AS FILED WITH THE SECURITIES AND EXCHANGE COMMISSION ON DECEMBER 19, 1996
REGISTRATION NO. 333-15415

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

AMENDMENT NO. 2
TO
FORM S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

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

MICHIGAN	2834	94-3096597
(State or other jurisdiction of incorporation or organization)	(Primary Standard Industrial Classification Code Number)	(IRS Employer Identification No.)

24 FRANK LLOYD WRIGHT DRIVE
P.O. BOX 376
ANN ARBOR, MICHIGAN 48106
(313) 930-5555
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

R. DOUGLAS ARMSTRONG, PH.D.
PRESIDENT, CHIEF EXECUTIVE OFFICER
AASTROM BIOSCIENCES, INC.
24 FRANK LLOYD WRIGHT DRIVE
P.O. BOX 376
ANN ARBOR, MICHIGAN 48106
(313) 930-5555
(Name, address, including zip code, and telephone number, including area code, of agent for service)

COPIES TO:

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GRAY CARY WARE & FREIDENRICH	NEW YORK, NEW YORK 10019
4365 EXECUTIVE DRIVE, SUITE 1600	
SAN DIEGO, CALIFORNIA 92121	

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

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

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

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

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

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the Registration Statement shall become effective on such date as the Commission acting pursuant to said Section 8(a), may determine.

+INFORMATION CONTAINED HEREIN IS SUBJECT TO COMPLETION OR AMENDMENT. A REGISTRATION STATEMENT RELATING TO THESE SECURITIES HAS BEEN FILED WITH THE SECURITIES AND EXCHANGE COMMISSION. THESE SECURITIES MAY NOT BE SOLD NOR MAY OFFERS TO BUY BE ACCEPTED PRIOR TO THE TIME THE REGISTRATION STATEMENT BECOMES EFFECTIVE. THIS PROSPECTUS SHALL NOT CONSTITUTE AN OFFER TO SELL OR THE SOLICITATION OF AN OFFER TO BUY NOR SHALL THERE BE ANY SALE OF THESE SECURITIES IN ANY STATE IN WHICH SUCH OFFER, SOLICITATION OR SALE WOULD BE UNLAWFUL PRIOR TO REGISTRATION OR QUALIFICATION UNDER THE SECURITIES LAWS OF ANY SUCH STATE.

PROSPECTUS (Subject to Completion)

Dated December 19, 1996

3,250,000 Shares

[LOGO OF AASTROM BIOSCIENCES INC]

Common Stock

All of the shares of Common Stock, no par value per share (the "Common Stock"), offered are being sold by Aastrom Biosciences, Inc. ("Aastrom" or the "Company").

Prior to this offering, there has been no public market for the Common Stock of the Company. It is currently estimated that the initial public offering price will be between $8.00 and $10.00 per share. See "Underwriting" for a discussion of the factors considered in determining the initial public offering price. The Company has applied for quotation of the Common Stock on the Nasdaq National Market under the symbol "ASTM."

Cobe Laboratories, Inc. has agreed to purchase $5,000,000 of shares of Common Stock in this offering at the Price to the Public set forth below. See "Certain Transactions."

THIS OFFERING INVOLVES A HIGH DEGREE OF RISK. SEE "RISK FACTORS" BEGINNING ON PAGE 5 OF THIS PROSPECTUS.

THESE SECURITIES HAVE NOT BEEN APPROVED OR DISAPPROVED BY THE SECURITIES AND EXCHANGE COMMISSION OR ANY STATE SECURITIES COMMISSION NOR HAS THE SECURITIES AND EXCHANGE COMMISSION OR ANY STATE SECURITIES COMMISSION PASSED UPON THE ACCURACY OR ADEQUACY OF THIS PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

	Price to Public	Underwriting Discounts and Commissions(1)	Proceeds to Company(2)
Per Share.....	$	$	$
Total(3).....	$	$	$

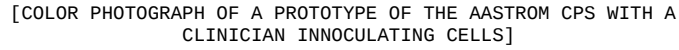
(1) The Company has agreed to indemnify the Underwriters against certain liabilities, including liabilities under the Securities Act of 1933. See "Underwriting."
(2) Before deducting expenses payable by the Company, estimated to be $900,000.
(3) The Company has granted to the Underwriters an option, exercisable within 30 days of the date hereof, to purchase an aggregate of up to 487,500 additional shares at the Price to Public less Underwriting Discounts and Commissions to cover over-allotments, if any. If all such additional shares are purchased, the total Price to Public, Underwriting Discounts and Commissions and Proceeds to Company will be $, $ and $, respectively. See "Underwriting."

The Common Stock is offered by the several Underwriters named herein when, as and if received and accepted by them, subject to their right to reject orders in whole or in part and subject to certain other conditions. It is expected that delivery of the certificates for the shares will be made at the offices of Cowen & Company, New York, New York, on or about , 1997.

COWEN & COMPANY J.P. MORGAN & CO.

, 1997

[COLOR FLOW CHART DEPICTING "STEM CELL THERAPY METHODS" DESCRIBING STEM CELL THERAPY UTILIZING BONE MARROW HARVEST, PROGENITOR BLOOD CELL MOBILIZATION AND THE AASTROM CPS]



A prototype of the Aastrom CPS is currently being used in a clinical trial and ongoing development activities are directed at completing production level components of the Aastrom CPS. The Company may not market the Aastrom CPS unless and until FDA and other necessary regulatory approvals are received.

IN CONNECTION WITH THIS OFFERING, THE UNDERWRITERS MAY OVER-ALLOT OR EFFECT TRANSACTIONS WHICH STABILIZE OR MAINTAIN THE MARKET PRICE OF THE COMMON STOCK OFFERED HEREBY AT A LEVEL ABOVE THAT WHICH MIGHT OTHERWISE PREVAIL IN THE OPEN MARKET. SUCH TRANSACTIONS MAY BE EFFECTED ON THE NASDAQ NATIONAL MARKET, IN THE OVER-THE-COUNTER MARKET OR OTHERWISE. SUCH STABILIZING, IF COMMENCED, MAY BE DISCONTINUED AT ANY TIME.

PROSPECTUS SUMMARY

The following summary is qualified in its entirety by the more detailed information and financial statements, including the notes thereto, appearing elsewhere in this Prospectus. Prospective investors should carefully consider the information set forth under the heading "Risk Factors."

THE COMPANY

Aastrom Biosciences, Inc. is developing proprietary process technologies and devices for a range of cell therapy applications, including stem cell therapies and gene therapy. The Company's lead product under development, the Aastrom Cell Production System (the "Aastrom CPS") consists of a clinical cell culture system with disposable cassettes and reagents for use in the rapidly growing stem cell therapy market. The Company believes that the Aastrom CPS method will be less costly, less invasive and less time consuming than currently available stem cell collection methods. The Aastrom CPS is designed as a platform product which implements the Company's pioneering stem cell replication technology. The Company also believes that the Aastrom CPS can be modified to produce a wide variety of other cell types for new, emerging therapies being developed by others. Prior to commencement of multiple-site pivotal trials, the Company is conducting a limited "pre-pivotal" trial of the Aastrom CPS under an Investigational Device Exemption for use in stem cell therapy. The Company has entered into a strategic collaboration for the development of the Aastrom CPS in stem cell therapy with Cobe BCT, Inc., a subsidiary of Gambro AB and a leading provider of blood cell processing products. In ex vivo gene therapy, the genetic manipulation of cells outside of the body for use in therapy, the Company is developing proprietary processes and the Aastrom CPS to enable high efficiency genetic modification and production of cells, respectively.

Stem cell therapy is a rapidly growing form of cell therapy used to restore blood and immune system function to cancer patients following chemotherapy or radiation therapy and, according to an industry source, approximately 32,000 stem cell therapy procedures were completed worldwide in 1995. Other novel cell therapies are under development by third parties, including stem cell therapy for the treatment of autoimmune diseases and for augmenting recipient acceptance of organ transplants. Current stem cell therapy methods, including bone marrow harvest and peripheral blood progenitor cell mobilization, are costly, invasive and time-consuming for both medical personnel and patients. Technologies which facilitate a more readily available source of cells may contribute to additional growth in cell therapy procedures. Umbilical cord blood ("UCB") is emerging as a new source of cells for stem cell therapy, offering additional market opportunity, although the more widespread use of UCB transplants has been restricted by cell quantity limitations, which the Company believes may ultimately be addressed by the Aastrom CPS.

The Company believes that the Aastrom CPS will offer significant advantages over traditional stem cell collection methods. The Aastrom CPS is intended to be used to produce cells used for therapy from a small starting volume of bone marrow cells. Compared with current methods, the Aastrom CPS is expected to involve two patient care episodes rather than approximately eight to 21 care episodes, less than three hours of patient procedure time rather than approximately 16 to 39 hours of patient procedure time and approximately four to ten needle sticks rather than 22 or more needle sticks over the course of collection and infusion. The Aastrom CPS may also permit higher and more frequent doses of chemotherapy to be administered to cancer patients by enabling the production of multiple doses of cells from patient samples taken at the initial collection.

Aastrom is currently conducting a pre-pivotal stem cell therapy trial. The trial is designed to show that cells produced in the Aastrom CPS can by themselves safely enable recovery of bone marrow and cells of the blood and immune systems in accordance with trial endpoints in patients who have received chemotherapy which has destroyed cells of the blood and immune systems. Based on the outcome of this and other related trials, the Company intends to seek FDA approval to begin a multi-center pivotal trial for use of the Aastrom CPS in stem cell therapy. It is anticipated that the results of this pivotal trial will be used to support the Company's Pre-Market Approval ("PMA") submission to the FDA. In the near future, the Company plans to initiate a stem cell therapy clinical trial in Europe, the results of which are expected to be used for the CE Mark registration necessary to market the Aastrom CPS in Europe.

The Company's business strategy is to: (i) establish a consumable-based business model; (ii) focus initially on the currently-reimbursed stem cell therapy market; (iii) leverage Aastrom's cell production technology across multiple cell therapy market opportunities; and (iv) market through collaborative relationships.

Aastrom has entered into a strategic collaboration with Cobe BCT to support the development and marketing of the Aastrom CPS in the field of stem cell therapy. In 1993, the Company entered into a series of agreements in which Cobe BCT purchased $15,000,000 of the Company's equity securities and acquired the worldwide distribution rights to the Aastrom CPS for stem cell therapy. Under the terms of the collaboration, Aastrom retains manufacturing rights and 58% to 60% of all revenue generated by Cobe BCT's sale of the Aastrom CPS, subject to the Company's obligation to make certain royalty payments. Aastrom also retains all marketing and distribution rights to the Aastrom CPS for other cell types and ex vivo gene therapy applications, including stem cells. Cobe Laboratories Inc., an affiliate of Cobe BCT, has agreed to purchase $5,000,000 of Common Stock in this offering at the initial public offering price per share.

The Company's patent portfolio includes patents relating to both stem and progenitor cell production, processes for the genetic modification of stem and other cell types, and cell culture devices for human cells. As of September 30, 1996, the Company had exclusive rights to five issued U.S. and three foreign patents, and a number of U.S. patent applications and certain corresponding foreign applications.

