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, 2000

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[_] 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 (State or other jurisdiction of incorporation or organization)

94-3096597 (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 11, 2000 was approximately \$91 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 12, 2000, 33,842,388 shares of Common Stock, no par value, were outstanding.

Document

Proxy Statement for the Annual Meeting of Shareholders scheduled for November 15, 2000

Form 10-K Reference

Items 10, 11, 12 and 13 of Part III $% \left(1,1,1\right) =\left(1,1,1\right) =\left($

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Except for the historical information presented, the matters discussed in this Report, including our product development goals and expectations, our plans and anticipated results of our clinical development activities and the potential advantage of our products and product candidates under development, 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." Unless the context requires otherwise, references to "we," "us," "our" and Aastrom refer to Aastrom Biosciences. Inc.

PART I

ITEM 1. BUSINESS

Overview

Aastrom Biosciences, Inc. is developing proprietary process technologies and devices intended for a broad range of cell therapy applications. The AastromReplicell(TM) System is our lead product under development, and consists of a clinical cell culture system that operates single-use therapy kits tailored for patient therapy in the emerging cell therapy market. In April 1999, we began European commercialization and a lead U.S. pivotal clinical trial of the AastromReplicell(TM) System for use in stem cell therapy was in process. However, in October 1999, we suspended marketing efforts and our U.S. clinical development activities until we could obtain additional funding. With recently received funding, we have recommenced our U.S. clinical development program, and we are resuming pilot-scale marketing activities in Europe with targeted medical centers.

For the current applications in stem cell therapy, we believe that the AastromReplicell(TM) System method of producing cells will be a cost-effective, less invasive and less time-consuming alternative, or improvement to, currently available stem cell collection methods and may enhance the clinical utility of umbilical cord blood transplants in patients with certain forms of leukemia and other blood diseases by expanding the number of cells available for transplant. Further, the AastromReplicell(TM) System is designed as a platform product which implements our pioneering cell production technology. Accordingly, we believe that the AastromReplicell(TM) System can be modified to produce a wide variety of other cell types for selected emerging therapies currently in development, and we either have, or plan to initiate, development programs targeted towards some of these emerging therapies.

Aastrom's business model builds on two components; (i) proprietary procedures and devices to enable certain types of stem cells and other types of human cells to be produced with superior biological capabilities as compared with standard cell culture approaches, and (ii) the AastromReplicell(TM) System clinical platform that is designed to standardize and enable an effective commercialization pathway for bringing therapeutic cell production to medical practice. The product configuration of the AastromReplicell(TM) System consists of an instrumentation platform, to be integrated within the hospital or other centralized facility, that can operate a variety of single-use therapy kits that are specific to the desired medical application. This is intended to provide a product pathway for each cell therapy that is similar to a pharmaceutical product including regulatory approval, reimbursement, marketing and pricing. We believe that the product design of the AastromReplicell(TM) System will allow us to develop additional cell therapy kits to provide product standardization for a number of emerging cell therapies being developed by other researchers.

Aastrom is currently developing its own SC-I Therapy Kit, CB-I Therapy Kit and CB-II Therapy Kit for use in stem cell therapy in cancer patients. Stem cell therapy is a form of cell therapy used to restore blood and immune system function to cancer patients following chemotherapy or radiation therapy. Current stem cell collection methods, including bone marrow harvest and peripheral blood progenitor cell mobilization, can be costly, invasive and time-consuming for both medical personnel and patients. Aastrom believes that the AastromReplicell(TM) System may offer significant advantages over traditional stem cell collection methods in settings where it is difficult to obtain the desired quantity of cells for transplant using the current cell collection methods. The AastromReplicell(TM) System is intended to be used to produce cells for stem cell therapy from a small starting volume of bone marrow or umbilical cord blood cells. 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. Tumor cells that were detectable after expansion in the AastromReplicell(TM) System showed a significant reduction in clonogenicity (the ability to replicate). We believe that the combination of passive tumor cell depletion during culture with the lower starting volume of cells used for the process may result in a procedure that offers a tumor-free or tumor-reduced cell product for transplant. Although we may not market the AastromReplicell(TM) System in the United States for stem cell therapy unless and until approval is obtained from the U.S. Food and Drug Administration (FDA), production-level versions of the AastromReplicell(TM) System have been completed and we have obtained permission to affix the CE Mark to such versions. CE Mark approval allows for marketing of the product in Europe. We may also market the AastromReplicell(TM) System in the U.S. for research and investigational use.

Aastrom has also recently initiated development programs for therapy kits to produce bone-forming cells and for dendritic cells. The new OC-I Therapy Kit is intended for the production of bone-forming cells for the treatment of patients with degenerative bone diseases such as osteoporosis. We expect to initiate our first Phase I/II-Pilot clinical study for the OC-I Therapy Kit in patients with severe osteoporosis shortly. The new DC-I Therapy Kit is being developed for the production of human dendritic cells to be used in cancer immunotherapy applications. Recent clinical studies conducted by others have been published indicating that modified dendritic cells may be an important new way to treat certain cancers.

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 transfusions. 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. More recently, emerging cell therapies are being developed utilizing T-cells and dendritic cells to stimulate an immune response in patients with various forms of cancers, infectious diseases or viral infections. These forms of cell therapy have 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 can be 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 met by a number of technical difficulties and a requirement to comply with stringent regulatory standards. These issues have limited the more 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 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 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 up to 30,000 stem cell transplant procedures are performed annually. This market size estimate has decreased from past estimates as a result of a recent change in medical practice reducing the number of breast cancer patients receiving this treatment. 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 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 (from Amgen, Inc.) and GM-CSF, such as Leukine (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. Another source of stem cells in the blood that can be collected from the placenta and umbilical cord that is otherwise discarded following the birth of a child.

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 one 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 is a 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 (CB), which is collected directly from the detached umbilical cord and placenta 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. Cord blood 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, CB is typically frozen for later use in a stem cell therapy procedure. Storage of CB samples involves small volumes of cells, compared to typical bone marrow or PBSC storage. Accordingly, the costs of collection and storage of CB cells are comparatively low. CB 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 CB can become a major supply source for stem cell therapy, a coordinated CB banking system must emerge. In this regard, several CB banking institutions have been established to date, and the group is growing in both number and size. The establishment of these CB banking institutions is an initial step which may lead to a coordinated CB 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 range 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 CB 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 CB 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 resulting low cell number is believed to be responsible for the longer hematopoietic recovery times observed with CB transplants, as compared with bone marrow or PBSC transplants. Further, because of the low cell number, CB transplants are typically restricted to small patients. Therefore, increasing the number of therapeutic cells from a CB sample may facilitate the more widespread use of CB transplants. Aastrom believes that providing the transplant site with the capability to carry out the CB cell expansion will be a major factor in the increased use of CB 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 other tissue-specific progenitor cells. Aastrom's lead product, 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 or improvement to, bone marrow harvest and PBSC mobilization methods and to enhance the clinical utility of CB 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

Human 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. The same medium-exchange perfusion approach that enables stem cells to grow, has been shown to improve the biological features of other types of human cells, compared with cells grown using standard cell culture techniques. 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 can produce cells on a clinical scale and allows for recovery of the cells for therapeutic use. Aastrom's pre-clinical data indicate that its cell culture chamber may also be used for growing various types of human therapeutic cells, such as stem cells, 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 has potential 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 could 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 Aastro'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 is currently being resumed in Europe and U.S. clinical trials are in process. 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 Kits, 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 System instruments. The microprocessorcontrolled 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 multiple 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. The product configuration of the AastromReplicell(TM) System consists of an instrumentation platform, to be integrated within the hospital or other centralized facility, that can operate a variety of single-use therapy kits that are specific to the desired medical application. This is intended to provide a product pathway for each cell therapy that is similar to a pharmaceutical product including regulatory approval, reimbursement, marketing and pricing. Aastrom believes that the product design of

the AastromReplicell(TM) System will allow us to develop additional cell therapy kits to provide a commercialization pathway for a number of emerging cell therapies being developed by other researchers.

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 certain 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, CB 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 CB cells is quantified, and an appropriate volume of cells is then inoculated into one or more AastromReplicell(TM) System 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 CB 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 CB 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 require 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 (CB) 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 CB transplants. The AastromReplicell(TM) System is designed to solve this dilemma by providing the capability to easily and cost-effectively expand CB 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. 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 sterilely-closed, 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 suboptimal 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 CB 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. 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 a transplant when they may not otherwise be CB transplant candidates due to low cell dose

availability. Aastrom plans to extend these trials into a randomized trial. Several CB 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 CB 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."

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 will require 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.'

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.

Dendritic cells are bone marrow-derived antigen presenting cells that are believed to play an important role in the function of the immune system. Dendritic cells, when exposed to cancers or other pathogens, can serve as "educator" cells for other cells 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.

In a study published in March 2000, researchers at three leading German medical centers reported positive results of a new dendritic cell-based therapy. In this study, renal cell carcinoma patients were treated with dendritic cells that had been produced outside of the body, and then fused with tumor cells collected from the patient. The modified dendritic cells, once injected into the patient, triggered an immune response against the cancer. The results indicated a major new treatment modality against renal cell cancer. Further, additional clinical trials are currently underway at leading cancer centers to demonstrate the effectiveness of this new therapeutic approach in multiple cancer types. Common to these new therapeutic approaches is the requirement to culture and activate the dendritic cells outside of the patient (ex vivo). In these initial trials, production of the dendritic cells is performed using manual research laboratory equipment, open culture processes and specialized personnel. In order for these procedures to receive regulatory approval and to be used in standard medical practice, Aastrom believes that they must be standardized and implemented through user-friendly, sterilely-closed, process-controlled products. The AastromReplicell(TM) System is designed to address this key need by enabling automated therapeutic dendritic cell production through a standardized product format.

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.

Solid Tissue Cell Therapies

Bone marrow stromal cells may also contribute to the repair of degenerative bone diseases such as osteoporosis. Over 10 million Americans are estimated to suffer from osteoporosis, a disease characterized by low bone mass and structural deterioration of bone tissue, leading to bone fragility and an increased susceptibility to fractures, especially of the hip, spine and wrist. Aastrom has completed pre-clinical work in this area and expects to initiate a clinical feasibility trial for use of the AastromReplicell(TM) System and the OC-I Therapy Kit to produce cells to treat osteoporosis. The trial will evaluate the AastromReplicell(TM) System to produce bone progenitor cells from a small amount of the patients own stem cells. The new expanded cells will then be infused intravenously with the intention to help restore the degenerated bone tissue. Trial results will focus on establishing safety and measuring bone formation, blood alkaline phosphatase and osteocalcin levels and bone catabolism.

A new form 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 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. 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).

One 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.

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 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."

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's technologies are intended to provide two capabilities in ex vivo 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 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, may inhibit ex vivo gene therapies from moving forward in the clinic. The Aastrom(TM) Gene Loader incorporates Aastrom's proprietary directed-motion gene transfer technology and is designed to overcome this limitation. 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), now a division company of Plexus Corporation. Pursuant to this agreement, Aastrom and SeaMED collaborated on the design of certain instrument components in the AastromReplicell(TM) System. 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 24month 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 from SeaMED.

In March 1996, Aastrom entered into a License and Supply Agreement with Immunex Corporation 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 allows for Aastrom to extend the term of the agreement for five years upon written notice, notice of which has been provided by Aastrom. The agreement provided for Immunex to receive up-front and renewal fees totaling \$5,500,000. Pursuant to agreements between Immunex and Aastrom, the annual fees due in March 1998, 1999 and 2000 were each paid by Aastrom through the issuance of \$1,100,000 in Aastrom's common stock. 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. 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. 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), now a division company of Moll Industries. 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 its ability to develop and deliver commercially feasible products on a timely and competitive basis. See "Business Risks."

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 over 20 issued U.S. patents, and non-exclusive rights to one other 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 we will not infringe any patents that may be issued 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 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.

