject to option or assignment, either by voluntary or involuntary assignment or by operation of law, including (without limitation) bankruptcy, garnishment, attachment or other creditor's process, and any action in violation of this subsection (g) shall be void.

h. Tax Withholding. All payments made pursuant to this Agreement will be subject to withholding of applicable income and employment taxes.

i. Counterparts. This Agreement may be executed in counterparts, each of which shall be deemed an original, but all of which together will constitute one and the same instrument.

j. Consultation with Legal and Financial Advisors. Executive acknowledges that this Agreement confers significant legal rights, and may also involve the waiver of rights under other agreements; that Company has encouraged Executive to consult with Executive's personal legal and financial advisers; and that Executive has had adequate time to consult with Executive's advisers before signing this agreement.

IN WITNESS WHEREOF, each of the parties has executed this Agreement, in the case of the Company by its duly authorized officer, as of the day and year first above written.

AASTROM BIOSCIENCES, INC.

By: /s/ Robert J. Kunze

Title: Chairman

EXECUTIVE

/s/ R. Douglas Armstrong, Ph.D.

R. Douglas Armstrong, Ph.D.

EXHIBIT 23.1

CONSENT OF INDEPENDENT ACCOUNTANTS

We hereby consent to the incorporation by reference in the Registration Statement on Form S-8 (No. 333-25021) and Form S-3 (No. 333-60125) of Aastrom Biosciences, Inc. of our report dated August 13, 1999 relating to the financial statements, which appears in this Annual Report on Form 10-K.

/s/ PRICEWATERHOUSECOOPERS LLP
PRICEWATERHOUSECOOPERS LLP

Minneapolis, Minnesota
September 17, 1999

THIS SCHEDULE CONTAINS SUMMARY FINANCIAL INFORMATION EXTRACTED FROM THE
COMPANY'S ANNUAL REPORT ON FORM 10-K FOR THE YEAR PERIOD ENDED JUNE 30, 1999,
AND IS QUALIFIED IN ITS ENTIRETY BY REFERENCE TO SUCH FINANCIAL STATEMENTS

12-MOS	
JUN-30-1999	
JUL-01-1998	
JUN-30-1999	
7,528,000	
0	
0	
0	
1,144,000	
9,038,000	
2,982,000	
2,480,000	
9,540,000	
1,029,000	
0	
0	
6,588,000	
72,257,000	
(70,334,000)	
9,540,000	
34,000	
881,000	
6,000	
13,713,000	
0	
0	
4,000	
(11,028,000)	
0	
(11,028,000)	
0	
0	
0	
(11,028,000)	
(.75)	
(.75)	