THE OFFERING

Common Stock offered	3,250,000 shares(1)
Common Stock to be outstanding after this offering	13,235,734 shares(2)
Use of proceeds	For clinical trials, the development and manufacture of the Aastrom CPS, research and development of other product candidates, working capital and other general corporate purposes.
Proposed Nasdaq National Market symbol	ASTM

SUMMARY FINANCIAL DATA

	YEAR ENDED JUNE 30,					THREE MONTHS ENDED SEPTEMBER 30,	
	1992	1993	1994	1995	1996	1995	1996
STATEMENT OF OPERATIONS DATA:							
Total revenues	$ --	$ 784,000	$ 872,000	$ 517,000	$ 1,609,000	$ 211,000	$ 224,000
Costs and expenses:							
Research and development	1,090,000	2,600,000	5,627,000	4,889,000	10,075,000	1,195,000	3,160,000
General and administrative	272,000	1,153,000	1,565,000	1,558,000	2,067,000	446,000	452,000
Total costs and expenses	1,362,000	3,753,000	7,192,000	6,447,000	12,142,000	1,641,000	3,612,000
Other income, net	94,000	122,000	180,000	213,000	616,000	131,000	115,000
Net loss	$(1,268,000)	$(2,847,000)	$(6,140,000)	$(5,717,000)	$(9,917,000)	$(1,299,000)	$(3,273,000)
Pro forma net loss per share(3)	$ (.32)	$ (.49)	$ (.82)	$ (.66)	$ (.98)	$ (.13)	$ (.32)
Pro forma weighted average number of shares outstanding(3)	3,919,000	5,840,000	7,461,000	8,644,000	10,103,000	10,094,000	10,107,000

	SEPTEMBER 30, 1996	
	ACTUAL	AS ADJUSTED(4)
BALANCE SHEET DATA:		
Cash, cash equivalents and short-term investments	$ 7,108,000	$33,410,500
Working capital	6,540,000	32,842,500
Total assets	8,931,000	35,233,500
Deficit accumulated during the development stage	(30,298,000)	(30,298,000)
Total shareholders' equity	7,618,000	33,920,500

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(1) Includes 555,556 shares which Cobe Laboratories, Inc. has agreed to purchase, assuming an initial public offering price of $9.00 per share.

(2) Excludes options and warrants to purchase 1,132,361 shares of Common Stock at a weighted average exercise price of $6.50 per share, assuming the closing of this offering at an initial public offering price of $9.00 per share. See "Management--Stock Option and Employee Benefit Plans" and Notes 4 and 9 of Notes to Financial Statements.

(3) See Note 1 of Notes to Financial Statements for information concerning the computation of pro forma net loss per share and shares used in computing pro forma net loss per share.

(4) Adjusted to reflect the sale by the Company of 3,250,000 shares of Common Stock offered hereby at an assumed initial public offering price of $9.00 per share, after deduction of underwriting discounts and commissions and estimated offering expenses. See "Use of Proceeds" and "Capitalization."

Unless otherwise indicated, all information contained in this Prospectus (i) gives effect to a two-for-three reverse stock split to be effected prior to the closing of this offering, (ii) gives effect to the conversion of all outstanding shares of the Company's Preferred Stock into 8,098,422 shares of Common Stock upon the closing of this offering, (iii) gives effect to the filing of an Amended and Restated Articles of Incorporation upon the closing of this offering to, among other things, create a new class of undesignated preferred stock and (iv) assumes no exercise of the Underwriters' over-allotment option. See "Description of Capital Stock" and "Underwriting." This Prospectus contains forward-looking statements which involve risks and uncertainties. The Company's actual results may differ significantly from the results discussed in the forward-looking statements. Factors that might cause such differences include, but are not limited to, those discussed in "Risk Factors."

RISK FACTORS

In addition to the other information in this Prospectus, prospective investors should consider the following risk factors in evaluating the Company and its business before purchasing any of the Common Stock offered hereby.

UNCERTAINTIES RELATED TO PRODUCT DEVELOPMENT AND MARKETABILITY

The Company has not completed the development or clinical trials of any of its cell culture technologies or product candidates and, accordingly, has not begun to market or generate revenue from their commercialization. Furthermore, the Company's technologies and product candidates are based on cell culture processes and methodologies which are not widely employed. Commercialization of the Company's lead product candidate, the Aastrom CPS, will require substantial additional research and development by the Company as well as substantial clinical trials. There can be no assurance that the Company will successfully complete development of the Aastrom CPS or its other product candidates, or successfully market its technologies or product candidates, which lack of success would have a material adverse effect on the Company's business, financial condition and results of operations.

The Company or its collaborators may encounter problems and delays relating to research and development, regulatory approval and intellectual property rights of the Company's technologies and product candidates. There can be no assurance that the Company's research and development programs will be successful, that its cell culture technologies and product candidates will facilitate the ex vivo production of cells with the expected biological activities in humans, that its technologies and product candidates, if successfully developed, will prove to be safe and efficacious in clinical trials, that the necessary regulatory approvals for any of the Company's technologies or product candidates and the cells produced in such products will be obtained or, if obtained, will be as broad as sought, that patents will issue on the Company's patent applications or that the Company's intellectual property protections will be adequate. The Company's product development efforts are primarily directed toward obtaining regulatory approval to market the Aastrom CPS as an alternative to the bone marrow harvest and peripheral blood progenitor cell ("PBPC") stem cell collection methods. These stem cell collection methods have been widely practiced for a number of years, and there can be no assurance that any of the Company's technologies or product candidates will be accepted by the marketplace as readily as these or other competing processes and methodologies, or at all. The failure by the Company to achieve any of the foregoing would have a material adverse effect on the Company's business, financial condition and results of operations.

UNCERTAINTIES RELATED TO CLINICAL TRIALS

The approval of the United States Food and Drug Administration (the "FDA") will be required before any commercial sales of the Company's product candidates may commence in the United States, and approvals from foreign regulatory authorities will be required before international sales may commence. Prior to obtaining necessary regulatory approvals, the Company will be required to demonstrate the safety and efficacy of its processes and product candidates and the cells produced by such processes and in such products for application in the treatment of humans through extensive preclinical studies and clinical trials. To date, the Company has only tested the safety of cells produced in the cell culture chamber predecessor of the Aastrom CPS, and only in a limited numbers of patients. The Company is currently conducting a pre-pivotal clinical trial to demonstrate the safety and biological activity of patient-derived cells produced in the Company's cell culture chamber in a limited number of patients with breast cancer and, if the results from this pre-pivotal trial are successful, the Company intends to seek clearance from the FDA to commence its pivotal clinical trial. The results of preclinical studies and clinical trials of the Company's product candidates, however, may not necessarily be predictive of results that will be obtained from subsequent or more extensive clinical trials. Further, there can be no assurance that pre-pivotal or pivotal clinical trials of any of the Company's product candidates will demonstrate the safety and efficacy of such products, or of the cells produced in such products, to the extent necessary to obtain required regulatory approvals or market acceptance.

The ability of the Company to complete its clinical trials in a timely manner is dependent upon many factors, including the rate of patient enrollment. Patient enrollment is a function of many factors, including the size of the patient population, the proximity of suitable patients to clinical sites and the eligibility criteria for the

study. The Company has experienced delays in patient accrual in its current pre-pivotal clinical trial. Further delays in patient accrual, in the Company's current pre-pivotal clinical trial or in future clinical trials, could result in increased costs associated with clinical trials or delays in receiving regulatory approvals and commercialization, if any. Furthermore, the progress of clinical investigations with the Aastrom CPS and the Company's other product candidates will be monitored by the FDA, which has the authority to cease clinical investigations, at any time, due to patient safety or other considerations. Any of the foregoing would have a material adverse effect on the Company's business, financial condition and results of operations. See "--Uncertainty of Regulatory Approval; --Extensive Government Regulation."

The Company's current pre-pivotal trial is designed to demonstrate specific biological safety and activity of cells produced in the Aastrom CPS, but is not designed to demonstrate long-term sustained engraftment of such cells. The patients enrolled in this pre-pivotal trial will have undergone extensive chemotherapy treatment prior to the infusion of cells produced in the Aastrom CPS. Such treatments will have substantially weakened these patients and may have irreparably damaged their hematopoietic systems. Due to these and other factors, it is possible that one or more of these patients may die or suffer severe complications during the course of the pre-pivotal trial. Further, there can be no assurance that patients receiving cells produced with the Company's technologies and product candidates will demonstrate long-term engraftment in a manner comparable to cells obtained from current stem cell therapy procedures, or at all. The failure to adequately demonstrate the safety or efficacy of the Company's technologies and product candidates, including long-term sustained engraftment, or the death of, or occurrence of severe complications in, one or more patients could substantially delay, or prevent, regulatory approval of such product candidates and have a material adverse effect on the Company's business, financial condition and results of operations.

MANUFACTURING AND SUPPLY UNCERTAINTIES; DEPENDENCE ON THIRD PARTIES

The Company does not operate and has no current intention to operate manufacturing facilities for the production of its product candidates. The Company currently arranges for the manufacture of its product candidates and their components, including certain cytokines, serum and media, with third parties, and expects to continue to do so in the forseeable future. The Company has entered into collaborative product development and supply agreements with SeaMED Corporation ("SeaMED"), Ethox Corporation ("Ethox") and Anchor Advanced Products Inc., Mid-State Plastics Division ("MSP") for the collaborative development and manufacture of certain components of the Aastrom CPS and is dependent upon those suppliers to manufacture its products. The Company is also dependent upon Immunex Corporation ("Immunex"), Life Technologies, Inc. and Biowhittaker for the supply of certain cytokines, serum and media to be used in conjunction with the Aastrom CPS. With regard to cytokines that are not commercially available from other sources, Immunex is currently the Company's sole supplier and few alternative supply sources exist. Apart from SeaMED, Ethox, MSP and Immunex, the Company currently does not have contractual commitments from any of these manufacturers or suppliers. There can be no assurance that the Company's supply of such key cytokines, components and other materials will not become limited, be interrupted or become restricted to certain geographic regions. Furthermore, the Company currently only has the right to distribute cytokines obtained from Immunex in the United States and there can be no assurance that the Company will be able to obtain the worldwide right to distribute such cytokines or manufacture such cytokines by or for itself in the event that the Company's agreement with Immunex is terminated. There can also be no assurance that the Company will be able to obtain alternative components and materials from other manufacturers of acceptable quality, or on terms or in quantities acceptable to the Company or that the Company will not require additional cytokines, components and other materials to manufacture or use its product candidates. In the event that any of the Company's key manufacturers or suppliers fail to perform their respective obligations or the Company's supply of such cytokines, components or other materials become limited or interrupted, the Company would not be able to market its product candidates on a timely and cost-competitive basis, if at all, which would have a material adverse effect on the Company's business, financial condition and results of operations.