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. 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 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. 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 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 lifesustaining 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 has conducted 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, a 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 the 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. These classifications apply 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 treated as 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 given the 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, Aastrom 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 its current status, any change in which would affect Aastrom's ability to sell the product and adversely affect Aastrom'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 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 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, 2000, Aastrom employed approximately 30 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 our employees to be good.

Executive Officers of Aastrom

The executive officers of Aastrom, and their respective ages as of August 31, 2000, are as follows:

Name	Age	Position
R. Douglas Armstrong, Ph.D Todd E. Simpson	47 39	President and Chief Executive Officer Vice President, Finance & Administration, Chief
Brian S. Hampson Bruce W. Husel	43 42	Financial Officer, Secretary and Treasurer Vice President, Product Development Vice President, Quality Systems and Regulatory Affairs

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 named the Burnham Institute, a 250-employee 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 Cytomedix, Inc.

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, a biotechnology company, which acquired Telios Pharmaceuticals, Inc. in August 1995. 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.

Brian S. Hampson joined Aastrom in July 1993 as Director, Product Engineering and became Vice President, Product Development in June 2000. He has been a principal leader in the development and engineering of the AastromReplicell(TM) System. Previously, Mr. Hampson served as Manager, In Vitro Systems at Charles River Laboratories and held other positions after joining that company in January 1986. While at Charles River, he managed a number of programs to develop and commercialize novel bioreactor systems to support largescale cell culture and biomolecule production. Prior to that, Mr. Hampson held several engineering positions at Corning Incorporated from September 1979 to January 1986, including assignments with KC Biological, a wholly owned subsidiary of Corning at the time. Mr. Hampson received his Bachelor of Science and Master of Engineering degrees in Electrical Engineering from Cornell University in 1978 and 1979, respectively.

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.

ITEM 2. PROPERTIES

Aastrom leases approximately 22,000 square feet of office and research and development space in Ann Arbor, Michigan. While such facilities have previously been leased under a long-term operating lease, Aastrom currently leases its facilities under a month-to-month lease. We believe that our facilities are adequate for our current needs. 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

- (a) A Special Meeting of Shareholders of Aastrom Biosciences, Inc. was held on May 9, 2000.
- (b) At the Special Meeting of Shareholders, votes were cast on matters submitted to the shareholders, as follows:
 - The vote to authorize Aastrom's Board of Directors to amend our Articles of Incorporation to increase the number of authorized shares of common stock up to 100,000,000 shares.

FOR	AGAINST	ABSTAIN
27,944,449	963,721	12,900

 The vote to approve the amendment of Aastrom's 1992 Incentive and Non-Qualified Stock Option Plan to increase the shares of common stock issuable thereunder by 1,400,000 and to establish a share grant limitation.

FOR	AGAINST	ABSTAIN		
27,868,325	1,031,895	20,850		

PART II

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

Since February 4, 1997 our 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

	High	Low	
Year ended June 30, 1999:			
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 June 30, 2000:			
1st Quarter	\$1 31/32	\$1 5/16	
2nd Quarter	1 5/16	7/16	
3rd Quarter	7 3/4	23/32	
4th Quarter	4 5/16	2	

As of August 31, 2000, there were approximately 315 holders of record of the common stock. Aastrom has never paid any cash dividends on our common stock and does not anticipate paying such cash dividends in the foreseeable future. We currently anticipate that we will retain all future earnings, if any, for use in the development of our business.

ITEM 6. SELECTED FINANCIAL DATA

The statement of operations data for the years ended June 30, 1998, 1999 and 2000 and for the period from March 24, 1989 (Inception) to June 30, 2000 and the balance sheet data at June 30, 1999 and 2000, are derived from, and are qualified by reference to, the audited consolidated financial statements included in this 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 years ended June 30, 1996 and 1997, and the balance sheet data at June 30, 1996, 1997 and 1998, are derived from audited consolidated financial statements not included herein. The data set forth below are qualified by reference to, and should be read in conjunction with, the consolidated financial statements and notes thereto and "Management's Discussion and Analysis of Financial Condition and Results of Operations."

	Year ended June 30,				March 24, 1989 (Inception) to June 30,	
	1996	1997	1998	1999	2000	2000
Statement of Operations Data: Revenues: Product sales and rentals Research and development agreements Grants	1,342,000	\$- 230,000 148,000	\$- 3,000 246,000	\$ 34,000 - 847,000	\$ 169,000 - 981,000	\$ 203,000 2,020,000 4,217,000
Total revenues		378,000	249,000	881,000	1,150,000	6,440,000
Costs and expenses: Cost of product sales and rentals (1) Research and development Selling, general and administrative Total costs and expenses	10,075,000 2,067,000 12,142,000	13,357,000 1,953,000 15,310,000	15,498,000 2,858,000 18,356,000	6,000 10,871,000 2,836,000 13,713,000	1,251,000 6,289,000 3,364,000 10,904,000	1,257,000 71,090,000 18,100,000 90,447,000
Loss from operations	(10,533,000)	(14,932,000)	(18,107,000)	(12,832,000)	(9,754,000)	(84,007,000)
Other income (expense): Other income Interest income Interest expense	678,000 (62,000)	676,000 (32,000)	- 886,000 (12,000)	1,237,000 571,000 (4,000)	- 364,000 -	1,237,000 4,073,000 (267,000)
Net loss				\$(11,028,000) ========	\$ (9,390,000) =======	
Net loss applicable to common shares		\$(14,288,000) =======			\$ (9,598,000) ======	
Net loss per common share (basic and diluted)	\$ (1.07) ======	\$ (1.27) ======	\$ (1.57) =======	\$ (.75) ======	\$ (.41) =======	
Weighted average number of common shares outstanding	9,269,000 ======	11,228,000 ======	13,363,000 ======	15,342,000 ======	23,344,000 ======	

	June 30,				
	1996	1997	1998	1999	2000
Balance Sheet Data:					
Cash, cash equivalents and short-term investments Working capital	\$ 10,967,000 9,851,000	<pre>\$ 17,007,000 15,600,000</pre>	<pre>\$ 11,212,000 10,121,000</pre>	\$7,528,000 8,009,000	<pre>\$ 12,745,000 12,143,000</pre>
Total assets Long-term capital lease	12,673,000	18,410,000	12,374,000	9,540,000	13,437,000
obligations Deficit accumulated during the	189,000	65,000	-	-	-
development stage Total shareholders' equity	(27,025,000) 10,850,000	(41,313,000) 16,583,000	(58,897,000) 10,846,000	(70,334,000) 8,511,000	(79,932,000) 12,435,000

1 - Cost of product sales and rentals for the year ended June 30, 2000 includes an inventory write down of \$1,027,000.

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

OVERVIEW

Since its inception, $\ensuremath{\mathsf{Aastrom}}$ 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. Aastrom commenced its initial pilot-scale product launch in Europe of the AastromReplicell(TM) Cell Production System (System) in April 1999, but subsequently suspended those activities in October 1999 pending the receipt of additional financing. Aastrom does not expect to generate positive cash flows from operations for at least the next several years and then only if more significant product sales commence. Until that time, Aastrom expects that its revenue sources will 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 our 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 our revenues from product sales will be subject to our obligation to make aggregate royalty payments of up to 2% to certain licensors of our technology. Research and development expenses may fluctuate due to the timing of expenditures for the varying stages of our research, product development and clinical development programs and the availability of resources. Generally, product development expenses have decreased as we have transitioned from prototype-versions to production-level versions of the AastromReplicell(TM) System. Operating expenses have also decreased over the past year as a result of cost reduction efforts that we have implemented. Clinical development costs are expected to increase as we conduct our U.S. clinical trials, successful completion of which are necessary to submit for regulatory approvals to market our products in the U.S. Similarly, marketing and other general and administrative expenses are expected to increase in support of European marketing activities as they resume. Under our license agreement with Immunex, the \$1,000,000 annual renewal fees due in March 1998, 1999 and 2000 were each paid through the issuance of \$1,100,000 of our common stock. As a result of these and other factors, our 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 results of operations for any future periods.

Except for the most recent years, our net loss has primarily increased, consistent with the growth in our scope and size of operations. In the two most recent years our net loss has decreased as development activities for our lead product candidate decreased. The scope and size of Aastrom's operations is typically tied to the availability of capital and other resources. For example, in October 1999, we were forced to implement significant cost reduction measures while we pursued corporate partnering, including merger or acquisition transactions, and sought additional capital. We completed the sale of equity securities in February 2000 and June 2000, providing aggregate net proceeds of \$11,800,000 and allowed Aastrom to resume certain activities. With recently received funding, we have recommenced our U.S. clinical development program, and we are resuming pilot-scale marketing activities in Europe with targeted medical centers. Aastrom needs to obtain additional financing and continues to pursue its financing options.

In order for us to resume more expanded operations, we will need to hire more personnel to address requirements in the areas of product and customer support, research, clinical and regulatory affairs, quality systems, sales and marketing and administration. Our operating expenses are expected to increase as a result. At least until such time as Aastrom enters into arrangements providing research and development funding or achieves greater product sales, we will continue to incur net operating losses. As a development-stage company, Aastrom has never been profitable and does not anticipate having net income unless and until significant product sales commence, which is unlikely to occur until we obtain significant additional funding. Through June 30, 2000, Aastrom has accumulated losses of \$78,964,000. There can be no assurance that we will be able to achieve profitability on a sustained basis, if at all, obtain the required funding, or complete a corporate partnering or acquisition transaction.

RESULTS OF OPERATIONS

Total revenues were \$1,150,000 in 2000, \$881,000 in 1999 and \$249,000 in 1998. In 2000 and 1999, revenues include product sales and rentals of \$169,000 and \$34,000, respectively, reflecting the pilot-scale launch of our lead product, the AastromReplicell(TM) System. Grant revenues increased to \$981,000 in 2000 from \$847,000 in 1999, and from \$246,000 in 1998, 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 85%, 96% and 99% of total revenues for the years ended June 30, 2000, 1999 and 1998, respectively, and are recorded on a cost-reimbursement basis.

Total costs and expenses were \$10,904,000 in 2000, \$13,713,000 in 1999 and \$18,356,000 in 1998. The decrease in costs and expenses in 2000 is principally the result of a decrease in research and development expense to \$6,289,000 from \$10,871,000 in 1999. Similarly, the decrease in costs and expenses in 1999 is principally the result of a decrease in research and development expense to \$10,871,000 from \$15,498,000 in 1998. These decreases reflect declining development activities for the AastromReplicell(TM) System that progressed into commercial launch during 1999 as well as cost reduction measures implemented in November 1998 and October 1999 intended to reduce overall operating expenses. Cost of product sales and rentals were \$1,251,000 in 2000 compared to \$6,000 in 1999, reflecting the pilot-scale European product launch of the AastromReplicell(TM) System in 1999. Cost of product sales and rentals in 2000, principally consisted of AastromReplicell(TM) System inventory that was written down in connection with the suspension of marketing activities. Research and development expense includes a charge of \$1,100,000 in 2000, 1999 and 1998, representing license fee payments pursuant to our supply agreement with Immunex. General and administrative expenses were \$3,364,000 in 2000, \$2,836,000 in 1999 and \$2,858,000 in 1998. General and administrative expenses increased in 2000, reflecting increased finance, legal and other administrative and marketing expenses in support of our product development, research and European activities.

Interest income was \$364,000 in 2000, \$571,000 in 1999 and \$886,000 in 1998. 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. Other income for the year ended June 30, 1999 includes \$1,237,000 representing a one-time payment that we received in November 1998.

Our net loss was \$9,390,000, or \$.41 per common share in 2000, \$11,028,000, or \$.75 per common share in 1999, and \$17,233,000, or \$1.57 per common share in 1998. The computations of net loss per common share include adjustments for dividends and yields on outstanding preferred stock as well as one-time charges related to the sale of 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. Aastrom expects to report additional substantial net losses until such time as more substantial product sales commence.