Like SeaMED, Ethox and MSP, other suppliers would need to meet FDA manufacturing requirements and undergo rigorous facility and process validation tests required by federal and state regulatory authorities. Any

significant delays in the completion and validation of such facilities could have a material adverse effect on the ability of the Company to complete clinical trials and to market its products on a timely and profitable basis, which in turn would have a material adverse effect on the Company's business, financial condition and results of operations.

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

HISTORY OF OPERATING LOSSES; ANTICIPATION OF FUTURE LOSSES

The Company is a development stage company and there can be no assurance that its product applications for cell therapy will be successful. The Company has not yet completed the development and clinical trials of any of its product candidates and, accordingly, has not yet begun to generate revenues from the commercialization of any of its product candidates. Aastrom was incorporated in 1989 and has experienced substantial operating losses since inception. As of September 30, 1996, the Company has incurred net operating losses totaling approximately $30.3 million. Such losses have resulted principally from costs incurred in the research and development of the Company's cell culture technologies and the Aastrom CPS, general and administrative expenses, and the prosecution of patent applications. The Company expects to incur significant and increasing operating losses for at least the next several years, primarily owing to the expansion of its research and development programs, including preclinical studies and clinical trials. The amount of future losses and when, if ever, the Company will achieve profitability, are uncertain. The Company's ability to achieve profitability will depend, among other things, on successfully completing the development of its product candidates, obtaining regulatory approvals, establishing manufacturing, sales and marketing arrangements with third parties, and raising sufficient funds to finance its activities. No assurance can be given that the Company's product development efforts will be successful, that required regulatory approvals will be obtained, that any of the Company's product candidates will be manufactured at a competitive cost and will be of acceptable quality, or that the Company will be able to achieve profitability or that profitability, if achieved, can be sustained.

LIMITED SALES AND MARKETING CAPABILITIES; DEPENDENCE ON COLLABORATIVE RELATIONSHIPS

The Company has limited internal sales, marketing and distribution capabilities. If any of the Company's product candidates are successfully developed and the necessary regulatory approvals are obtained, the Company intends to market such products through collaborative relationships with companies that have established sales, marketing and distribution capabilities. The Company has established a strategic alliance with Cobe Laboratories, Inc. and Cobe BCT, Inc. (collectively, "Cobe") for the worldwide distribution of the Aastrom CPS for stem cell therapy and related uses. Cobe has the right to terminate its Distribution Agreement with the Company upon twelve months' notice upon a change of control of the Company, other than to Cobe, or at any time after December 31, 1997, if Cobe determines that commercialization of the Aastrom CPS for stem cell therapy on or prior to December 31, 1998 is unlikely. See "--Consequences of Cobe Relationship."

The amount and timing of resources that Cobe commits to its strategic alliance activities with the Company are, to a significant extent, outside of the control of the Company. There can be no assurance that Cobe will pursue the marketing and distribution of the Company's products, continue to perform its obligations under its agreements with the Company or that the Company's strategic alliance with Cobe will result in the successful commercialization and distribution of the Company's technologies and product candidates. There can also be no assurance that Cobe will be successful in its efforts to market and distribute the Company's products for stem cell therapy. The suspension or termination of the Company's strategic alliance with Cobe or the failure of the strategic alliance to be successful would have a material adverse effect on the Company's business, financial condition and results of operations.

Subject to the contractual requirements of the Cobe relationship, the Company will seek to enter into other agreements relating to the development and marketing of product candidates and in connection with such agreements may rely upon corporate partners to conduct clinical trials, seek regulatory approvals for, manufacture and market its potential products. There can be no assurance that the Company will be able to establish collaborative relationships for the development or marketing of the Company's product candidates on acceptable terms, if at all. The inability of the Company to establish such collaborative relationships may require the Company to curtail its development or marketing activities with regard to its potential products which would have a material adverse effect on the Company's business, financial condition and results of operations.

FUTURE CAPITAL NEEDS; UNCERTAINTY OF ADDITIONAL FUNDING

To date, Aastrom has funded its operations primarily through the sale of equity securities and corporate collaborations. The Company anticipates that the net proceeds of this offering, together with the Company's available cash and expected interest income thereon, will be sufficient to finance its research and development and other working capital requirements until late 1998. This estimate is based on certain assumptions which could be negatively impacted by the matters discussed under this heading and elsewhere under the caption "Risk Factors." In order to grow and expand its business, and to introduce its product candidates into the marketplace, the Company will need, among other things, to raise additional funds. The development of the Company's products for the expansion of additional cell types will require the Company to raise additional funds or to seek collaborative partners, or both, to finance related research and development activities.

The Company's future capital requirements will depend upon many factors, including, but not limited to, continued scientific progress in its research and development programs, costs and timing of conducting clinical trials and seeking regulatory approvals and patent prosecutions, competing technological and market developments, possible changes in existing collaborative relationships, the ability of the Company to establish additional collaborative relationships, and effective commercialization activities and facilities expansions if and as required. Because of the Company's potential long-term funding requirements, it may attempt to access the public or private equity markets if and whenever conditions are favorable, even if it does not have an immediate need for additional capital at that time. There can be no assurance that any such additional funding will be available to the Company on reasonable terms, or at all. If adequate funds are not available, the Company may be required to delay or terminate research and development programs, curtail capital expenditures, and reduce business development and other operating activities. If the Company is not successful in finding, entering into and maintaining arrangements with collaborative partners, its development efforts could be delayed. Furthermore, there can be no assurance that the Company will be able to implement collaborative development agreements under acceptable terms, if at all. Any of the foregoing capital constraints would have a material adverse effect on the Company's business, financial condition and results of operations. See "Management's Discussion and Analysis of Financial Condition and Results of Operations--Liquidity and Capital Resources."

UNCERTAINTY OF REGULATORY APPROVAL; EXTENSIVE GOVERNMENT REGULATION

The Company's research and development activities, preclinical studies, clinical trials, and the anticipated manufacturing and marketing of its product candidates are subject to extensive regulation by the FDA and other regulatory authorities in the United States. These activities are also regulated in other countries where the Company intends to test and market its product candidates. The approval of the FDA will be required before any commercial sales of the Company's product candidates may commence in the United States. Additionally, the Company will be required to obtain approvals from foreign regulatory authorities before international sales may commence.

The Company's products are potentially subject to regulation as medical devices under the Federal Food, Drug, and Cosmetic Act, or as biological products under the Public Health Service Act, or both. Different regulatory requirements may apply to the Company'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 Aastrom CPS for stem cell

therapy as a Class III medical device through the Center for Biologics Evaluation and Research. However, there can be no assurance that the FDA will ultimately regulate the Aastrom CPS for stem cell therapy as a medical device or that regulatory approval for such product will be obtained in a timely fashion or at all.

Further, it is unclear whether the FDA will separately regulate the cell therapies derived from the Aastrom CPS. The FDA is in the process of developing its requirements with respect to somatic cell therapy and gene cell therapy products, and recently proposed a new type of license for autologous cells manipulated ex vivo and intended for structural repair or reconstruction; autologous cells are cells obtained from, and administered to, the same patient. This proposal may indicate that the FDA will impose a similar approval requirement on other types of autologous cellular therapies, such as autologous cells for stem cell therapy. Any such additional regulatory or approval requirement could significantly delay the introduction of the Company's product candidates to the market, and have a material adverse effect on the Company's business, financial condition and results of operations. Until the FDA issues definitive regulations covering the Company's product candidates, the regulatory requirements for approval of such product candidates will continue to be subject to significant uncertainty.

Before marketing, the Aastrom CPS or other product candidates developed by the Company must undergo an extensive regulatory approval process. The regulatory process, which includes preclinical studies and clinical trials to establish safety and efficacy, takes many years and requires the expenditure of substantial resources. Data obtained from preclinical and clinical activities are susceptible to varying interpretations which could delay, limit or prevent FDA approval. In addition, delays or rejections may be encountered based upon changes in FDA policy for medical product approvals during the period of product development and FDA regulatory review of applications submitted by the Company for product approval. Similar delays may also be encountered in foreign countries. There can be no assurance that, even after the expenditures of substantial time and financial resources, regulatory approval will be obtained for any products developed by the Company. Moreover, if regulatory approval of a product is obtained, such approval may be subject to limitations on the indicated uses for which it may be marketed. Further, even if such regulatory approval is obtained, a marketed product, its manufacturer and its manufacturing facilities are subject to continual review and periodic inspections by the FDA, and later discovery of previously unknown problems with a product, manufacturer or facility may result in restrictions on such product or manufacturer, including a withdrawal of the product from the market. Failure to comply with the applicable regulatory requirements can, among other things, result in fines, suspensions of regulatory approvals, product recalls, operating restrictions and criminal prosecution. Further, additional government regulation may be established which could prevent or delay regulatory approval of the Company's products. See "Business--Government Regulation."

CONSEQUENCES OF COBE RELATIONSHIP

Following the completion of this offering, Cobe will be the largest single shareholder of the Company, beneficially owning approximately 23.1% of the outstanding Common Stock. In addition, Cobe has certain preemptive rights to maintain its relative percentage ownership and voting interest in the Company following this offering, and has the option, for a period of three years following this offering, to purchase from the Company an amount of Common Stock equal to 30% of the Company's fully diluted shares after the exercise of such option, at a purchase price equal to 120% of the public market trading price of the Company's Common Stock. If such option is exercised, Cobe would significantly increase its ownership interest in the Company and, as a consequence of such share ownership, obtain effective control of the Company. Such effective control would include the ability to influence the outcome of shareholder votes, including votes concerning the election of directors, the amendment of provisions of the Company's Restated Articles of Incorporation or Bylaws, and the approval of mergers and other significant transactions. Cobe also has been granted a "right of first negotiation" in the event that the Company determines to sell all, or any material portion, of its assets to another company or to merge with another company. Furthermore, the Company has agreed to use reasonable and good faith efforts to cause a nominee designated by Cobe to be elected to the Board of Directors for as long as Cobe owns at least 15% of the outstanding Common Stock. In addition, Edward C. Wood, Jr., the President of Cobe BCT, is a

director of the Company. The existence of the foregoing rights or the exercise of such control by Cobe could have the effect of delaying, deterring or preventing certain takeovers or changes in control of the management of the Company, including transactions in which shareholders might otherwise receive a premium for their shares over then current market prices. See "Description of Capital Stock--Rights of Cobe."

UNCERTAINTY REGARDING 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, preserve its trade secrets, defend and enforce its rights against infringement and operate without infringing the proprietary rights of third parties, both in the United States and in other countries. 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 the Company or its licensors will be issued, that the scope of any patent protection will exclude competitors or provide competitive advantages to the Company, that any of the patents that have been or may be issued to the Company 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 the Company. Furthermore, there can be no assurance that others have not developed or will not develop similar products, duplicate any of the Company's products or design around any patents that have been or may be issued to the Company or its licensors. Since patent applications in the United States are maintained in secrecy until patents issue, the Company also cannot be certain that others did not first file applications for inventions covered by the Company's and its licensors' pending patent applications, nor can the Company be certain that it will not infringe any patents that may issue to others on such applications. The Company relies on certain licenses granted by the University of Michigan and Dr. Cremonese for the majority of its patent rights. If the Company breaches such agreements or otherwise fails to comply with such agreements, or if such agreements expire or are otherwise terminated, the Company may lose its rights under the patents held by the University of Michigan and Dr. Cremonese, which would have a material adverse effect on the Company's business, financial condition and results of operation. See "Business--Patents and Proprietary Rights--University of Michigan Research Agreement and License Agreement" and "--Patents and Proprietary Rights--License Agreement with J.G. Cremonese." The Company also relies on trade secrets and unpatentable know-how which it seeks to protect, in part, by confidentiality agreements with its employees, consultants, suppliers and licensees. There can be no assurance that these agreements will not be breached, that the Company would have adequate remedies for any breach, or that the Company's trade secrets or unpatentable know-how will not otherwise become known or be independently developed by competitors.

The Company's success will also depend in part on its ability to develop commercially viable products without infringing the proprietary rights of others. The Company 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 the Company's ability to market its products or maintain its competitive position with respect to its products. If the Company'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, the Company may be subject to infringement actions. In such event, the Company 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 assurance that the Company 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 the Company'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 the Company's business, financial condition and results of operations. If the Company is required to defend itself against charges of patent infringement or to protect its own proprietary rights against third parties, substantial costs will be incurred regardless of whether the Company is successful. Such proceedings are typically protracted with no certainty of success. An adverse outcome could subject the Company to significant liabilities to third parties, and force the Company to curtail or cease its development and sale of its products and processes. See "Business--Patents and Proprietary Rights."

NO ASSURANCE OF THIRD PARTY REIMBURSEMENT

The Company's ability to successfully commercialize its product candidates will depend in part on the extent to which payment for the Company's products and related treatments will be available from government healthcare programs, such as Medicare and Medicaid, as well as private health insurers, health maintenance organizations and other third party payors. Government and other third-party payors are increasingly attempting to contain health care costs, in part by challenging the price of medical products and services. Reimbursement by third-party payors depend 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. Since reimbursement approval is required from each payor individually, seeking such approvals is a time-consuming and costly process which will require the Company to provide scientific and clinical support for the use of each of the Company's products to each payor separately. Significant uncertainty exists as to the payment status of newly approved medical products, and there can be no assurance that adequate third-party payments will be available to enable the Company to establish or maintain price levels sufficient to realize an appropriate return on its investment in product development. If adequate payment levels are not provided by government and third-party payors for use of the Company's products, the market acceptance of those products will be adversely affected.

There can be no assurance that reimbursement in the United States or foreign countries will be available for any of the Company's product candidates, that any reimbursement granted will be maintained, or that limits on reimbursement available from third-party payors will not reduce the demand for, or negatively affect the price of, the Company's products. The unavailability or inadequacy of third-party reimbursement for the Company's product candidates would have a material adverse effect on the Company. Finally, the Company is unable to forecast what additional legislation or regulation relating to the healthcare industry or third-party coverage and reimbursement may be enacted in the future, or what effect such legislation or regulation would have on the Company's business.

COMPETITION AND TECHNOLOGICAL CHANGE

The Company is engaged in the development of medical products and processes which will face competition in a marketplace characterized by rapid technological change. Many of the Company's competitors have significantly greater resources than the Company, and have developed and may develop product candidates and processes that directly compete with the Company's products. Moreover, competitors that are able to achieve patent protection, obtain regulatory approvals and commence commercial sales of their products before the Company, and competitors that have already done so, may enjoy a significant competitive advantage. The Company's product development efforts are primarily directed toward obtaining regulatory approval to market the Aastrom CPS for stem cell therapy. That market is currently dominated by the bone marrow harvest and PBPC collection methods. The Company's clinical data, although early, is inconclusive as to whether or not cells expanded in the Aastrom CPS will enable hematopoietic recovery within the time frames currently achieved by the bone marrow harvest and PBPC collection methods. In addition, the bone marrow harvest and PBPC collection methods have been widely practiced for a number of years and, recently, the patient costs associated with these procedures have begun to decline. There can be no assurance that the Aastrom CPS 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. The Company also 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 the Company has targeted for product development. In particular, the Company is aware that competitors such as Amgen, Inc., CellPro, Incorporated, Systemix, Inc., Baxter Healthcare Corp. and Rhone-Poulenc Rorer Inc. ("RPR") are in advanced stages of development of technologies and products for use in stem cell therapy and other market applications currently being pursued by the Company. In addition, Cobe, a significant shareholder of the Company, is a market leader in the blood cell processing products industry and, accordingly, a potential competitor of the Company. There can be no assurance that developments by others will not render the Company's product candidates or technologies obsolete or noncompetitive, that the Company will be able to keep pace with new technological developments or that the

Company's product candidates will be able to supplant established products and methodologies in the therapeutic areas that are targeted by the Company. The foregoing factors could have a material adverse effect on the Company's business, financial condition and results of operations.

HAZARDOUS MATERIALS

The Company's research and development activities involve the controlled use of hazardous materials, chemicals and various radioactive compounds. The Company is subject to federal, state and local laws and regulations governing the use, manufacture, storage, handling and disposal of such materials and certain waste products. In the event of any contamination or injury from these materials, the Company could be held liable for any damages that result and any such liability could exceed the resources of the Company. Furthermore, the failure to comply with current or future regulations could result in the imposition of substantial fines against the Company, suspension of production, alteration of its manufacturing processes or cessation of operations. There can be no assurance that the Company will not be required to incur significant costs to comply with any such laws and regulations in the future, or that such laws or regulations will not have a material adverse effect on the Company's business, financial condition and results of operations. Any failure by the Company to control the use, disposal, removal or storage of, or to adequately restrict the discharge of, or assist in the cleanup of, hazardous chemicals or hazardous, infectious or toxic substances could subject the Company to significant liabilities, including joint and several liability under certain statutes. The imposition of such liabilities would have a material adverse effect on the Company's business, financial condition and results of operations.

POTENTIAL PRODUCT LIABILITY; AVAILABILITY OF INSURANCE

The Company is, and will continue to be, subject to the risk of product liability claims alleging that the use of its products has adverse effects on patients. This risk exists for product candidates tested in human clinical trials as well as products that are sold commercially, if any. Further, given the medical conditions for which the Aastrom CPS is expected to be utilized, any product liability claim could entail substantial compensatory and punitive damages. The assertion of product liability claims against the Company could result in a substantial cost to, and diversion of efforts by, the Company. There can be no assurance that the Company would prevail in any such litigation or that product liability claims, if made, would not result in a recall of the Company's products or a change in the indications for which they may be used. The Company maintains product liability insurance coverage in the aggregate of $5,000,000 for claims arising from the use of its product candidates in clinical trials. There can be no assurance that the Company will be able to maintain such insurance or obtain product liability insurance in the future to cover any of its product candidates which are commercialized or that such existing or any future insurance and the resources of the Company would be sufficient to satisfy any liability resulting from product liability claims. Consequently, a product liability claim or other claim with respect to uninsured or underinsured liabilities could have a material adverse effect on the Company's business, financial condition and results of operations.

DEPENDENCE ON KEY PERSONNEL

The success of the Company depends in large part upon the Company's ability to attract and retain highly qualified scientific and management personnel. The Company faces competition for such personnel from other companies, research and academic institutions and other entities. There can be no assurance that the Company will be successful in hiring or retaining key personnel. See "Business--Employees" and "Management."

SHARES ELIGIBLE FOR FUTURE SALE

Sales of substantial amounts of Common Stock in the public market following this offering could adversely affect the prevailing market price of the Common Stock and the Company's ability to raise capital in the future. Upon completion of this offering, the Company will have a total of 13,235,734 shares of Common Stock outstanding, of which the 3,250,000 shares offered hereby will be freely tradeable without restriction under the Securities Act of 1933, as amended (the "Securities Act") by persons other than "affiliates" of the Company,

as defined under the Securities Act. The remaining 9,985,734 shares of Common Stock outstanding are "restricted securities" as the term is defined by Rule 144 promulgated under the Securities Act (the "Restricted Shares"). Of the 9,985,734 Restricted Shares, 6,996,920 shares may be sold under Rule 144, subject in some cases to certain volume restrictions and other conditions imposed thereby. An additional 152,056 shares will become eligible for sale 90 days after completion of the offering pursuant to Rule 144 and 701. The remaining 2,836,758 shares will be eligible for sale upon the expiration of their respective holding periods as set forth in Rule 144. The Securities and Exchange Commission has proposed certain amendments to Rule 144 that would reduce by one year the holding periods required for shares subject to Rule 144 to become eligible for resale in the public market. This proposal, if adopted, would permit earlier resale of shares of Common Stock currently subject to holding periods under Rule 144. No assurance can be given concerning whether or when the proposal will be adopted by the Securities and Exchange Commission. Furthermore, 9,947,757 of the Restricted Shares are subject to lock-up agreements expiring 180 days following the date of this Prospectus. Such agreements provide that Cowen & Company may, in its sole discretion and at any time without notice, release all or a portion of the shares subject to these lock-up agreements. Upon the expiration of the lock-up agreements, 7,148,976 of the 9,985,734 Restricted Shares may be sold pursuant to Rule 144 or 701, subject in some cases to certain volume restrictions imposed thereby. Certain existing shareholders have rights to include shares of Common Stock owned by them in future registrations by the Company for the sale of Common Stock or to request that the Company register their shares under the Securities Act. See "Description of Capital Stock--Registration Rights." Following the date of this Prospectus, the Company intends to register on one or more registration statements on Form S-8 approximately 1,837,160 shares of Common Stock issuable under its stock option and stock purchase plans. Of the 1,837,160 shares issuable under its stock option and stock purchase plans, 336,254 shares are subject to outstanding options as of September 30, 1996, all of which shares are subject to lock-up agreements. Shares covered by such registration statements will immediately be eligible for sale in the public market upon the filing of such registration statements. The Company also has issued warrants to purchase 69,444 shares of Common Stock which become exercisable 90 days after the closing of this offering and, upon the effective date of this offering, will grant an immediately exercisable option to purchase 333,333 shares of Common Stock. The shares issuable upon exercise of such warrants and the shares issuable upon exercise of such option will be subject to lock-up agreements. In addition, Cobe has agreed to purchase $5,000,000 of Common Stock in this offering at the initial public offering price per share, all of which shares will be subject to a lock-up agreement. See "Management--Benefit Plans," "Certain Transactions" and "Shares Eligible for Future Sale."

CONTROL BY EXISTING MANAGEMENT AND SHAREHOLDERS

Upon completion of this offering, the Company's directors, executive officers, and certain principal shareholders, including Cobe, affiliated with members of the Board of Directors and their affiliates will beneficially own approximately 44% of the Common Stock (approximately 42% if the Underwriters' over-allotment option is exercised in full). Accordingly, such shareholders, acting together, may have the ability to exert significant influence over the election of the Company's Board of Directors and other matters submitted to the Company's shareholders for approval. The voting power of these holders may discourage or prevent certain takeovers or changes in control of the management of the Company unless the terms are approved by such holders. See "Principal Shareholders."