Aastrom has not generated any profits to date and therefore has not paid any federal income taxes since inception. At June 30, 2000, our Federal tax net operating loss and tax credit carryfowards were \$75,700,000 and \$2,100,000, respectively, which will expire from 2004 through 2020, if not utilized. In July 1998, we issued shares of 1998 Series I Convertible Preferred Stock which resulted in a change in ownership and an annual limitation of \$3,136,000, which applies to losses incurred between October 1993 and July 1998. As of June 2000, the portion of our net operating loss that remains subject to this limitation is \$44,000,000. Our ability to utilize its net operating loss and tax credit carryforwards may become subject to further annual limitation in the event of other change in ownership events.

LIQUIDITY AND CAPITAL RESOURCES

Aastrom has financed its operations since inception primarily through public and private sales of its equity securities, which, from inception through June 30, 2000, have totaled approximately \$92,367,000 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 us to maintain adequate levels of cash and other liquid investments.

Our combined cash, cash equivalents and short-term investments totaled \$12,745,000 at June 30, 2000, an increase of \$5,217,000 from June 30, 1999. During the year ended June 30, 2000, we raised net proceeds of \$12,209,000 through the sale of our equity securities. The primary uses of cash, cash equivalents and short-term investments during the year ended June 30, 2000 included \$6,856,000 to finance our operations and working capital requirements, and \$136,000 in capital equipment additions.

Our 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. Aastrom 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. Aastrom 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. Successful future operations are subject to several technical and business risks, including our continued ability to obtain future funding, satisfactory product development, obtaining regulatory approval and market acceptance for our products. Based on current funding and anticipated operating activities, Aastrom expects that its available cash and expected interest income will be sufficient to finance currently planned activities through mid calendar year 2001. 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 our Annual Report on Form 10-K, included herein. Aastrom is pursuing additional sources of financing. If it cannot obtain additional funding prior to its current cash reserves being depleted, we will be forced to make substantial reductions in the scope and size of our operations, and may be forced to curtail activities currently planned to be resumed. In order to grow and expand our business, and to introduce its product candidates into the marketplace, we will need to raise additional funds. Aastrom will also need additional funds or a collaborative partner, or both, to finance the research and development activities of its product candidates for the expansion of additional cell types. Aastrom 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 our ability to raise additional funding, including, but not limited to, market volatility of our 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, we 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 our business. See "Business Risks" and Notes to Consolidated Financial Statements included herein.

NEW ACCOUNTING STANDARDS

In June 1998, the Financial Accounting Standards Board (FASB) issued Statement of Financial Accounting Standards No. 133, "Accounting for Derivative Instruments and Hedging Activities," as subsequently amended. This statement establishes a new model for accounting for derivatives and hedging activities and require that all derivatives be recognized as assets and liabilities and measured at fair value. The new standards become effective for Aastrom beginning on July 1, 2000. Because we do not currently hold any derivative instruments and we do not engage in hedging activities, we do not expect the adoption of SFAS No. 133 and SFAS No. 138 to have a material impact on our financial position.

In December 1999, the Securities and Exchange Commission (SEC) issued Staff Accounting Bulletin No. 101, "Revenue Recognition in Financial Statements" (SAB 101) which provides guidance related to revenue recognition based on interpretations and practices followed by the SEC. Aastrom is in the process of analyzing the requirements of SAB 101, as amended, and is required to comply no later than the fourth quarter of fiscal year 2001. We have not yet determined the impact of SAB 101 on our consolidated financial statements, but do not expect the adoption of SAB 101 to have a material impact on our results of operations.

In April 2000, the FASB issued Financial Accounting Standards Board Interpretation Number 44 to APB 25, "Accounting for Certain Transactions Involving Stock Compensation and Interpretation of Accounting Principles Board Opinion No. 25," (Interpretation No. 44), which is effective July 1, 2000, except for certain conclusions which cover specific events after either December 15, 1998 or January 12, 2000. FASB Interpretation No. 44 clarifies the application of APB No. 25 related to modifications of stock options, changes in grantee status, and options issued on a business combination, among other things. As described in Note 3 of the consolidated financial statements, Interpretation No. 44 will be applied to certain stock options that were granted during the year ended June 30, 2000.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

The only financial instruments Aastrom maintains are in accounts receivables. Aastrom believes that the interest rate risk related to these accounts is not significant. Aastrom 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 our internal controls and policies. Aastrom does not enter into hedging or derivative instruments.

Aastrom is also exposed to interest rate changes principally affecting its investments in interest rate sensitive instruments. An analysis of the impact on Aastrom's interest rate sensitive financial instruments of a hypothetical 10% change in short-term interest rates compared to interest rates at June 30, 2000 indicates that it would not have a significant impact on expected fiscal year 2001 earnings.

BUSINESS RISKS

Aastrom's business is subject to a number of 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 as well as substantial clinical trials. While we have commenced initial marketing on a very limited basis of the AastromReplicell(TM) System in Europe, we believe that the United States will be the principal market for our products. We may not be able to successfully complete development of the AastromReplicell System or our other product candidates, or successfully market our technologies or product candidates. We and any of our potential collaborators may encounter problems and delays relating to research and development, regulatory approval and intellectual property rights of our technologies and product candidates. Our research and development programs may not be successful, and our 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 occur, 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 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. In October 1999, Aastrom was forced to reduce operations based on its declining level of capital resources and its limited financing alternatives available at that time. Although we have started to restore operating activities, the previous reduction in our operating activities has negatively affected our ability to develop our products and has delayed our product development programs. Based on current funding and anticipated operating activities, we expect that our available cash and expected interest income will be sufficient to finance our current activities through mid-calendar This is a forward-looking statement and could be negatively affected vear 2001. by funding limitations, the implementation of additional research and development programs and other factors discussed under this heading. We are currently pursuing additional sources of financing. If we cannot obtain additional funding prior to that time, we will be forced to make substantial reductions in the scope and size of our operations, and may be forced to curtail activities that we currently plan to resume. In order to grow and expand our business, and to introduce our product candidates into the marketplace, we will need to raise additional funds. We will also need additional funds or a collaborative partner, or both, to finance the research and development activities of our new product candidates for the production of additional cell types.

Our 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;
- the ability of Aastrom to establish additional collaborative
- relationships; and
- . effective commercialization activities and facility 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. Further, we may enter into financing transactions at rates which are at a substantial discount to market. This additional funding may not be available to us on reasonable terms, or at all. If adequate funds are not available, we may be required to further delay or terminate research and development programs, curtail capital expenditures, and reduce business development and other operating activities. We must successfully complete our clinical trials to be able to market our products.

To be able to market products in the United States, we must demonstrate, through extensive preclinical studies and clinical trials, the safety and efficacy of our processes and product candidates, together with the cells produced by such processes in such products, for application in the treatment of humans. We are currently conducting clinical trials to demonstrate the safety and biological activity of patient-derived cells produced in the AastromReplicell(TM) System. Depending on the availability of resources, we intend to commence at least one additional clinical trial 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 U.S. Food and Drug Administration (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 FDA before commercial sales of our 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 or future clinical trials. In addition, patients receiving cells produced with our 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 would impair our business.

Our 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 our technologies or product candidates may not be accepted by the marketplace as readily as these or other competing processes and methodologies. Additionally, our technologies or product candidates may not be employed in all potential applications being investigated, and any limited applications would limit the market acceptance of our technologies

and product candidates and our potential revenues. 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.

We rely solely on third parties to manufacture our product candidates and their component parts. We also rely 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. In October 1999, we suspended manufacturing of our products. While we are in the process of reestablishing our product manufacturing capabilities, we have not yet completed those activities and resumed production of certain components of our product line. 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 costcompetitive basis, if at all.

Furthermore, some of the compounds used by us in our 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 our products. If we were not able to develop or obtain alternative compounds, our product development and commercialization efforts would be harmed.

Finally, we may not be able to continue our present arrangements with our suppliers, supplement existing relationships, establish new relationships or be able to identify and obtain the ancillary materials that are necessary to develop our product candidates in the future. Our dependence upon third parties for the supply and manufacture of these items could adversely affect our 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.

We were incorporated in 1989 and have experienced substantial operating losses since inception. As of June 30, 2000, we have incurred net operating losses totaling approximately \$79.0 million. These losses have resulted principally from costs incurred in the research and development of our cell culture technologies and the AastromReplicell(TM) System, general and administrative expenses, and the prosecution of patent applications. We expect to incur significant operating losses until product sales increase, primarily owing to our research and development programs, including preclinical studies and clinical trials, and the establishment of marketing and distribution capabilities necessary to support commercialization efforts for our products. We cannot predict with any certainty the amount of future losses. Our ability to achieve profitability will depend, among other things, on successfully completing the development of our product candidates, obtaining regulatory approvals, establishing manufacturing, sales and marketing arrangements with third parties, and raising sufficient funds to finance our activities. We 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 a limited ability to market, sell and distribute our products. Even if we are able to enter into such 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, in November 1998 Aastrom and COBE BCT terminated a strategic alliance for the worldwide distribution of the AastromReplicell(TM) System for stem cell therapy and related uses. We are now seeking to enter into other arrangements relating to the development and marketing of our product candidates. 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 and/or the cells produced by them 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 our competitors have significantly greater resources, more product candidates and have developed product candidates and processes that directly compete with our products. Our 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 SC-I Therapy Kit, 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 cannot develop our cell production procedure to lead to a less expensive and quicker recovery time than seen with the traditional methods, then 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.

If we cannot attract and retain key personnel, then 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 four of the six executive officers at that time have since left for positions with other organizations. We have hired, or promoted, three new executive officers to assume their responsibilities, one of which subsequently left. Further, in an effort to conserve financial resources, we have been forced to implement reductions in our work force on two separate occasions. As a result of these and other factors, we may not be successful in hiring or retaining key personnel.

The warrants have the potential for substantial dilution.

In June 2000, we issued warrants to purchase up to 3,348,915 shares of our common stock at \$0.01 per share. If all 3,348,915 shares of common stock are issued under the warrants, then holders of common stock could experience significant dilution of their investment.

The exercise price of the warrants that we issued in February 2000 is subject to certain reduction in the event the price of our common stock goes down at specified times in the future or if we issue additional securities at less than the warrant exercise price. If the exercise price of these warrants is reduced, there would also be an increase in the number of shares that could be issued upon exercise of the warrants. The warrants are currently exercisable for 1,382,816 shares of common stock. This number of shares could increase to 2,614,386 shares of common stock and the exercise price could be reduced to as low as \$1.60 per share. Holders of common stock could therefore experience dilution of their investment upon exercise of these warrants.

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 potential 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 stock, regardless of our operating performance or prospects. For example, within the last year, our stock price has experienced a day where it traded at approximately twice the previous day's closing price and another day when it dropped by over 20% 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.

If our patents and proprietary rights do not provide substantial protection, then 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 assured that patents will be granted on any of our pending or future patent applications. We also cannot be assured 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, we rely on licenses granted by the University of Michigan for certain of our patent rights. If we breach such agreements or otherwise fail to comply with such agreements, or if such agreements expire or are otherwise terminated, we may lose our rights under the patents held by the University of Michigan. We also rely on trade secrets and unpatentable know-how which we seek to protect, in part, by confidentiality agreements may be breached, and we might not have adequate remedies for any breach. If this were to occur, our business and competitive position would suffer.

Intellectual property litigation could harm our business.

Our success will also depend in part on our ability to develop commercially viable products without infringing the proprietary rights of others. Although we have 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, we may be forced to litigate. Intellectual property litigation would divert

management's attention from developing our products and would force us to incur substantial costs regardless of whether we are successful. An adverse outcome could subject us to significant liabilities to third parties, and force us to curtail or cease the development and sale of our products and processes.

The market for our products will be heavily dependent on third party reimbursement policies.

Our ability to successfully commercialize our 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 our 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. For example, recently published studies have suggested that stem cell transplantation in breast cancer, which constitutes a significant portion of the overall stem cell therapy market, may have limited clinical benefit. The market for our products would be negatively affected by lack of reimbursement for these procedures by insurance payors.

Potential product liability claims could effect our earnings and financial condition.

We face 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, we 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.

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 change in control to be in their best interest.

We may be required to redeem a portion of our shares which would significantly reduce our limited cash resources.

The original purchasers of the shares and warrants issued in February 2000 and June 2000 may require us to redeem some or all of those shares in the event that we fail to perform certain administrative activities that are within our control. These administrative activities include: issuing the shares of common stock upon the exercise of the warrants, transferring or instructing the transfer agent to transfer shares of common stock issued upon exercise of the warrants when required and removing any restrictive legends from such shares of common stock when required. Such a redemption could significantly reduce our limited capital resources.

Our stock may be delisted from Nasdaq which could affect its market price and liquidity.

We are required to meet certain financial tests (including, but not limited to, a minimum bid price of our common stock of \$1.00 and \$4 million in tangible net worth) to maintain the listing of our common stock on the Nasdaq National Market. Within the last year, our common stock price has fallen below the minimum level for some periods and during other periods our tangible net worth has been below the amount required. In the future, our stock price or tangible net worth may fall below the Nasdaq requirements, or we may not comply with other listing requirements, with the result being that our common stock might be delisted. If that happened the market price and liquidity of our common stock would be impaired. Absence of dividends could reduce our attractiveness to investors.

Some investors favor companies that pay dividends, particularly in market downturns. We have never paid cash dividends on our common stock and do not anticipate paying any cash dividends on our common stock in the foreseeable future. Therefore some investor may elect not to invest in Aastrom. Your return on this investment will depend on your ability to sell our stock at a profit.

Forward-looking statements

This report 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 potential strategic collaborations with others;
- future capital needs and uncertainty of additional funding;
- 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;
- . 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.

These statements are subject to risks and uncertainties, including those set forth in this Business Risks section, and actual results could differ materially from those expressed or implied in these statements. All forward-looking statements included in this Report on Form 10-K are made as of the date hereof. We assume no obligation to update any such forward-looking statement or reason why actual results might differ.

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Notes to Consolidated Financial Statements	

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, 1999 and 2000, and the results of its operations and its cash flows for each of the three years in the period ended June 30, 2000, and for the period from March 24, 1989 (Inception) to June 30, 2000, in conformity with accounting principles generally accepted in the United States. 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 auditing standards generally accepted in the United States 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 4, 2000

CONSOLIDATED BALANCE SHEETS

	June 30,	
	1999	2000
ASSETS		
CURRENT ASSETS: Cash and cash equivalents Short-term investments Receivables (net of allowance for doubtful	\$ 7,528,000 -	\$ 2,064,000 10,681,000
accounts of \$94,000 at June 30, 2000) Inventory Prepaid expenses	113,000 1,144,000 253,000	242,000 - 158,000
Total current assets	9,038,000	13,145,000
PROPERTY, NET	502,000	292,000
Total assets	\$ 9,540,000 =========	\$ 13,437,000 ==========
LIABILITIES AND SHAREHOLDERS' EQUITY		
CURRENT LIABILITIES: Accounts payable and accrued expenses Accrued employee expenses	\$ 836,000 193,000	\$ 837,000 165,000
Total current liabilities	1,029,000	1,002,000
COMMITMENTS (Note 6)		
SHAREHOLDERS' EQUITY: Preferred Stock, no par value; shares authorized - 5,000,000; 7,000 shares issued and outstanding as of June 30, 1999 Common Stock, no par value; shares authorized - 60,000,000; shares issued and outstanding - 16,980,161 and	6,588,000	-
33,607,659, respectively Deficit accumulated during the development stage	72,257,000 (70,334,000)	92,367,000 (79,932,000)
Total shareholders' equity	8,511,000	12,435,000
Total liabilities and shareholders' equity	\$ 9,540,000 ========	\$ 13,437,000 ==========

The accompanying notes are an integral part of these financial statements.

CONSOLIDATED STATEMENTS OF OPERATIONS

	Year ended June 30,			March 24, 1989 (Inception) to June 30,
	1998	1999	2000	2000
REVENUES: Product sales and rentals Research and development agreements Grants	3,000 246,000	\$ 34,000 	\$ 169,000 981,000	\$ 203,000 2,020,000 4,217,000
Total revenues	249,000	881,000	1,150,000	6,440,000
COSTS AND EXPENSES: Cost of product sales and rentals Research and development Selling, general and administrative	- 15,498,000 2,858,000	6,000 10,871,000 2,836,000	1,251,000 6,289,000 3,364,000	1,257,000 71,090,000 18,100,000
Total costs and expenses		13,713,000	10,904,000	90,447,000
LOSS FROM OPERATIONS	(18,107,000)	(12,832,000)	(9,754,000)	(84,007,000)
OTHER INCOME (EXPENSE): Other income Interest income Interest expense	- 886,000	1,237,000 571,000 (4,000)	364,000	1,237,000 4,073,000 (267,000)
Total other income		1,804,000	364,000	5,043,000
NET LOSS		\$(11,028,000) =======	\$ (9,390,000) ======	\$(78,964,000) =======
COMPUTATION OF NET LOSS APPLICABLE TO COMMON SHARES: Net loss Dividends and yields on preferred stock Charge related to issuance of preferred stock	\$(17,233,000) (351,000) (3,439,000)	\$(11,028,000) (409,000) (70,000)	\$ (9,390,000) (208,000) -	
Net loss applicable to common shares		\$(11,507,000) =======	\$ (9,598,000) =======	
NET LOSS PER COMMON SHARE (Basic and Diluted)		\$(.75)	\$ (.41)	
Weighted average number of common shares outstanding	13,363,000 ======	15,342,000	23,344,000 =======	

The accompanying notes are an integral part of these financial statements.

CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY

	Preferred Stock		Common Stock		
	Shares	Amount	Shares	Amount	
BALANCE, MARCH 24, 1989 (Inception)	-	\$-	-	\$-	
Net loss Unrealized losses on investments					
Comprehensive loss Issuance of common stock for cash, services and license rights Issuance of Series A through Series E Preferred Stock for cash, net of issuance costs of			487,878	33,000	
\$342,000Issuance of Series E Preferred Stock at \$17.00	9,451,766	34,218,000			
per share Exercise of stock options Issuance of Stock Purchase Rights for cash in	205,882	3,500,000	1,438,908	(3,500,000) 119,000	
September 1995 and March 1996				3,500,000	
Principal payment received under shareholder note receivable Initial public offering of common stock at \$7.00 per share, net of issuance costs of				31,000	
\$2,865,000 Conversion of preferred stock Compensation expense related to stock options	(9,657,648)	(37,718,000)	3,250,000 8,098,422	19,885,000 37,718,000	
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 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	68,500	83,000	
Dividends on preferred stock Issuance of common stock Repurchase and retirement of Common Shares			72,940 255,340	351,000 1,144,000	
outstanding Compensation expense related to stock options and warrants granted			(32,171)	(73,000) 398,000	
-					
BALANCE, JUNE 30, 1998 Net loss Unrealized losses on investments	2,200,000	9,930,000	13,639,817	59,809,000	
Comprehensive loss					
Dividend and yields on preferred stock Exercise of stock options Issuance of 1998 Series I Convertible Preferred		258,000	75,628 24,043	151,000 28,000	
Stock at \$1,000 per share, net of issuance costs of \$460,000 Issuance of 1999 Series III Convertible	5,000	4,540,000	40,404	149,000	
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 Conversion of preferred stock Compensation expense related to stock options	(2,201,000)	(10,860,000)	451,906 2,698,369	1,159,000 10,860,000	
granted				11,000	
BALANCE, JUNE 30, 1999 Net loss and comprehensive loss	7,000	6,588,000	16,980,161	72,257,000	
Dividend and yields on preferred stock		208,000	405 750	400,000	
Exercise of stock options and warrants Conversion of preferred stock Compensation expense related to stock options	(7,000)	(6,796,000)	405,753 10,956,918	409,000 6,796,000	
granted Issuance of common stock, net of issuance				5,000	
costs of \$200,000			5,264,827	12,900,000	
BALANCE, JUNE 30, 2000	-	\$- =======	33,607,659 ======	\$ 92,367,000 ======	

Deficit		
accumulated	Accumulated	
during the	other	
development	comprehensive	S
stage	income	

Total shareholders' equity

BALANCE, MARCH 24, 1989 (Inception)	\$-	\$-	\$-
Net loss Unrealized losses on investments	(41,313,000)	(10,000)	(41,313,000) (10,000)
Comprehensive loss Issuance of common stock for cash, services			(41,323,000)
and license rights Issuance of Series A through Series E Preferred Stock for cash, net of issuance costs of			33,000
\$342,000 Issuance of Series E Preferred Stock at \$17.00 per share			34,218,000
Exercise of stock options Issuance of Stock Purchase Rights for cash in			119,000
September 1995 and March 1996 Principal payment received under shareholder			3,500,000
note receivable Initial public offering of common stock at \$7.00 per share, net of issuance costs of			31,000
\$2,865,000 Conversion of preferred stock Compensation expense related to stock options			19,885,000 -
granted			120,000
BALANCE, JUNE 30, 1997	(41,313,000)	(10,000)	16,583,000
Net loss Unrealized gains on investments	(17,233,000)	14,000	(17,233,000) 14,000
Comprehensive loss Exercise of stock options Issuance of 5.5% Convertible Preferred Stock at \$5.00 per share, net of issuance costs of			(17,219,000) 83,000
\$1,070,000 Dividends on preferred stock	(351,000)		9,930,000
Issuance of common stock Repurchase and retirement of Common Shares outstanding			1,144,000 (73,000)
Compensation expense related to stock options and warrants granted			398,000
BALANCE, JUNE 30, 1998	(58,897,000)	4,000	10,846,000
Net loss Unrealized losses on investments	(11,028,000)	(4,000)	(11,028,000) (4,000)
Comprehensive loss Dividend and yields on preferred stock	(409,000)		(11,032,000)
Exercise of stock options Issuance of 1998 Series I Convertible Preferred Stock at \$1,000 per share, net of issuance	(, ,		28,000
costs of \$460,000 Issuance of 1999 Series III Convertible Preferred Stock at \$1,000 per share, net of			4,689,000
issuance costs of \$280,000 Issuance of common stock Conversion of preferred stock			2,810,000 1,159,000
Compensation expense related to stock options granted			11,000
BALANCE, JUNE 30, 1999	(70,334,000)		8,511,000
Net loss and comprehensive loss Dividend and yields on preferred stock Exercise of stock options and warrants	(9,390,000) (208,000)		(9,390,000) 409,000
Conversion of preferred stock Compensation expense related to stock options			-
granted Issuance of common stock, net of issuance costs of \$200,000			5,000 12,900,000
BALANCE, JUNE 30, 2000	\$(79,932,000) ======	\$	\$ 12,435,000 ======

The accompanying notes are an integral part of these financial statements.