NO PRIOR PUBLIC MARKET; POSSIBLE STOCK PRICE VOLATILITY

Prior to this offering there has been no public market for the Common Stock, and an active public market for the Common Stock may not develop or be sustained. The initial public offering price will be determined through negotiation between the Company and the Representatives of the Underwriters based on several factors that may not be indicative of future market prices. See "Underwriting" for a discussion of the factors considered in determining the initial public offering price. The trading price of the Common Stock and the price at which the Company may sell securities in the future could be subject to wide fluctuations in response to announcements of clinical results, research activities, technological innovations or new products by the Company or competitors,

changes in government regulation, developments concerning proprietary rights, variations in the Company's operating results, announcements by the Company of regulatory developments, litigation, disputes concerning patents or proprietary rights or public concern regarding the safety, efficacy or other implications of the products or methodologies to be developed by the Company or its collaborators or enabled by the Company's technology, general market conditions, the liquidity of the Company or its ability to raise additional funds, and other factors or events. In addition, the stock market has experienced extreme fluctuations in price and volume. This volatility has significantly affected the market prices for securities of emerging biotechnology companies for reasons frequently unrelated to or disproportionate to the operating performance of the specific companies. These market fluctuations as well as general fluctuations in the stock markets may adversely affect the market price of the Common Stock.

ANTI-TAKEOVER EFFECT OF CHARTER AND BY-LAW PROVISIONS AND MICHIGAN LAW

The Company's Restated Articles of Incorporation authorize the Board of Directors to issue, without shareholder approval, 5,000,000 shares of Preferred Stock with voting, conversion, and other rights and preferences that could materially and adversely affect the voting power or other rights of the holders of Common Stock. The issuance of Preferred Stock or of rights to purchase Preferred Stock could be used to discourage an unsolicited acquisition proposal. The Company's Bylaws contain procedural restrictions on director nominations by shareholders and the submission of other proposals for consideration at shareholder meetings. The possible issuance of Preferred Stock and the procedures required for director nominations and shareholder proposals could discourage a proxy contest, make more difficult the acquisition of a substantial block of Common Stock, or limit the price that investors might be willing to pay in the future for shares of Common Stock. In addition, certain provisions of Michigan law applicable to the Company could also delay or make more difficult a merger, tender offer, or proxy contest involving the Company. See "Description of Capital Stock."

IMMEDIATE AND SUBSTANTIAL DILUTION; ABSENCE OF DIVIDENDS

Purchasers of the Common Stock in this offering will experience immediate and substantial dilution in the net tangible book value of the Common Stock. Additional dilution is likely to occur upon the exercise of outstanding options granted by the Company. The Company has never paid cash dividends and does not anticipate paying any cash dividends in the foreseeable future. See "Dilution" and "Dividend Policy."

THE COMPANY

Aastrom was incorporated in Michigan in March 1989 under the name Ann Arbor Stromal, Inc. In 1991, the Company changed its name to Aastrom Biosciences, Inc. The Company's principal executive offices are located at 24 Frank Lloyd Wright Drive, P.O. Box 376, Ann Arbor, Michigan 48106 and its telephone number is (313) 930-5555. Aastrom(TM) and the Company's stylized logo are trademarks of the Company. Leukine and Neupogen are registered trademarks of Immunex Corporation and Amgen, Inc., respectively.

USE OF PROCEEDS

The net proceeds to the Company from the sale of the 3,250,000 shares of Common Stock offered hereby are estimated to be $26,302,500 ($30,382,875 if the Underwriters exercise their over-allotment option in full), at an assumed initial public offering price of $9.00 per share and after deducting underwriting discounts and commissions and estimated offering expenses payable by the Company.

The Company currently intends to use approximately $16,000,000 of the net proceeds from the offering to fund product and clinical development activities for the Aastrom CPS, including pre-pivotal and pivotal clinical trials and approximately $7,000,000 for other research activities with the remaining amount being used for working capital and other general corporate purposes, including scheduled repayments of obligations under equipment leases. The Company has $339,000 of outstanding equipment lease commitments as of September 30, 1996 with final payments due between November 1996 and May 1999 and bear interest ranging from 9.7% to 12.1%.

Based on its current operating plan, the Company anticipates that the net proceeds of this offering, together with the Company's available cash and expected interest income thereon, should be sufficient to finance the Company's research and development and other working capital requirements until late 1998. This estimate is based on certain assumptions which could be negatively impacted by the matters discussed in "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations--Liquidity and Capital Resources." Pending such uses, the net proceeds will be invested in short-term, interest bearing investment grade securities.

DIVIDEND POLICY

The Company has never declared or paid any cash dividends on its Common Stock and does not anticipate paying such cash dividends in the foreseeable future. The Company currently anticipates that it will retain all future earnings, if any, for use in the development of its business.

CAPITALIZATION

The following table sets forth the capitalization of the Company (i) as of September 30, 1996, and (ii) on a pro forma as adjusted basis to reflect the conversion of all outstanding shares of Preferred Stock into Common Stock upon the closing of this offering and the receipt of the estimated net proceeds from the Company's sale of 3,250,000 shares of Common Stock pursuant to this offering. See "Use of Proceeds" and "Certain Transactions."

	SEPTEMBER 30, 1996	
	ACTUAL	PRO FORMA AS ADJUSTED
Long-term portion of capital lease obligations(1)....	$ 147,000	$ 147,000
Shareholders' equity(2):		
Preferred stock, no par value: 10,157,647 shares authorized, 9,657,648 shares issued and outstanding, actual; 5,000,000 shares authorized, no shares issued and outstanding, as adjusted.....	37,718,000	--
Common stock, no par value: 18,500,000 shares authorized, 1,887,312 shares issued and outstanding, actual; 40,000,000 shares authorized, 13,235,734 issued and outstanding, as adjusted, in each case net of shareholder notes receivable.....	198,000	64,218,500
Deficit accumulated during the development stage.....	(30,298,000)	(30,298,000)
Total shareholders' equity.....	7,618,000	33,920,500
Total capitalization.....	$ 7,765,000	$ 34,067,500

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(1) See Note 7 of Notes to Financial Statements.

(2) Excludes options and warrants to purchase 1,132,361 shares of Common Stock at a weighted average exercise price of $6.50 per share, assuming the closing of this offering at an initial public offering price of $9.00 per share. See "Management--Stock Option and Employee Benefit Plans" and Notes 4 and 9 of Notes to Financial Statements.

DILUTION

The Company's pro forma net tangible book value at September 30, 1996 was approximately $7,618,000 or $.76 per share. Pro forma net tangible book value per share represents the amount of the Company's shareholders' equity, less intangible assets, divided by 9,985,734, the number of shares of Common Stock outstanding as of September 30, 1996, after giving effect to the automatic conversion of all Preferred Stock into Common Stock upon the closing of this offering.

After giving effect to the sale of 3,250,000 shares of Common Stock in this offering at an assumed initial public offering price of $9.00 per share and after deducting underwriting discounts and commissions and estimated offering expenses payable by the Company, the pro forma net tangible book value of the Company as of September 30, 1996 would have been $33,920,500, or $2.56 per share. This represents an immediate increase in pro forma net tangible book value of $1.80 per share to existing shareholders and an immediate dilution in pro forma net tangible book value of $6.44 per share to purchasers of Common Stock in this offering, as illustrated in the following table:

Assumed initial public offering price per share		$9.00
Pro forma net tangible book value per share as of September 30, 1996	$ .76	
Increase per share attributable to new investors	1.80	
Pro forma net tangible book value per share after this offering		2.56
Dilution per share to new investors		$6.44

Utilizing the foregoing assumptions, the following table summarizes the total consideration paid to the Company and the average price per share paid by the existing shareholders and by purchasers of shares of Common Stock in this offering:

	SHARES PURCHASED		TOTAL CONSIDERATION		AVERAGE PRICE
	NUMBER	PERCENTAGE	AMOUNT	PERCENTAGE	PER SHARE
Existing shareholders	9,985,734	75%	$38,083,000	57%	$3.81
New investors	3,250,000	25%	29,250,000	43%	9.00
Total	13,235,734	100%	$67,333,000	100%	

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The foregoing excludes options and warrants to purchase 1,132,361 shares of Common Stock at a weighted average exercise price of $6.50 per share, assuming the closing of this offering at an initial public offering price of $9.00 per share. In the event such options and warrants are exercised, investors may experience further dilution. See "Management--Stock Option and Employee Benefit Plans" and Notes 4 and 9 of Notes to Financial Statements.

SELECTED FINANCIAL DATA

The statement of operations data for the fiscal years ended June 30, 1994, 1995 and 1996, for the period from Inception to June 30, 1996 and the balance sheet data at June 30, 1995 and 1996, are derived from, and are qualified by reference to, the audited financial statements included elsewhere in the Prospectus and should be read in conjunction with those financial statements and notes thereto. The statement of operations data for the fiscal years ended June 30, 1992 and 1993, and the balance sheet data at June 30, 1992, 1993 and 1994, are derived from audited financial statements not included herein. The information presented below for the three-month periods ended September 30, 1995 and 1996, for the period from Inception to September 30, 1996 and as of September 30, 1996, have been derived from the unaudited financial statements of the Company. In the opinion of the Company's management, the unaudited financial statements have been prepared by the Company on a basis consistent with the Company's audited financial statements and include all adjustments, consisting of only normal recurring accruals, necessary for a fair presentation of the financial position and the results of operations for those periods. Operating results for the three-month period ended September 30, 1996 are not necessarily indicative of the results that will be achieved for the entire year ended June 30, 1997. The data set forth below are qualified by reference to, and should be read in conjunction with, the financial statements and notes thereto, and Management's Discussion and Analysis of Financial Condition and Results of Operations.