CONSOLIDATED STATEMENTS OF CASH FLOWS

		Year ended June 3	,	March 24, 1989 (Inception) to June 30,
	1998	1999	2000	2000
OPERATING ACTIVITIES: Net loss Adjustments to reconcile net loss to net cash used for operating activities:	\$(17,233,000)	\$(11,028,000)	\$ (9,390,000)	\$ (78,964,000)
Depreciation and amortization Loss on property held for resale Amortization of discounts and premiums on	557,000 -	296,000	346,000	3,030,000 110,000
investments Stock compensation expense Write down of inventory	(180,000) 398,000	(70,000) 11,000	(21,000) 5,000 1,027,000	(474,000) 544,000 1,027,000
Stock issued pursuant to license agreement Changes in assets and liabilities:	1,100,000	1,100,000	1,100,000	3,300,000
Receivables Inventory Prepaid expenses Accounts payable and accrued expenses Accrued employee expenses	38,000 - (144,000) (195,000) 20,000	54,000 (1,144,000) 17,000 (477,000) 43,000	(129,000) 117,000 95,000 1,000 (28,000)	(266,000) (1,027,000) (158,000) 837,000 165,000
Net cash used for operating activities	(15,639,000)	(11,198,000)	(6,877,000)	(71,876,000)
INVESTING ACTIVITIES: Organizational costs. Purchase of short-term investments. Maturities of short-term investments. Capital purchases. Proceeds from sale of property held for resale. Net cash provided by (used for) investing activities.	(12,326,000) 18,450,000 (234,000) 	(1,000,000) 10,200,000 (73,000) 	(10,660,000) (136,000) 	(73,000) (55,124,000) 44,917,000 (2,585,000) 400,000 (12,465,000)
FINANCING ACTIVITIES: Issuance of preferred stock Issuance of common stock Repurchase of common stock Payments received for stock purchase rights Payments received under shareholder notes Principal payments under capital lease obligations	9,930,000 127,000 (49,000) - (124,000)	7,499,000 87,000 - - (65,000)	12,209,000 - - - - -	51,647,000 32,450,000 (49,000) 3,500,000 31,000 (1,174,000)
Net cash provided by financing activities	9,884,000	7,521,000	12,209,000	86,405,0000
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	135,000	5,450,000	(5,464,000)	2,064,000
CASH AND CASH EQUIVALENTS AT BEGINNING OF PERIOD	1,943,000	2,078,000	7,528,000	-
CASH AND CASH EQUIVALENTS AT END OF PERIOD	\$ 2,078,000	\$ 7,528,000 ======	\$ 2,064,000 ======	\$ 2,064,000
SUPPLEMENTAL CASH FLOW INFORMATION: Interest paidAdditions to capital lease obligations	\$ 12,000 -	\$	\$ - -	\$ 267,000 1,174,000

The accompanying notes are an integral part of these financial statements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Organization and Summary of Significant Accounting Policies

Aastrom Biosciences, Inc. (Aastrom) was incorporated in March 1989 (Inception), began employee-based operations in 1991, and is in the development stage. 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.

The Company is subject to certain risks related to the operation of its business and development of its products and product candidates. In order to complete its product development programs and commercialize its first product candidates, the Company will need to raise additional funds, and it cannot be certain that such funding will be available on favorable terms, if at all. Some of the factors that will impact the Company's ability to raise additional capital and its overall success include, the rate and degree of progress for its product development programs, the liquidity and volatility of its equity securities, regulatory and manufacturing requirements and uncertainties, technological developments by competitors and other factors. 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 28% of total revenues for the period from Inception to June 30, 2000. 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. As of June 30, 2000, Zellera has only limited operations and is not a significant component of the consolidated financial statements.

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. During 2000, a significant portion of inventory was written off as the result of the Company suspending its European marketing activities.

Property - Property is recorded at cost and depreciated or amortized using the straight-line method over the estimated useful life of the asset (primarily three to five years) or the lease term, whichever is shorter.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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. Revenue from achievement of milestone events is recognized when the funding party agrees that the scientific or clinical results stipulated in the agreement have been met. Revenue from licensing fees under licensing agreements is recognized as revenue when there are no future performance obligations remaining with respect to such fees.

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 \$3,000 for the year ended June 30, 1998 and \$1,645,000 for the period from Inception to June 30, 2000.

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 included to have been converted into common stock at the time of issuance. Other classes of preferred stock are included in the computation of net loss per common share upon the conversion of such preferred stock into common stock.

The computation of net loss per common share reflects dividends, yields and other adjustments relating to the 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 - In June 1998, the Financial Accounting Standards Board (FASB) issued Statement of Financial Accounting Standards No. 133, "Accounting for Derivative Instruments and Hedging Activities," as subsequently amended. This statement establishes a new model for accounting for derivatives and hedging activities and require that all derivatives be recognized as assets and liabilities and measured at fair value. The new standards become effective for the Company beginning on July 1, 2000. Because the Company does not currently hold any derivative instruments and does not engage in

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

hedging activities, it does not expect the adoption of SFAS No. 133 and SFAS No. 138 to have a material impact on its financial position.

In December 1999, the Securities and Exchange Commission (SEC) issued Staff Accounting Bulletin No. 101, "Revenue Recognition in Financial Statements" (SAB 101) which provides guidance related to revenue recognition based on interpretations and practices followed by the SEC. The Company is in the process of analyzing the requirements of SAB 101, as amended, and is required to comply no later than the fourth quarter of fiscal year 2001. The Company has not yet determined the impact of SAB 101 on its consolidated financial statements but does not expect the adoption of SAB 101 to have a material impact on the results of operations.

In April 2000, the FASB issued Financial Accounting Standards Board Interpretation Number 44 to APB 25, "Accounting for Certain Transactions Involving Stock Compensation and Interpretation of Accounting Principles Board Opinion No. 25," (Interpretation No. 44), which is effective July 1, 2000, except for certain conclusions which cover specific events after either December 15, 1998 or January 12, 2000. Interpretation No. 44 clarifies the application of APB No. 25 related to modifications of stock options, changes in grantee status, and options issued on a business combination, among other things. As described in Note 3, Interpretation No. 44 will be applied to certain stock options that were granted during the year ended June 30, 2000.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

2. Selected Balance Sheet Information

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

	Amortized Cost	Gro Unrea Gai	alized		oss lized sses	Market Value
June 30, 2000: U.S. Government Securities Commercial Paper	\$ 5,431,000 5,250,000	\$	-	\$	-	\$ 5,431,000 5,250,000
	\$10,681,000	\$ ======		\$ =====		\$10,681,000

Property - Property consists of the following:

	June 30,		
	1999	2000	
Machinery and equipment Office equipment Leasehold improvements Equipment under lease	\$ 1,477,000 883,000 622,000	\$ 1,483,000 886,000 622,000 120,000	
Less accumulated depreciation and amortization	2,982,000 (2,480,000)	3,111,000 (2,819,000)	
	\$ 502,000	\$ 292,000	

Accounts Payable and Accrued Expenses - Accounts payable and accrued expenses consists of the following:

	June 30,		
	1999	2000	
Accounts payable	\$ 276,000	\$ 100,000	
Clinical studies	121,000	118,000	
Professional services	48,000	55,000	
Manufacturing and engineering	253,000	444,000	
Other	138,000	120,000	
	÷ • • • • • • • • • • • • • • • • • • •	 	
	\$ 836,000 ========	\$ 837,000 	

3. Shareholders' Equity

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.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In July 1998, the Company sold 5,000 shares of Series I Preferred Stock for net proceeds of \$4,540,000. In May 1999, the Company sold 3,000 shares of Series III Preferred Stock for net proceeds of \$2,720,000. The shares of Series I Preferred Stock and Series III Preferred Stock were convertible, at the option of the holder, into shares of the Company's common stock at a price based on the market price of the Company's common stock prior to conversion. During the year ended June 30, 1999, the Company issued 458,043 Shares of common stock upon conversion of 1,000 shares of Series I Preferred Stock. During the year ended June 30, 2000, the Company issued 10,956,918 shares of common stock, upon the conversion of all remaining 4,000 shares of Series I Preferred Stock and all 3,000 shares of Series III Preferred Stock.

In February 2000, the Company completed the sale of 2,264,151 units, each of which consists of one share of common stock and a three-year warrant to purchase one-half of one share of common stock for net proceeds of \$5,900,000. In June 2000, the Company completed the sale of 2,810,305 shares of common stock for net proceeds of \$5,900,000. The original purchaser of the shares and warrants in these two financings may require the Company to redeem some or all of those shares in the event that the Company fails to perform certain administrative activities that are within its control. These administrative activities include issuing the shares of common stock upon the exercise of the warrants, transferring or instructing the transfer agent to transfer shares of common stock issued upon exercise of the warrants when required and removing any restrictive legends from such shares of common stock when required.

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% Convertible Preferred Stock.

Stock Option Plans - The Company has various stock option plans (Option Plans) and agreements that provide for the issuance of nonqualified and incentive stock options to acquire up to 4,499,927 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 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 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 the new range 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.

Under the Company's outside directors' stock option plan, non-qualified options to purchase 5,000 shares of common stock are granted to each outside director on the day following 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.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

As allowed by SFAS 123, the Company does not recognize compensation expense on stock options granted. If the Company had elected to recognize compensation expense based upon the fair value at the grant dates for stock option awards granted in 1998, 1999 and 2000, in accordance with SFAS No. 123, the pro forma net loss and net loss per common share would be as follows.

	Year ended June 30,						
	1998 1999				1999 200		
Net loss:							
As reported	\$17	,233,000	\$11,	028,000	\$9,3	390,000	
Pro forma	. , ,		11,935,000		9,829,000		
Net loss per common share:							
As reported	\$	(1.57)	\$	(.75)	\$	(.41)	
Pro forma		(1.63)		(.81)		(.43)	

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%-80% expected volatility, risk free interest rates ranging from 4.2% to 6.7% and expected option lives of generally four years.

The following table summarizes option activity:

	Options Outstanding	Options Available for Grant Under Option Plans	Weighted Average Exercise Price Per Share	Options Exercisable at Period End
March 24, 1989 (Inception)				
Options authorized Options canceled Options granted Options exercised	(225,702) 2,722,981 (1,438,908)	2,999,927 225,702 (2,722,981) -	\$.70 \$2.26 \$.22	
Balance, June 30, 1997	1,058,371	502,648	\$5.36	483,376
Options canceled Options granted Options exercised	(199,873) 372,520 (68,500)	199,873 (372,520) -	\$5.79 \$4.41 \$1.21	
Balance, June 30, 1998	1,162,518	330,001	\$5.12	593,930
Options canceled Options granted Options exercised	(569,881) 738,700 (24,043)	569,881 (638,700) -	\$6.40 \$3.12 \$1.18	
Balance, June 30, 1999 Options authorized Options canceled Options granted	1,307,294 - (1,091,612) 1,058,500	261,182 1,400,000 991,612 (1,058,500)	\$3.60 \$3.64 \$1.02	729,786
Options exercised	(86,126)	(_, _00,000)	\$1.72	
Balance, June 30, 2000	1,188,056 =======	1,594,294 =======	\$1.30	1,000,224

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

The following table summarizes information about stock-based compensation plans as of June 30, 2000:

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
\$1.91 - \$2 \$2.88 - \$3	.84 860,813 .50 66,033 .63 84,875 .56 161,335 .00 15,000 1,188,056 =======	9.5 6.6 9.7 8.0 7.2	\$.84 \$1.29 \$2.55 \$3.41 \$5.67	792,360 54,158 12,188 126,518 15,000 1,000,224	\$.84 \$1.27 \$2.14 \$3.40 \$5.67

The weighted average fair value of options granted during the years ended June 30, 1998, 1999 and 2000 was \$2.28, \$1.33 and \$.43 per share, respectively.

Effective July 1, 2000, the Company will adopt Financial Accounting Standards Board Interpretation Number 44 to APB 25 (Interpretation No. 44) as it relates to options to purchase 759,000 shares of common stock issued by the Company in December 1999. As a result, a charge to expense will be recorded for subsequent increases in the market price of the Company's common stock above \$2.41. This charge will continue until such options have been exercised, forfeited or otherwise expire.

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 sixmonth 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, 1999 and 2000, 13,900 shares, 26,835 shares and 19,627 shares, respectively, 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 \$18.00 per share, or 85% of the fair market value of the Company's common stock at the time of exercise. In January 2000, warrants to purchase 300,000 shares of stock that were issued in May 1999 were exercised for total proceeds to the Company of \$233,000.

In February 2000, the Company sold 2,264,151 units, each unit consisting of one share of common stock and warrants to purchase one-half share of common stock. The warrants contain certain anti-dilution and other adjustment provisions that may be triggered by other financings or future stock prices. Subject to adjustments for stock splits, combinations and similar events, the exercise price may be adjusted, subject to a floor of \$1.60 for adjustments based on subsequent market prices, and the number of shares issuable upon exercise of the warrants may be increased, up to a specified maximum number of shares. The warrants are subject to early termination after February 29, 2001 if the closing bid price (as defined) of Aastrom's common stock exceeds \$7.39 per share for ten consecutive trading days.

In connection with the sale of common stock in June 2000, the Company issued a warrant to purchase up to 3,348,915 shares of common stock at \$0.01 per share. This warrant may become exercisable, in whole or in part, under certain conditions,

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

effectively providing the investor with a limited price adjustment. The warrant is exercisable, if at all, beginning on June 8, 2001 if the market price of the common stock at that time is below \$2.135. The warrant will immediately expire if the average price of the Company's common stock during specified periods before June 8, 2001 exceeds \$4.27 per share, or upon certain change in control events.

Common Shares Reserved - As of June 30, 2000, the Company has reserved shares of common stock for future issuance as follows:

Issuance under	stock option a	and stock purchase	plans	2,971,988
Issuance under	stock purchase	e warrants		5,682,510
				8,654,498

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

4. Income Taxes

Deferred tax assets consist of the following:

1999 2000 Net operating loss carryforwards \$ 23,740,000 \$ 26,510,000 Tax credits and other \$ 2,288,000 \$ 2,787,000 Gross deferred tax assets 26,028,000 \$ 29,297,000	Valuation allowance	(26,028,000)	(29,297,000)
1999 2000 Net operating loss carryforwards \$ 23,740,000 \$ 26,510,000		, ,	, ,
1999 2000 Net operating loss carryforwards \$ 23,740,000 \$ 26,510,000		2,288,000	2,787,000
1999 2000	,	. , ,	. , ,
	Not operating loce corruforwards	¢ 22 740 000	¢ 26 E10 000
		1999	2000
June 30.		June 30,	

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. The valuation allowance as of June 30, 1998 was \$21,861,000.

At June 30, 2000, the Company's Federal tax net operating loss and tax credit carryfowards were \$75,700,000 and \$2,100,000, respectively, which will expire from 2004 through 2020, if not utilized. In July 1998, the Company issued shares of 1998 Series I Convertible Preferred Stock which resulted in a change in ownership and an annual limitation of \$3,136,000, which applies to losses incurred between October 1993 and July 1998. As of June 2000, the portion of the Company's net operating loss that remains subject to this limitation is \$44,000,000. The Company's ability to utilize its net operating loss and tax credit carryforwards may become subject to further annual limitation in the event of other change in ownership events.

5. 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.

Manufacture, Supply and Other Agreements - The Company has entered into various agreements relating to the manufacture of its products and the 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 initial 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 the annual renewal fees due in March, 1998, 1999 and 2000. The accompanying consolidated financial statements reflect charges to research and development expense of \$1,100,000 in each of the years ended June 30, 1998, 1999 and 2000 relating to this agreement.

Other income for the year ended June 30, 1999 includes \$1,237,000 reflecting a one time payment received by the Company in December 1998 relating to the termination of a marketing and distribution agreement.

6. Commitments

As of June 30, 2000, the Company leases its facility under a month-to-month operating lease. Rent expense for the years ended June 30, 1998, 1999 and 2000, was \$487,000, \$560,000 and \$485,000, respectively, and \$2,819,000 for the period from Inception to June 30, 2000.

7. Employee Savings Plan

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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, 2000, the Company has made no contributions to the plan.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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 15, 2000.

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 "Election 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."

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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:

No report on Form 8-K were filed during the fourth quarter.

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 21, 2000

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 21, 2000 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/ Mary L. Campbell Mary L. Campbell	Director
/S/ Arthur F. Staubitz Arthur F. Staubitz	Director
/S/ Joseph A. Taylor Joseph A. Taylor	Director

EXHIBIT INDEX

Exhibit Number	Notes	Description of Document
3.1	А	Restated Articles of Incorporation of Aastrom.
3.2	В	Bylaws, as amended.
4.1	В	Specimen Common Stock Certificate.
4.2	В	Amended and Restated Investors' Rights Agreement, dated April 7, 1992.
10.1 #	В	Form of Indemnification Agreement.
10.2 #	В	Amended and Restated 1992 Incentive and Non-Qualified Stock Option Plan and forms of agreements thereunder.
10.3 #	В	1996 Outside Directors Stock Option Plan and forms of agreements thereunder.
10.4 #	В	1996 Employee Stock Purchase Plan and form of agreement thereunder.
10.7	В	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 #	В	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	В	Collaborative Supply Agreement, dated December 16, 1996, between Aastrom and Anchor Advanced Products, Inc. Mid-State Plastics Division.
10.20 #	В	Form of Employment Agreement.
10.21	В	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 +	В	Collaborative Product Development Agreement, dated May 10, 1994, between SeaMED Corporation and Aastrom.
10.23 +	В	Collaborative Product Development Agreement, dated November 8, 1994, between Ethox Corporation and Aastrom.
10.24 +	В	License and Supply Agreement, dated April 1, 1996, between Immunex Corporation and Aastrom.
10.26	В	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 #	В	Employee Proprietary Information and Invention Agreement, effective June 1, 1991, between Aastrom and R. Douglas Armstrong, Ph.D.
10.29 #	В	Employment Agreement, dated December 8, 1995, between Aastrom and Todd E. Simpson.
10.32 #	В	Employment Agreement, dated October 26, 1995, between Aastrom and Alan K. Smith, Ph.D.
10.40	D	Amendment to License and Supply Agreement, dated August 25, 1997, between Immunex Corporation and Aastrom.
10.41 +	С	Manufacturing Supply Agreement, dated as of August 14, 1998, by and between Aastrom and SeaMED Corporation.
10.42 #	Μ	Employment Agreement, dated August 10, 1998, by and between Aastrom and Bruce Husel.
10.42 #	С	Employment Agreement, dated August 10, 1998, by and between Aastrom and William Odell.
10.43	L	Strategic Planning Consulting Services and Collaboration Agreement, dated October 7, 1997, between Burrill & Company, LLC and Aastrom.
10.44(a)	E	Securities Purchase Agreement dated as of July 2, 1998.
10.44(b)	E	Registration Rights Agreement dated as of July 2, 1998.
10.45(a)	F	Securities Purchase Agreement dated as of May 27, 1999.
10.45(b)	F	Registration Rights Agreement dated as of May 27 1999

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10.45(b) F Registration Rights Agreement dated as of May 27 1999.
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10.46 # N Executive Retention and Severance Agreement, dated February 2, 1999, between Aastrom and R. Douglas Armstrong.

10.47	G	Cobe Termination and Transition Agreement.
10.48	G	Supplemental Agreement to Cobe Termination and Transition Agreement.
10.49 #	Н	Supplemental Agreement by and between Aastrom and Bruce W. Husel dated October 5, 1999.
10.50 #	Н	Supplemental Agreement by and between Aastrom and William L. Odell dated October 1, 1999.
10.51 #	Н	Supplemental Agreement by and between Aastrom and Todd E, Simpson dated September 24, 1999.
10.52 #	Н	Supplemental Agreement by and between Aastrom and Alan K. Smith dated September 30, 1999.
10.53	н	Exclusive financial advisor agreement between Aastrom and Salomon Smith Barney Inc., dated September 10, 1999.
10.54 #	I	Form of Supplemental Agreement to Employment Agreement between Bruce Husel and Aastrom.
10.55 #	I	Pay to Stay Severance Agreement between R. Douglas Armstrong, Ph.D. and Aastrom dated October 15, 1999.
10.56 #	I	Form of Pay to Stay Severance Agreement between Aastrom and Todd E. Simpson dated October 18, 1999, and between Aastrom and Alan Smith dated October 21, 1999.
10.57	J	Securities Purchase Agreement, dated February 28, 2000, by and between Aastrom and RGC International Investors, LDC (RGC).
10.58	J	Registration Rights Agreement dated February 28, 2000, by and between Aastrom and RGC.
10.59	J	Stock Purchase Warrant dated February 29, 2000.
10.60	К	Securities Purchase Agreement dated June 8, 2000, by and between Aastrom and RGC.
10.61	К	Registration Rights Agreement dated June 8, 2000, by and between Aastrom and RGC.
10.62	к	Stock Purchase Warrant dated June 8, 2000.
10.63 #		Agreement Regarding Pay-to-Stay, by and between Aastrom and R. Douglas Armstrong, Ph.D. dated April 28, 2000.
10.64 #		Agreement Regarding Pay-to-Stay, by and between Aastrom and Todd E. Simpson dated June 30, 2000.
10.65 #		Agreement Regarding Pay-to-Stay, by and between Aastrom and Brian S. Hampson dated April 28, 2000.
10.66 #		Form of Retention Bonus Agreement, by and between Aastrom and each of Brian S. Hampson, Bruce W. Husel and Todd E. Simpson.
10.67 #		Form of Relocation Bonus Agreement, by and between Aastrom and each of Brian S. Hampson, Bruce W. Husel and Todd E. Simpson.
23.1		Consent of Independent Accountants.
27.1		Financial Data Schedule.
	_	
A		by reference to Aastrom's Quarterly Report on Form 10-Q ter ended December 31, 1996, as filed on March 7, 1997.
В		by reference to Aastrom's Registration Statement on Form 15415), declared effective on February 3, 1997.
С		by reference to Aastrom's Annual Report on Form 10-K for ed June 30, 1998, as filed on September 29, 1998.
D		by reference to Aastrom's Annual Report on Form 10-K for ed June 30, 1997, as filed on September 25, 1997.
E	Incorporated b filed on July	by reference to Aastrom's Current Report on Form 8-K, as / 15, 1998.
F	Incorporated b filed on June	by reference to Aastrom's Current Report on Form 8-K, as e 4, 1999.
G		by reference to Aastrom's Quarterly Report on Form 10-Q ter ended December 31, 1998, as filed on February 11,
н	Incorporated b	by reference to Aastrom's Quarterly Report on Form 10-Q

Cobe Termination and Transition Agreement.

10.47

G

for the quarter ended September 30, 1999, as filed on November 12, 1999.

- I Incorporated by reference to Aastrom's Quarterly Report on Form 10-Q for the quarter ended December 31, 1999, as filed on February 14, 2000.
- J Incorporated by reference to Aastrom's Report on Form 8-K filed on March 3, 2000.
- K Incorporated by reference to Aastrom's Registration Statement on Form S-3 (333-39698), as filed on June 20, 2000.
- L Incorporated by reference to Aastrom's Registration Statement on Form S-1 (No. 333-37439), as filed on October 8, 1997.
- M Incorporated by reference to Aastrom's Amendment to Registration Statement on Form S-1 (No. 333-37439), as filed on November 21, 1997.
- N Incorporated by reference to Aastrom's Annual Report on Form 10-K for the year ended June 30, 1999, as filed on September 20, 1999.
- 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.

AGREEMENT REGARDING PAY-TO-STAY

This Agreement is entered into as of April 28, 2000, by and between Aastrom Biosciences, Inc., a Michigan corporation ("Employer"), and R. Douglas Armstrong, Ph.D. ("Employee"), with respect to the following facts:

RECITALS

A. Employer currently employs Employee.

B. In the Fall of 1999, Employer was experiencing severe financing difficulties, such that Employer needed to substantially reduce operations and the number of its employees, and Employer was seeking to be acquired by a third party. Under these circumstances, Employer found it to be necessary to offer and enter into a "Pay to Stay Severance Agreement" with Employee, in order to induce Employee to remain employed by Employer through April 30, 2000.

C. Pursuant to the Pay to Stay Severance Agreement, Employee is entitled to receive a twelve month salary severance payment (the "Payment Sum") upon termination of employment, so long as Employee remains employed through April 30, 2000. Since the Fall of 1999, Employer's financing position has improved, such that Employer's current focus is on growing and developing its business, rather than to principally pursue an acquisition transaction. Accordingly, Employer would like the employment of Employee to continue, and Employer does not want Employee to have an incentive to terminate employment in order to obtain the Payment Sum or to obtain full vesting of Employee's stock options.