	YEAR ENDED JUNE 30,					INCEPTION TO JUNE 30,
	1992	1993	1994	1995	1996	1996
STATEMENT OF OPERATIONS DATA:						
Revenues:						
Research and development agreements....	$ --	$ --	$ 49,000	$ 396,000	$ 1,342,000	$ 1,787,000
Grants.....	--	784,000	823,000	121,000	267,000	1,995,000
Total revenues.	--	784,000	872,000	517,000	1,609,000	3,782,000
Costs and expenses:						
Research and development...	1,090,000	2,600,000	5,627,000	4,889,000	10,075,000	25,075,000
General and administrative.	272,000	1,153,000	1,565,000	1,558,000	2,067,000	7,089,000
Total costs and expenses..	1,362,000	3,753,000	7,192,000	6,447,000	12,142,000	32,164,000
Loss before other income and expense....	(1,362,000)	(2,969,000)	(6,320,000)	(5,930,000)	(10,533,000)	(28,382,000)
Other income (expense):						
Interest income.....	94,000	148,000	245,000	279,000	678,000	1,576,000
Interest expense.....	--	(26,000)	(65,000)	(66,000)	(62,000)	(219,000)
Net loss.....	$(1,268,000)	$(2,847,000)	$(6,140,000)	$(5,717,000)	$ (9,917,000)	$(27,025,000)
Pro forma net loss per share(1).....	$ (.32)	$ (.49)	$ (.82)	$ (.66)	$ (.98)	
Pro forma weighted average number of shares outstanding(1).	3,919,000	5,840,000	7,461,000	8,644,000	10,103,000	

	THREE MONTHS ENDED SEPTEMBER 30,		INCEPTION TO SEPTEMBER 30,
	1995	1996	1996
STATEMENT OF OPERATIONS DATA:			
Revenues:			
Research and development agreements....	$ 172,000	$ 195,000	$ 1,982,000
Grants.....	39,000	29,000	2,024,000
Total revenues.	211,000	224,000	4,006,000
Costs and expenses:			
Research and development...	1,195,000	3,160,000	28,235,000
General and administrative.	446,000	452,000	7,541,000
Total costs and expenses..	1,641,000	3,612,000	35,776,000

Loss before other income and expense....	(1,430,000)	(3,388,000)	(31,770,000)
Other income (expense):			
Interest income.....	149,000	126,000	1,702,000
Interest expense.....	(18,000)	(11,000)	(230,000)
Net loss.....	$(1,299,000)	$(3,273,000)	$(30,298,000)
Pro forma net loss per share(1).....	$ (.13)	$ (.32)	
Pro forma weighted average number of shares outstanding(1).	10,094,000	10,107,000	

	JUNE 30,					SEPTEMBER 30,
	1992	1993	1994	1995	1996	1996
BALANCE SHEET DATA:						
Cash, cash equivalents and short-term investments.....	$5,640,000	$3,085,000	$ 6,730,000	$11,068,000	$10,967,000	$ 7,108,000
Working capital.....	5,399,000	2,744,000	6,187,000	10,319,000	9,851,000	6,540,000
Total assets.....	6,414,000	4,156,000	8,227,000	12,551,000	12,673,000	8,931,000
Long-term capital lease obligations.....	--	311,000	425,000	412,000	189,000	147,000
Deficit accumulated during the development stage.....	(2,404,000)	(5,251,000)	(11,391,000)	(17,108,000)	(27,025,000)	(30,298,000)
Total shareholders' equity.....	6,104,000	3,268,000	6,985,000	11,186,000	10,850,000	7,618,000

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(1) See Note 1 of Notes to Financial Statements for information concerning the computation of pro forma net loss per share and shares used in computing pro forma net loss per share.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

OVERVIEW

Since inception, the Company has been in the development stage and engaged in research and product development, conducted both on its own behalf and in connection with various collaborative research and development agreements with other entities. The Company expects that its revenue sources for at least the next several years will continue to be limited to grant revenues and research funding, milestone payments and licensing fees from potential future corporate collaborators. The timing and amount of such future cash payments and revenues, if any, will be subject to significant fluctuations, based in part on the success of the Company's research activities, the timing of the achievement of certain milestones and the extent to which associated costs are reimbursed under grant or other arrangements. Substantially all of the Company's revenues from product sales, if any, will be subject to royalty payments ranging from 2% to 5%. Further, under the Company's Distribution Agreement with Cobe, Cobe will perform marketing and distribution activities and in exchange will receive from 38% to 42% of the Company's product sales in the area of stem cell therapy, subject to negotiated discounts and volume-based adjustments. Research and development expenses may fluctuate due to the timing of expenditures for the varying stages of the Company's research and clinical development programs. Research and development expenses will increase as product development programs and applications of the Company's products progress through research and development stages. Under the Company's License Agreement with Immunex, annual renewal fees of $1,000,000 are payable in each of the next four years. Under the Company's Distribution Agreement with Cobe, regulatory approval activities for the Company's products for stem cell therapies outside of the United States will be conducted, and paid for, by Cobe. As a result of these factors, the Company's results of operations have fluctuated and are expected to continue to fluctuate significantly from year to year and from quarter to quarter and therefore may not be comparable to or indicative of the results of operations for other periods.

Over the past several years, the Company's net loss has primarily increased, consistent with the growth in the Company's scope and size of operations. In the near term, the Company plans additional moderate growth in employee headcount necessary to address increasing requirements in the areas of product development, research, clinical and regulatory affairs and administration. Assuming capital is available to finance such growth, the Company's operating expenses will continue to increase as a result. At least until such time as the Company enters into arrangements providing research and development funding, the net loss will continue to increase as well. The Company has been unprofitable since its inception and does not anticipate having net income for several years. Through September 30, 1996, the Company had an accumulated deficit of $30,298,000. There can be no assurance that the Company will be able to achieve profitability on a sustained basis, if at all.

This Prospectus contains, in addition to historical information, forward-looking statements that involve risks and uncertainties. The Company's actual results could differ materially from the results discussed in the forward-looking statements. Factors that could cause or contribute to such differences include those discussed under this caption, as well as those discussed under the caption "Risk Factors" and elsewhere in this Prospectus.

RESULTS OF OPERATIONS

THREE MONTHS ENDED SEPTEMBER 30, 1996 AND 1995

Total revenues were $224,000 for the three months ended September 30, 1996 compared to $211,000 for the same period in 1995. These revenues consist primarily of research and development revenue under the Company's research collaboration with RPR, which was terminated in September 1996. See "Certain Transactions."

Total costs and expenses were $3,612,000 for the three months ended September 30, 1996 compared to $1,641,000 for the same period in 1995. The increase in costs and expenses in 1996 is primarily the result of an increase in research and development expenses to $3,160,000 in 1996 from $1,195,000 in 1995 and to a lesser extent by general and administrative expenses, which increased to $452,000 for the three months ended September 30, 1996 from $446,000 for the same period in 1995.

Interest income was $126,000 for the three months ended September 30, 1996 compared to $149,000 for the same period in 1995 and reflects a decrease in the levels of cash, cash equivalents and short-term investments in 1996.

The Company's net loss increased to $3,273,000 for the three months ended September 30, 1996 from $1,299,000 for the same period in 1995, primarily as a result of increased costs and expenses in 1996.

YEARS ENDED JUNE 30, 1996, 1995 AND 1994

Total revenues were $1,609,000 in 1996, $517,000 in 1995, and $872,000 in 1994. Grant revenues increased to $267,000 in 1996 from $121,000 in 1995, which had decreased from $823,000 in 1994, reflecting the timing of grant awards and related research activities, to the extent that such associated costs are reimbursed under the grants. Grant revenues accounted for 17%, 23% and 94% of total revenues for the years ended June 30, 1996, 1995 and 1994, respectively. Revenues from research and development agreements totaled $1,342,000 in 1996, $396,000 in 1995 and $49,000 in 1994, reflecting research funding received by the Company under its collaboration with RPR which commenced in September 1995. Revenues from RPR accounted for 83% and 48% of such revenue in 1996 and 1995, respectively. In September 1996, the Company's research collaboration with RPR terminated.

Total costs and expenses were $12,142,000 in 1996, $6,447,000 in 1995, and $7,192,000 in 1994. The increase in 1996 costs and expenses, compared with 1995, is primarily the result of an increase in research and development expense to $10,075,000 in 1996 from $4,889,000 in 1995. The increase in research and development expense reflects an increase in research, clinical development and product development activities. The decrease in costs and expenses in 1995, compared with 1994, is primarily the result of a decrease in research and development expense to $4,889,000 in 1995 from $5,627,000 in 1994. General and administrative expenses were $2,067,000 in 1996, $1,558,000 in 1995 and $1,565,000 in 1994. The increase in general and administrative expenses in 1996 is the result of increasing finance, legal and other administrative and marketing expenses which are expected to continue to increase in support of the Company's increasing product development and research activities. The decrease in general and administrative expense in 1995 is reflective of generally lower spending in 1995 as compared to 1994.

Interest income was $678,000 in 1996, $279,000 in 1995, and $245,000 in 1994. The increases in interest income in 1996 and 1995 are due primarily to corresponding increases in the levels of cash, cash equivalents and short-term investments for such periods. Interest expense was $62,000 in 1996, $66,000 in 1995, and $65,000 in 1994, reflecting varying amounts outstanding under capital leases during the periods.

The Company's net loss was $9,917,000 in 1996, $5,717,000 in 1995, and $6,140,000 in 1994. The Company expects to report substantial net losses for at least the next several years.

The Company has not generated any net income to date and therefore has not paid any federal income taxes since inception. At June 30, 1996, the Company had deferred tax assets totaling $9,650,000 consisting primarily of net operating loss and research tax credits that begin to expire from 2004 through 2011, if not utilized. A full valuation allowance for deferred tax assets has been provided. Utilization of federal income tax carryforwards is subject to certain limitations under Section 382 of the Internal Revenue Code of 1986, as amended. The completion of this offering is likely to limit the Company's ability to utilize federal income tax carryforwards under Section 382. The annual limitation could result in expiration of net operating losses and research and development credits before their complete utilization.

LIQUIDITY AND CAPITAL RESOURCES

The Company has financed its operations since inception primarily through private placements of Preferred Stock and other equity investments, which from inception, have totaled approximately $37,916,000, and to a lesser degree, through grant funding, payments received under research agreements and collaborations, interest

earned on cash, cash equivalents, and short-term investments, and funding under equipment leasing agreements. These financing sources have historically allowed the Company to maintain adequate levels of cash and other liquid investments.

The Company's combined cash, cash equivalents and short-term investments totaled $10,967,000 at June 30, 1996, a decrease of $101,000 from June 30, 1995. The primary uses of cash, cash equivalents and short-term investments during the year ended June 30, 1996 included $8,967,000 to finance the Company's operations and working capital requirements, $445,000 in capital equipment additions and $270,000 in scheduled debt payments. During the year ended June 30, 1996, the Company received $3,500,000 in equity payments from RPR and $5,965,000 in net proceeds from the sale of Series E Convertible Preferred Stock. The Company plans to continue its policy of investing excess funds in short-term, investment-grade, interest-bearing instruments.

The Company's combined cash, cash equivalents and short-term investments totaled $7,108,000 as of September 30, 1996 compared to $10,967,000 at June 30, 1996. The decrease was primarily attributable to the use of $3,614,000 to fund operations and working capital requirements during the period and to a lesser degree by $173,000 in capital equipment purchases and $73,000 in scheduled debt payments.

In October 1996, the Company executed a financing commitment to provide the Company with up to $5,000,000 in additional equity funding from Cobe and $5,000,000 under a convertible loan agreement with another current investor. In connection with the convertible loan agreement, the Company has issued warrants to purchase 69,444 shares of Common Stock for securing the commitment. The warrants expire on October 15, 2000 if not exercised, and may be exercised, in whole or in part, at a price equal to the lesser of (a) $9.00 per share, which price increases by $3.00 per share on each anniversary of the closing of the offering being made hereby; or (b) 85% of the fair market value of the Company's Common Stock at the time of exercise. As of the date of this Prospectus, the Company has not obtained any financing under these commitments. These funding commitments expire upon the closing of this offering. On December 10, 1996, the Company issued to Cobe a notice to sell to Cobe 500,000 shares of Series F Preferred Stock for an aggregate purchase price of $3,000,000. Such sale is scheduled to close on March 19, 1997. In the event that this offering closes prior to March 19, 1997, Cobe's obligation to purchase Series F Preferred Stock under the equity commitment will terminate. In the event that this offering closes after March 19, 1997, Cobe's participation in this offering will be reduced by $3,000,000, the amount of its purchase of Series F Preferred Stock pursuant to the equity commitment.

The Company's future cash requirements will depend on many factors, including continued scientific progress in its research and development programs, the scope and results of clinical trials, the time and costs involved in obtaining regulatory approvals, the costs involved in filing, prosecuting and enforcing patents, competing technological and market developments and the cost of product commercialization. The Company does not expect to generate a positive cash flow from operations for several years, if at all, due to the expected increase in spending for research and development programs and the expected cost of commercializing its product candidates. The Company may seek additional funding through research and development agreements with suitable corporate collaborators and through public or private financing transactions. The Company anticipates that the net proceeds of this offering, together with the Company's available cash and expected interest income thereon, will be sufficient to finance its research and development and other working capital requirements until late 1998. This estimate is based on certain assumptions which could be negatively impacted by the matters discussed under this heading and elsewhere under the caption "Risk Factors." The Company expects that its primary sources of capital for the foreseeable future will be through collaborative arrangements and through the public or private sale of its equity securities. There can be no assurance that such collaboration arrangements, or any public or private financing transaction, will be available on acceptable terms, if at all, or can be sustained on a long-term basis. If adequate funds are not available, the Company may be required to delay, reduce the scope of, or eliminate one or more of its research and development programs, which may have a material adverse effect on the Company's business. See "Risk Factors--Future Capital Needs; Uncertainty of Additional Funding" and Notes to Financial Statements.

RECENT PRONOUNCEMENTS

During October 1995, the Financial Accounting Standards Board issued Statement No. 123, "Accounting for Stock-Based Compensation," which establishes a fair value based method of accounting for stock-based compensation and incentive plans and requires additional disclosures for those companies that elect not to adopt the new method of accounting. Adoption of the new accounting pronouncement is required for the Company's fiscal year beginning July 1, 1996 and the Company intends to provide the additional disclosures required by the pronouncement in its financial statements for the year ended June 30, 1997.

During March 1995, the Financial Accounting Standards Board issued Statement No. 121, ("SFAS 121") "Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of," which requires the Company to review for impairment of long-lived assets, certain identifiable intangibles, and goodwill related to those assets whenever events or changes in circumstances indicate that the carrying amount of an asset might not be recoverable. In certain situations, an impairment loss would be recognized. SFAS 121 will become effective for the Company's fiscal year beginning July 1, 1996. Management has studied the effect of implementing SFAS 121 and, based upon its evaluation, has determined that the impact on the Company's financial condition and results of operations is not significant for the period ended September 30, 1996.

OVERVIEW

Aastrom is developing proprietary process technologies and devices for a range of cell therapy applications, including stem cell therapies and gene therapy. The Company's lead product under development, the Aastrom Cell Production System (the "Aastrom CPS"), consists of a clinical cell culture system with disposable cassettes and reagents for use in the rapidly growing stem cell therapy market. The Company believes that the Aastrom CPS method will be less costly, less invasive and less time consuming than currently available stem cell collection methods. The Aastrom CPS is designed as a platform product which implements the Company's pioneering stem cell replication technology. The Company also believes that the Aastrom CPS can be modified to produce a wide variety of other cell types for new, emerging therapies being developed by others. Prior to commencement of multiple-site pivotal trials, the Company is conducting a limited "pre-pivotal" trial of the Aastrom CPS under an Investigational Device Exemption for use in stem cell therapy. The Company has entered into a strategic collaboration for the development of the Aastrom CPS in stem cell therapy with Cobe BCT, Inc., a subsidiary of Gambro AB and a leading provider of blood cell processing products. Additionally, Aastrom is developing products and processes for the delivery of ex vivo gene therapy that are designed to address the production of gene-modified cells.

CELL THERAPY

Cell therapy is the use of human cells to treat a medical disorder. The most common types of cell therapy, blood and platelet transfusions, have been widely used for many decades. More recently, bone marrow-derived cells have been used to restore the bone marrow and the blood and immune system cells which are damaged by chemotherapy and radiation therapy during the treatment of many cancers. Transplantation of these cells is known as stem cell therapy. Other cell therapies have recently been used for generating skin and cartilage tissue and additional cell therapies are being developed by various companies and researchers to restore immune system cells as well as bone, kidney, liver, vascular and neuronal tissues.

Cell therapies require the collection of cells, either from the patient or a suitably matched donor. These cells are typically processed and stored for administration to the patient. Although cell therapy is being developed for use in an increasing number of diseases, widespread application of new cell therapies remains limited by the difficulties and expense associated with current cell collection and processing procedures. The problems of current cell collection techniques are exemplified in the area of stem cell therapy where the patient or donor undergoes invasive, time-consuming and costly procedures to collect the large volume of cells currently required for effective treatment. The Company believes an alternative to collecting the required therapeutic dose of cells is to grow these cells ex vivo from a small starting volume. However, ex vivo cell expansion, when biologically possible, has typically required costly techniques, facilities and operations to comply with FDA good manufacturing practices ("GMP"), which are not generally available in hospitals. As a result, cells needed for such therapies often require specialized cell production facilities which use labor-intensive, manual cell culture techniques.

There are numerous forms of cell therapy at an early stage of development. One such example is ex vivo gene therapy, in which 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. The Company 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 GMP conditions.

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 cells of the blood and immune systems. The objective of stem cell therapy is to restore the hematopoietic system via the infusion and subsequent engraftment of healthy cells to replace bone marrow and result in the rapid recovery of neutrophils and platelets that have been destroyed by chemotherapy and radiation therapy. Stem cell therapy

reduces the risk of life-threatening infections and bleeding episodes following cancer treatments. In order to treat many cancers, high intensity chemotherapy or radiation is often required, which may severely destroy ("myeloablation") or partially destroy ("myelosuppression") 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 systems, 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. These cells are currently collected from the donor or patient directly through multiple syringe aspirations under 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 progenitor cell ("PBPC") collection. See "--Current Stem Cell Collection Methods." Recently, it has been demonstrated that the blood cells found in the umbilical cord of newborn infants include cells effective for stem cell therapy. This source of cells is being explored by physicians as a major new direction in stem cell therapy, but is currently limited by difficulties in obtaining sufficient quantities of these cells.

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 a new marrow. 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 take years following myeloablative cancer therapy. When the patient's hematopoietic system is malignant, such as in the case of leukemia, 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

The benefits of stem cell therapy in the treatment of cancer patients have been well established over the past two decades. Stem cell therapy, in the form of bone marrow transplantation, was originally used in patients who had received treatment for blood and bone marrow cancers such as leukemia, and genetic diseases of the blood. However, because stem cell therapy has been shown to promote the rapid recovery of hematopoietic function, it is now being increasingly used to enable patients with other forms of cancer to receive high dose or multicycle chemotherapy and radiation treatments. These high-intensity therapies have a greater probability of eradicating 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 used.

According to an industry source, approximately 32,000 stem cell therapy procedures were completed worldwide in 1995, and, according to another industry source, the number of such procedures utilizing donor-derived and patient-derived cells has been growing annually by approximately 15% and 20%, respectively. This growth has been driven by encouraging clinical results in the treatment of dose-sensitive solid tumors, such as breast and ovarian cancers. The Company expects that stem cell therapy procedures will continue to grow due to increased incidence and prevalence of cancer, continued clinical demand for myelotoxic cancer treatment, and the increased cost effectiveness of stem cell therapy treatments.

Stem cell therapy may also enhance the effectiveness of blood cell growth factors. 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 regrowth of residual tumor cells. Many cancer patients are routinely treated with growth factors including G-CSF, such as Neupogen and GM-CSF, such as Leukine, 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 PBPC collection method.

Bone Marrow Harvest

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

PBPC Mobilization and Collection

PBPC mobilization is a newer 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 PBPC 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, which draws and returns large volumes of the patient's or donor's blood in order to selectively remove the therapeutic volume of stem and progenitor cells. Each collection procedure typically lasts for two to six hours and is typically repeated on two to eight consecutive days. 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 PBPC process has become the predominant procedure in autologous stem cell therapy.

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. The Company believes that current charges for bone marrow harvest, processing and infusion are approximately $10,000 to $15,000 per procedure, with considerable variability between institutions. The Company believes that current charges for PBPC collection, including mobilization and infusion, are approximately $12,000 to $20,000 for a two to three cycle procedure, with considerable variability between institutions depending on the mobilization regimen and the total volume, time and number of aphereses required.

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, PBPC procedures have gained popularity compared with bone marrow harvests because the number of platelet transfusions is reduced for some patients.

Recently, products to implement a cell isolation method known as CD34 selection have been developed by other companies in conjunction with bone marrow harvest and PBPC 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. CD34 selection is used after the initial collection of stem and progenitor cells and, therefore, does not address the difficulties or costs associated with the basic cell collection procedures. To date, the CD34 selection procedure has demonstrated limited therapeutic benefit to the patient, but substantially increases the costs of the procedure. A future objective of CD34 selection is to assist in depleting tumor cells from the transplant cells collected, thereby expanding the availability of stem cell therapy to new patient populations.

UMBILICAL CORD BLOOD

Umbilical cord blood ("UCB"), which is collected directly from the umbilical cord after delivery, without pain or risk to the infant or the mother, is emerging as a new source of cells for stem cell therapy. UCB has been reported to have stem cell concentrations that are much higher than that typically obtained from traditional bone marrow and PBPC collection methods. After collection, UCB is typically frozen for later use in a stem cell therapy procedure. Storage of UCB samples involves small volumes of cells, compared to typical bone marrow or PBPC storage. Accordingly, the costs of collection and storage of UCB cells are comparatively low. This source of cells is also "tumor-free," such that UCB would be preferred for many current stem cell therapy procedures in metastatic cancer patients. Before UCB can become a major supply source for stem cell therapy, a coordinated UCB banking system must emerge. In this regard, several organized UCB banking institutions have been established to date, and the group is growing in both number and size.

One current disadvantage of UCB is the relatively low number of available cells. Unlike bone marrow or PBPC harvest, where the collection of more cells to meet a particular treatment is typically achievable, the number of cells available from a UCB donor is limited. This problem is exacerbated by the required cryopreservation of the cells, which causes significant cell loss. The resultant low cell number is believed to be responsible for the longer hematopoietic recovery times observed with UCB transplants, as compared with bone marrow or PBPC transplants. Further, because of the low cell number, UCB transplants are typically restricted to small patients. Therefore, increasing the number of therapeutic cells from a UCB sample would facilitate the more widespread use of UCB transplants. Aastrom believes that providing the transplant site with the capability to carry out the UCB cell expansion will be a major factor in the increased use of UCB for stem cell therapy and a significant business opportunity.