D. In view of the fact that Employee has been willing to remain in the employment of Employer during the past difficult months, and the fact that Employee has been supportive and instrumental in helping Employer attain its current position, Employer has concluded that Employee has now fully earned the Payment Sum.

E. Pursuant to the Pay to Stay Severance Agreement, Employee was also entitled to an "Incentive Sale Bonus" based upon the net sales proceeds from a third party acquiring Employer.

WHEREFORE, the parties hereto mutually agree as follows:

1. Severance Pay. For and in consideration of the matters set forth

herein, Employer hereby agrees to pay to Employee within the next thirty days the Payment Sum, less applicable payroll deductions.

2. Incentive Sale Bonus. Employer and Employee hereby acknowledge and

agree (i) that the Incentive Sale Bonus remains in effect and applicable to Employer being acquired by (by sale or merger) another company and provided that Employee remains an employee of Employer through the completion of the acquisition transaction, (e.g. through approval by the shareholders of the merger transaction) excepting however, that such continued employment shall not be required or applicable if Employer terminates Employee's employment without cause.

3. Stock Vesting. The parties reaffirm and agree that for all

unvested stock options granted by Employer to Employee prior to the date of this agreement, and for all stock subject to Employer's buy back right, there shall be accelerated and immediate vesting upon the date of this agreement.

4. Prior Agreement. The parties acknowledge and agree that the prior

Executive Retention and Severance Agreement, dated February 2, 1999, pursuant to which Employee is entitled to certain severance pay, remains in full force and effect.

5. Acknowledgment of No Claims. Employee hereby acknowledges and

confirms that Employee has no claims against Employer, or any director, officer, shareholder or agent of Employer, with respect to any employment matters (except as set forth in this Agreement, and for ordinary course of business salary, fringe benefits, accrued vacation leave and reimbursement of customary business expenses incurred on behalf of Employer, all in the ordinary course of business). Further, Employee acknowledges and confirms that Employee's employment with Employer continues on an "at will" basis, with no expressed or implied continued duration of employment.

6. General.

a. Excepting Section 2 ("Incentive Sale Bonus") as provided in Section 2 of the Pay to Stay Severance Agreement entered into the Fall of 1999, the Pay to Stay Severance Agreement is hereby terminated in its entirety.

b. This Agreement shall bind and inure to the benefit of the parties' successors, assigns, heirs and legal representatives.

c. This Agreement may be modified, amended or superseded only by a written document signed by both parties.

d. Employee acknowledges that this Agreement confers significant legal rights on Employee, and also involves Employee waiving other potential rights he/she might have under other agreements and laws. Employee acknowledges that Employer has encouraged Employee to consult with Employee's own legal, tax and financial advisors before signing this Agreement, and Employee acknowledges that Employee has had an adequate time to do so before signing this Agreement.

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

IN WITNESS WHEREOF, the parties hereto have executed and delivered this Agreement as of June 18, 2000.

EMPLOYER:

Aastrom Biosciences, Inc.

By: /s/ Arthur F. Staubitz

EMPLOYEE:

/s/ R. Douglas Armstrong Print Name: R. Douglas Armstrong

AGREEMENT REGARDING PAY-TO-STAY

This Agreement is entered into as of June 30, 2000, by and between Aastrom Biosciences, Inc., a Michigan corporation ("Employer"), and Todd E. Simpson ("Employee"), with respect to the following facts:

RECITALS

A. Employer currently employs Employee.

B. In the Fall of 1999, Employer was experiencing severe financing difficulties, such that Employer needed to substantially reduce operations and the number of its employees, and Employer was seeking to be acquired by a third party. Under these circumstances, Employer found it to be necessary to offer and enter into a "Pay to Stay Severance Agreement" with Employee, in order to induce Employee to remain employed by Employer through April 30, 2000.

C. Pursuant to the Pay to Stay Severance Agreement, Employee is entitled to receive a six month salary severance payment (the "Payment Sum") upon termination of employment, so long as Employee remains employed through April 30, 2000. Since the Fall of 1999, Employer's financing position has improved, such that Employer's current focus is on growing and developing its business, rather than to principally pursue an acquisition transaction. Accordingly, Employer would like the employment of Employee to continue, and Employer does not want Employee to have an incentive to terminate employment in order to obtain the Payment Sum or to obtain full vesting of Employee's stock options.

D. In view of the fact that Employee has been willing to remain in the employment of Employer during the past difficult months, and the fact that Employee has been supportive and instrumental in helping Employer attain its current position, Employer has concluded that Employee has now fully earned the Payment Sum.

E. Pursuant to the Pay to Stay Severance Agreement, Employee was also entitled to an "Incentive Sale Bonus" based upon the net sales proceeds from a third party acquiring Employer.

WHEREFORE, the parties hereto mutually agree as follows:

- 1. Severance Pay.
- a. For and in consideration of the matters set forth herein,

Employer hereby agrees to pay to Employee within the next thirty days the Payment Sum, less applicable payroll deductions.

2. Incentive Sale Bonus. Employer and Employee hereby acknowledge and

agree (i) that the Incentive Sale Bonus remains in effect and applicable to Employer being acquired by (by sale or merger) another company and provided that Employee remains an employee of Employer through the completion of the acquisition transaction, (e.g. through approval by the shareholders of the merger transaction) excepting however, that such continued employment shall not be required or applicable if Employer terminates Employee's employment without cause.

3. Stock Vesting. The parties agree that for all unvested stock

options granted by Employer to Employee prior to the date of this agreement, there shall be accelerated and immediate vesting as of the date of this agreement.

4. Prior Agreement. The parties acknowledge and agree that the prior

Supplemental Agreement to Employment Agreement, dated September 24, 1999, pursuant to which Employee is entitled to certain severance pay, remains in full force and effect.

5. Acknowledgment of No Claims. Employee hereby acknowledges and

confirms that Employee has no claims against Employer, or any director, officer, shareholder or agent of Employer, with respect to any employment matters (except as set forth in this Agreement, and for ordinary course of business salary, fringe benefits, accrued vacation leave and reimbursement of customary business expenses incurred on behalf of Employer, all in the ordinary course of business). Further, Employee acknowledges and confirms that Employee's employment with Employer continues on an "at will" basis, with no expressed or implied continued duration of employment.

6. General.

a. Excepting Section 2 ("Incentive Sale Bonus") as provided in Section 2 of the Pay to Stay Severance Agreement entered into the Fall of 1999, the Pay to Stay Severance Agreement is hereby terminated in its entirety.

b. This Agreement shall bind and inure to the benefit of the parties' successors, assigns, heirs and legal representatives.

c. This Agreement may be modified, amended or superseded only by a written document signed by both parties.

d. Employee acknowledges that this Agreement confers significant legal rights on Employee, and also involves Employee waiving other potential rights he/she might have under other agreements and laws. Employee acknowledges that Employer has encouraged Employee to consult with Employee's own legal, tax and financial advisors before signing this Agreement, and Employee acknowledges that Employee has had an adequate time to do so before signing this Agreement.

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

IN WITNESS WHEREOF, the parties hereto have executed and delivered this Agreement as of June 30, 2000.

EMPLOYER:

Aastrom Biosciences, Inc.

By: /s/ R. Douglas Armstrong

EMPLOYEE:

/s/ Todd E. Simpson Print Name: Todd E. Simpson

AGREEMENT REGARDING PAY-TO-STAY

This Agreement is entered into as of April 28, 2000, by and between Aastrom Biosciences, Inc., a Michigan corporation ("Employer"), and Brian Hampson ("Employee"), with respect to the following facts:

RECITALS

A. Employer currently employs Employee.

B. In the Fall of 1999, Employer was experiencing severe financing difficulties, such that Employer needed to substantially reduce operations and the number of its employees, and Employer was seeking to be acquired by a third party. Under these circumstances, Employer found it to be necessary to offer and enter into a "Pay to Stay Severance Agreement" with Employee, in order to induce Employee to remain employed by Employer through April 30, 2000.

C. Pursuant to the Pay to Stay Severance Agreement, Employee is entitled to receive a six month salary severance payment (the "Payment Sum") upon termination of employment, so long as Employee remains employed through April 30, 2000. Since the Fall of 1999, Employer's financing position has improved, such that Employer's current focus is on growing and developing its business, rather than to principally pursue an acquisition transaction. Accordingly, Employer would like the employment of Employee to continue, and Employer does not want Employee to have an incentive to terminate employment in order to obtain the Payment Sum or to obtain full vesting of Employee's stock options.

D. In view of the fact that Employee has been willing to remain in the employment of Employer during the past difficult months, and the fact that Employee has been supportive and instrumental in helping Employer attain its current position, Employer has concluded that Employee has now fully earned the Payment Sum.

E. Pursuant to the Pay to Stay Severance Agreement, Employee was also entitled to an "Incentive Sale Bonus" based upon the net sales proceeds from a third party acquiring Employer.

WHEREFORE, the parties hereto mutually agree as follows:

1. Severance Pay. For and in consideration of the matters set forth

herein, Employer hereby agrees to pay to Employee within the next thirty days the Payment Sum, less applicable payroll deductions.

2. Incentive Sale Bonus. Employer and Employee hereby acknowledge and

agree (i) that the Incentive Sale Bonus remains in effect and applicable to Employer being acquired by (by sale or merger) another company and provided that Employee remains an employee of Employer through the completion of the acquisition transaction, (e.g. through approval by the shareholders of the merger transaction) excepting however, that such continued employment shall not be required or applicable if Employer terminates Employee's employment without cause.

3. Stock Vesting. The parties agree that for all unvested stock

options granted by Employer to Employee prior to the date of this agreement, there shall be accelerated and immediate vesting as of the date of this agreement.

4. Acknowledgment of No Claims. Employee hereby acknowledges and

confirms that Employee has no claims against Employer, or any director, officer, shareholder or agent of Employer, with respect to any employment matters (except as set forth in this Agreement, and for ordinary course of business salary, fringe benefits, accrued vacation leave and reimbursement of customary business expenses incurred on behalf of Employer, all in the ordinary course of business). Further, Employee acknowledges and confirms that Employee's employment with Employer continues on an "at will" basis, with no expressed or implied continued duration of employment.

5. General.

a. Excepting Section 2 ("Incentive Sale Bonus") as provided in Section 2 of the Pay to Stay Severance Agreement entered into the Fall of 1999, the Pay to Stay Severance Agreement is hereby terminated in its entirety.

b. This Agreement shall bind and inure to the benefit of the parties' successors, assigns, heirs and legal representatives.

c. This Agreement may be modified, amended or superseded only by a written document signed by both parties.

d. Employee acknowledges that this Agreement confers significant legal rights on Employee, and also involves Employee waiving other potential rights he/she might have under other agreements and laws. Employee acknowledges that Employer has encouraged Employee to consult with Employee's own legal, tax and financial advisors before signing this Agreement, and Employee acknowledges that Employee has had an adequate time to do so before signing this Agreement.

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

IN WITNESS WHEREOF, the parties hereto have executed and delivered this Agreement as of April 28, 2000.

EMPLOYER:

Aastrom Biosciences, Inc.

By: /s/ R. Douglas Armstrong

EMPLOYEE:

/s/ Brian Hampson Print Name: Brian Hampson

RETENTION BONUS AGREEMENT

This Agreement is made by and between Aastrom Biosciences, Inc., a Michigan Corporation ("Aastrom") and [_____] ("Employee"), as a supplement to the existing Employment Agreement pursuant to which Aastrom has employed Employee.

RECITALS

A. Aastrom currently employs $\ensuremath{\mathsf{Employee}}$ in the position of Vice President.

B. This Agreement is being entered into to provide Employee with sufficient incentives and encouragements for Employee to remain with Aastrom, notwithstanding the possibility of the occurrence in the future of (i) a Merger Transaction (as defined below) event for Aastrom, or (ii) an Acquisition Transaction event for Aastrom (as defined below), and to provide certain benefits in the event that Employee is terminated due to the occurrence of a Merger Transition or Acquisition Transaction.

C. As used in this Agreement, the following terms shall have the following meanings:

"Acquisition Transaction" means Aastrom acquiring another company, by

merger or purchase of assets, with Aastrom remaining in control of the surviving entity after the acquisition; provided, however, an Acquisition Transaction is only a transaction which will result in significant changes in Aastrom's operations and management activities, and not a transaction in which Aastrom merely acquires only limited assets or limited technology which does not result in significant operational and management activity changes for Aastrom.

"Cause" means the occurrence of any of the following events, as

determined by the Board of Directors of Aastrom, in good faith:

(i) Employee's theft, material act of dishonesty, fraud, or intentional falsification of any records of Aastrom;

(ii) Employee's improper use or disclosure of confidential or proprietary information of Aastrom;

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

(iv) Employee's conviction (including any plea of guilty or nolo contendre) of a crime of moral turpitude causing material harm to the reputation or standing of Aastrom or which materially impairs Employee's ability to perform his duties for Aastrom.

"Change in Control" shall mean the occurrence of any of the following events:

sold:

(i) All or substantially all of the assets of Aastrom are

(ii) Aastrom is acquired by another company, by merger or by acquisition of the stock of the Company, after which the previous shareholders of Aastrom own less than 50% of all of the voting stock of the surviving entity.

"Merger Transaction" means a transaction pursuant to which Aastrom is acquired by another entity, thereby resulting in a Change in Control of Aastrom.

WHEREFORE, the parties mutually agree as follow:

- 1. Change of Control Severance Pay.
 - -----

(a) With respect to a Merger Transaction, in the event Employee's employment is terminated by Aastrom (or its surviving successor entity) without Cause during the period of time between the execution of the definitive agreement for the Merger Transaction and the first anniversary of the consummation of the Merger Transaction, then Aastrom (or its surviving successor entity) shall pay to Employee a lump sum severance payment equal to six (6) months of Employee's then current salary rate, less customary payroll deductions.

(b) During such employment, Aastrom (or its surviving successor entity) shall continue to pay Employee at Employee's then current salary level; and any reduction or cessation in said salary payment or general responsibilities shall constitute a termination of employment without Cause which entitles Employee to the severance pay.

(c) During such employment prior to the first anniversary of the consummation of the Merger Transaction, in the event Aastrom (or its surviving successor entity) requires Employee to relocate to a job site more than 50 miles away from Ann Arbor, Michigan, as a condition to retaining Employee's job, and Employee is unwilling to so relocate, and Employee's employment is terminated by Aastrom (or its surviving successor entity), then such a termination shall be a termination of employment without Cause which entitles Employee to the severance pay.

(d) If Employee terminates for any of the reasons set forth in Section 1 (a) or 1(b), then Employee shall receive a \$25,000 additional reimbursement allowance to assist in their relocation including closing costs on the sale of Employees Michigan residence, payable upon forwarding of standard relocation receipts that are not being reimbursed by another third party, or provided as a relocation allowance associated with a new position.

(e) Employee and Aastrom acknowledge the foregoing severance pay is in lieu of, and in replacement of, and supersedes all other prior agreements for severance pay to Employee.

(f) Aastrom retains and reserves the right to terminate the employment of Employee at any time, with or without Cause. Upon a termination without Cause with respect to a Merger Transaction, the severance pay specified in Section 1(a) above shall become payable. For avoidance of doubt, said severance payment shall not be owed if Employee's termination is for Cause, or if Employee voluntarily terminates employment for reasons other than as specified in Sections 1(b) or 1(c) hereof.

(g) No director, officer or shareholder of Aastrom shall have any personal liability for the payment of any severance to Employee.

2. Retention Bonus for Merger Transaction. With respect to a Merger

Transaction which is consummated (e.g. approval by shareholders is received) prior to July 1, 2001, if Employee remains employed by the surviving successor entity through the first anniversary following the consummation of the Merger Transaction, then the surviving successor entity shall pay to Employee a retention bonus equal to six (6) months of Employee's then current salary rate, less customary payroll deductions.

3. Retention Bonus for Acquisition Transaction. With respect to an

Acquisition Transaction which is consummated prior to July 1, 2001, if Employee remains employed by Aastrom through the first anniversary of the consummation of the Acquisition Transaction, then Aastrom shall pay to Employee a retention bonus equal to six (6) months of Employee's then current salary rate, less customary payroll deductions. However, if Employee's employment is terminated by Aastrom without Cause during the one (1) year period immediately following the consummation of the Acquisition Transaction, then the retention bonus shall be paid, not withstanding the fact that the employment had not continued up through the first anniversary.

4. Exclusive Remedy. The parties acknowledge and agree that the

payments specified herein constitute Employee's sole and exclusive remedy for any alleged injury or other damages arising out of a termination of Employee's employment under circumstances described herein. Accordingly, as a condition to receipt of said payments, Employee shall sign a customary and reasonable release form, pursuant to which Employee acknowledges and agrees that Employee has no claims against Aastrom or any director, officer, shareholder or agent of Aastrom, or any successor in interest to Aastrom, with respect to any employment matters or termination of employment (excepting only for accrued salary, accrued vacation leave and reimbursement of customary business expenses incurred on behalf of the Company, all in the ordinary course of business, or any incentive sale bonus or relocation bonus to which Employee may be entitled, if any).

5. General.

(a) Prior Understandings. This Agreement supersedes and replaces

all prior agreements and understandings with respect to severance payments upon termination of Employee's employment with Aastrom, and with respect to retention bonus other than for the (i) incentive sale bonus and (ii) the relocation bonus as set forth in separate written agreements, and (iii) stock option vesting covered by Employee's Agreement Regarding Pay to Stay Agreement.

(b) Successors. This Agreement shall bind and inure to the

benefit of the parties' successors, assigns, heirs and legal representatives.

(c) Amendments. This Agreement may be modified, amended or

superseded only by a written document signed by both parties, and shall become a binding obligation of the acquiring entity in a Merger Transaction.

(d) Tax Withholding. The payments to be made pursuant to this

Agreement will be subject to customary withholding of applicable income and employment taxes.

(e) No Personal Liability. No director, officer or shareholder of

Aastrom shall have any personal liability for the payment of any severance to Employee.

(f) Consultation. Employee acknowledges that this Agreement

confers significant legal rights on Employee, and also involves Employee waiving other potential rights he might have under other agreements and laws. Employee acknowledges that Aastrom has encouraged Employee to consult with Employee's own legal, tax, and financial advisers before signing the Agreement; and that Employee has had adequate time to do so before signing this Agreement.

(g) Counterparts. This Agreement may be executed in counterparts,

and each of which shall be deemed an original, but all of which together will constitute one and the same instrument.

IN WITNESS WHEREOF, the parties have executed and delivered this Agreement as of ______, 2000.

EMPLOYER

AASTROM BIOSCIENCES, INC., a Michigan Corporation

By:	
Its:	

EMPLOYEE

RELOCATION BONUS AGREEMENT

This Agreement is made by and between Aastrom Biosciences, Inc., a Michigan Corporation ("Aastrom") and [_____] ("Employee"), as a supplement to the existing Employment Agreement pursuant to which Aastrom has employed Employee.

RECITALS

A. Aastrom currently employs Employee in the position of Vice President.

B. This Agreement is being entered into to provide Employee with sufficient incentives and encouragements for Employee to remain with Aastrom, notwithstanding the possibility of the occurrence in the future of a Merger Transaction (as defined below) and a request for Employee to relocate following such Merger Transaction.

C. As used in this Agreement, the following terms shall have the following meanings:

"Cause" means the occurrence of any of the following events, as

determined by the Board of Directors of Aastrom, in good faith:

Employee's theft, material act of dishonesty, fraud, or (i) intentional falsification of any records of Aastrom;

Employee's improper use or disclosure of confidential (ii) or proprietary information of Aastrom;

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

Employee's conviction (including any plea of guilty or (iv) nolo contendre) of a crime of moral turpitude causing material harm to the reputation or standing of Aastrom or which materially impairs Employee's ability to perform his duties for Aastrom.

"Change in Control" shall mean the occurrence of any of the following

events:

sold;

All or substantially all of the assets of Aastrom are (i)

(ii) Aastrom is acquired by another company, by merger or by acquisition of the stock of the Company, after which the previous shareholders of Aastrom own less than 50% of all of the voting stock of the surviving entity.

"Merger Transaction" means a transaction pursuant to which Aastrom is acquired by another entity, thereby resulting in a Change in Control of Aastrom.

WHEREFORE, the parties mutually agree as follow:

1. Relocation Bonus. With respect to a Merger Transaction, in the

event the surviving successor entity requests Employee to relocate more than 50 miles from Ann Arbor, Michigan, and such relocation occurs within two (2) years following the consummation of the Merger Transaction, and Employee stays employed with the surviving successor entity for one (1) year after such relocation bonus equal to six (6) months of Employee's then current salary rate, less customary payroll deductions to be paid immediately upon completion of the one year of employment. Additionally, Employee shall be entitled to receive customary relocation, then this relocation bonus Surviving successor entity for a further, if the surviving successor entity terminates Employee's employment without Cause during said one (1) year period after a relocation, then this relocation bonus shall nevertheless still be payable in full even though the employment did not continue for the one (1) year period.

2. Duplication. For avoidance of doubt, if the relocation bonus is

payable pursuant to the terms of Section 1 above, said bonus payment shall be in addition to, and not in lieu of any other payments to which Employee may be entitled (e.g., Change of Control severance pay for a termination within one (1) year following consummation of a Merger Transaction, or retention bonus for remaining employed for one (1) year after the consummation of the Merger Transaction, as specified in the separate Retention Bonus Agreement between Aastrom and Employee).

3. General.

(a) Prior Understandings. This Agreement supersedes and replaces
 all prior agreements and understandings with respect to relocation bonus.

and and charactering with respect to recould bonds.

(b) Successors. This Agreement shall bind and inure to the

benefit of the parties' successors, assigns, heirs and legal representatives, and shall become binding by the acquiring company in a Merger Transaction.

(c) Amendments. This Agreement may be modified, amended or superseded only by a written document signed by both parties.

(d) Tax Withholding. The payments to be made pursuant to this

Agreement will be subject to customary withholding of applicable income and employment taxes.

(e) No Personal Liability. No director, officer or shareholder of

Aastrom shall have any personal liability for the payment of any severance to $\ensuremath{\mathsf{Employee}}$.

(f) Consultation. Employee acknowledges that this Agreement

confers significant legal rights on Employee, and also involves Employee waiving other potential rights he might have under other agreements and laws. Employee acknowledges that Aastrom has encouraged Employee to consult with Employee's own legal, tax, and financial advisers before signing the Agreement; and that Employee has had adequate time to do so before signing this Agreement.

(g) Counterparts. This Agreement may be executed in counterparts,

and each of which shall be deemed an original, but all of which together will constitute one and the same instrument.

IN WITNESS WHEREOF, the parties have executed and delivered this $\ensuremath{\mathsf{Agreement}}$ as of

AASTROM BIOSCIENCES, INC., a Michigan Corporation

By:		
Its:		

EMPLOYEE

CONSENT OF INDEPENDENT ACCOUNTANTS

We hereby consent to the incorporation by reference in each Registration Statement on Form S-8 (Nos. 333-38886, 333-25021) and Form S-3 (Nos. 333-39698, 333-32914, 333-92675, 333-81399 and 333-60125) of Aastrom Biosciences, Inc. of our report dated August 4, 2000 relating to the financial statements which appears in this Form 10-K.

PricewaterhouseCoopers LLP

Minneapolis, Minnesota September 20, 2000

THIS SCHEDULE CONTAINS SUMMARY FINANCIAL INFORMATION EXTRACTED FROM THE COMPANY'S ANNUAL REPORT ON FORM 10-K FOR THE YEAR ENDED JUNE 30, 2000, AND IS QUALIFIED IN ITS ENTIRETY BY REFERENCE TO SUCH FINANCIAL STATEMENTS.

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                  JUN-30-2000
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10,681,000
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