AASTROM TECHNOLOGY

Aastrom is developing proprietary process technologies that are pioneering the ex vivo production of human stem and progenitor cells. The Company has also developed a proprietary cell culture device that mimics the biological and physical environment necessary for the growth of certain human cells and tissues, including bone marrow. The Company's initial product candidate, the Aastrom CPS, utilizes the Company's process technology and is designed to enable the ex vivo production of human stem and progenitor cells as an alternative to the bone marrow harvest and PBPC mobilization methods and as an enhancement to the UCB collection method. The Company believes that the Aastrom CPS may be used for other cell production processes which are being developed by third parties and, in combination with the Company's proprietary gene transfer process, may have application in the developing field of ex vivo gene therapy.

CORE TECHNOLOGY

Stem Cell Growth Process

Aastrom has developed proprietary process technologies for ex vivo production of therapeutic stem and progenitor cells as well as other key cells found in human bone marrow. The Company'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. Currently available cell culture methods tend to result in a loss of stem cells, either through death or through differentiation into mature cells. The Company has exclusive licenses to two U.S. patents and additional applications that cover these processes. See "--Additional Stem Cell and Other Cell Therapies."

Aastrom Cell Culture Chamber

Aastrom has developed a proprietary cell culture chamber to implement the Company's process technology. The culture chamber produces cells on a clinical scale, and allow for simple, sterile recovery of the cells for therapeutic use. The Company believes that the Aastrom cell culture chamber may also be used for growing other human therapeutic cells, such as T-Cells used for lymphocyte therapies, chondrocytes for cartilage replacement, and mesenchymal tissues for bone and cartilage replacement. The Company holds exclusive licenses to two U.S. patents and additional applications for its cell culture chamber device technology. See "--Additional Stem Cell and Other Cell Therapies."

Efficient Gene Transfer

Aastrom has developed proprietary processes and device technology that may enable increased efficiency of vector-mediated gene transfer into cells as compared to conventional procedures. This directed-motion gene transfer or gene loading technology is being pursued by the Company for application in most cell and tissue types and most vector technologies. The Company intends to develop products based upon its gene loading technology. If successfully developed into products, the Company believes that such products would facilitate the advancement of numerous gene therapy protocols into the clinic and ultimately the market. The Company is the exclusive licensee of a U.S. Patent, and has additional applications pending, for this technology. See "Aastrom Product Candidates For Ex Vivo Gene Therapy."

THE AASTROM CPS

The Aastrom CPS is the Company's lead product under development for multiple cell therapy applications, including stem cell therapy. The Aastrom CPS is a proprietary system that the Company believes will enable the large scale ex vivo production of a variety of therapeutic cells at health care 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 Aastrom CPS is comprised of several components, including single-use disposable cassettes and reagents and microprocessor-controlled instruments, which are at various stages of development. The Cell Cassette is a single-use disposable cartridge which contains the Aastrom cell culture chamber and the related media supply waste reservoirs and harvest bag. The microprocessor-controlled instruments include the Incubator which controls the culture conditions for the operation of the Cell Cassette, and the Processor which automates the priming and harvesting of the cells from the Cell Cassette. The System Manager is a user interface computer that is being developed to simultaneously track and monitor the cell production process in over thirty CPS Incubators and record relevant process variables and operator actions. Prototype components of the Aastrom CPS are currently being used in a clinical trial and ongoing development activities are directed at completing other production level components of the Aastrom CPS.

The Aastrom CPS 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 Aastrom process is a blood-bag container with the cell product. The control and documentation features of the Aastrom CPS have been designed to meet GMP requirements for the therapeutic production of cells.

AASTROM CPS FOR STEM CELL THERAPY

The Company's initial application for the Aastrom CPS is expected to be in the growing field of stem cell therapy, where the Company believes that the Aastrom CPS may address many of the limitations of existing procedures. The Aastrom CPS 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. This cell mixture is quantified, and an appropriate volume of cells is then inoculated into one or more Cell Cassettes with the necessary growth media. Growth-factor-stimulated cells are produced using the Aastrom CPS in approximately 12 to 13 days, with no further patient involvement. Depending upon the cell quantity necessary for a therapeutic application, single or multiple Cell Cassettes may be required, with a different volume requirement of starting cells taken from the patient at the initial visit. The Aastrom CPS has been designed to minimize operator involvement during the cell production process, and the steps required before and after the Aastrom CPS are standard laboratory procedures.

Potential Advantages of Aastrom CPS

The Company believes that the Aastrom CPS, if approved for commercial sale by the FDA and foreign regulatory agencies, may provide certain improvements and efficiencies over traditional cell collection and infusion processes. The following table, which sets forth the Company's estimates based on a 1996 survey conducted by the Company of 11 stem cell transplant physicians at different transplant institutions throughout the United States, compares estimated patient care episodes, procedure time and needle sticks for currently established cell collection and infusion techniques with the Aastrom CPS method of cell procurement:

CELL SOURCE	CARE EPISODES(1)	PROCEDURE TIME (HOURS)(1)	NEEDLE STICKS(2)
Bone Marrow Harvest(3).....	8	16	103
PBPC Mobilization and Collection(4).....	21	39	22
Aastrom CPS(5).....	2	1-3	4-10

(1) Includes all outpatient, inpatient, and home care episodes.
(2) Includes bone marrow aspirates, blood samples, catheter placements and other venous access, and subcutaneous injections.
(3) Includes operating room procedure and all preparatory and recovery procedures.
(4) Based on an average of three rounds of apheresis following cell mobilization injections.
(5) Projections, based on data accumulated during the Company's pre-clinical research and clinical trials.

Reduced Cost. The Company believes the Aastrom CPS has the potential to replace more costly, labor intensive and invasive cell collection and infusion procedures currently employed for stem cell therapy and to reduce physician, staff and patient time requirements.

Reduced Patient and Physician Burden. Cell production with the Aastrom CPS is expected to require the collection of a small volume of starting material compared to current collection procedures, eliminating the requirement for general surgical anesthesia, multiple drug injections and blood apheresis. Patient benefits are expected to include fewer needle sticks than with current cell collection and infusion methods and a reduction in overall patient procedure time. Additionally, Aastrom's process for cell expansion is expected to minimize the time requirement for physicians compared with bone marrow harvest.

Enhanced Multicycle High-Dose Chemotherapy. The long restoration period for the hematopoietic system following myeloablative therapy effectively limits patients to one opportunity for cell collection prior to cancer therapy. The Aastrom CPS may enhance the practice of multicycle, high-dose chemotherapy by providing the ability to produce a therapeutic dose of cells from a small starting volume. The initial cell collection can be divided into multiple samples and stored frozen until expansion at a later time is required.

Reduced Quantity of Lymphocytes. The Company believes its approach to stem cell therapy may provide an additional benefit over current methods by depleting potentially harmful cells such as T-cells and B-cells. These cells are believed to be primarily responsible for graft-versus-host disease, a common manifestation of allogeneic transplants in which the grafted donor's cells attack the host's tissues and organs.

Tumor Cell Purging. 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 transplant may reintroduce cancer cells into the patient. Additionally, patients may have undetected tumor cells in their marrow or PBPC transplant, which can reestablish the cancer in the patient following transplant. The Aastrom CPS process may offer benefits for these groups of patients. The Company and other investigators have shown that some primary human tumor cells die or do not grow during hematopoietic cell culture. Further, the smaller volume of starting cells used for the Aastrom CPS compared with bone marrow harvest or PBPC transplants may provide approximately 10 to 70 fold less tumor cells in a transplant. 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 benefit of such tumor depletion, if any, will vary depending upon the type of cancer and state of disease.

CLINICAL DEVELOPMENT

The Company's clinical development plan is initially to obtain regulatory approval in the United States to market the Aastrom CPS for autologous stem cell therapy and in Europe for more general cell therapy applications. The Company also intends to pursue approval of the Aastrom CPS for additional clinical indications.

The Company believes that the Aastrom CPS for stem cell therapy will be regulated as a medical device and that the Company will be required to submit a PMA application to, and obtain approval from, the FDA to allow it to market this product in the United States. In order to obtain PMA approval, the Company will be required to complete clinical trials under an IDE. See "--Government Regulation--Devices."

In a dose-ranging study conducted by the University of Michigan (the "University") in 1993, ex vivo produced cells utilizing the Company's proprietary cell production technology were infused into seven patients with non-Hodgkin's lymphoma after they received myeloablative chemotherapy. These patients also received cells obtained from either an autologous bone marrow harvest or PBPC procedure. No safety issues attributable to the infused cells were observed in this trial and the patients exhibited recovery profiles consistent with traditional transplantation techniques.

Aastrom completed the first feasibility trial of its cell production system technology under an IDE at the MD Anderson Cancer Center in October 1995. In this trial, ten breast cancer patients, who were subjected to myeloablative chemotherapy, were treated with cells obtained from a bone marrow harvest and with cells produced from a sample of such cells with a predecessor of the Aastrom CPS. The patients exhibited standard clinical recoveries, providing evidence of the clinical safety of cells obtained from the Company's cell production process and of the feasibility of cell production with a predecessor of the Aastrom CPS by clinical personnel at an investigational site.

Aastrom is currently conducting a pre-pivotal stem cell therapy clinical trial under an IDE submitted to the FDA. This clinical trial is designed to demonstrate that cells produced using the Aastrom CPS can provide hematopoietic recovery in accordance with trial endpoints in breast cancer patients who have received myeloablative chemotherapy. Bone marrow obtained from the patients by traditional methods will be available for precautionary reasons at defined clinical stages. The results from the five patients accrued at the first trial site have provided evidence of the clinical safety of the Aastrom CPS-produced cells in patients and that the hematopoietic recovery endpoints specified for the trial are achievable. The patients at this trial site were Stage IV breast cancer patients who had received significant prior cytotoxic therapies for their cancer. Four of these five patients received the precautionary back-up marrow pursuant to the trial protocol. Preliminary results from the first trial site were reviewed with the FDA, and the IDE was amended to expand the trial to a second site. The amended IDE provided for the enrollment of Stage II, III and IV patients, and a delayed use of the precautionary back-up bone marrow. As of the date of this Prospectus, patient accrual is ongoing and patient data from this site provides further evidence that the hematopoietic recovery endpoints specified for the trial are achievable.

The objective of the current and anticipated future trials is to establish the protocol for the pivotal trial of the Aastrom CPS in autologous stem cell therapy in breast cancer. Provided that these pre-pivotal trials provide further evidence of feasibility and safety of the cells produced in the Aastrom CPS, the Company anticipates initiating a pivotal clinical trial at multiple sites no earlier than mid-1997, with the patient enrollment typical to support a PMA filing, although this schedule is subject to numerous risks and uncertainties. See "Risk Factors--Uncertainties Related to Preclinical and Clinical Testing."

Aastrom, in partnership with Cobe, intends to initiate a clinical trial in Europe by mid-1997 to evaluate the use of Aastrom CPS cells to promote hematopoietic recovery in breast cancer patients undergoing aggressive myelosuppressive chemotherapy. The Company intends to seek approval to market the Aastrom CPS in Europe through CE Mark Registration. See "--Government Regulation--Regulatory Process in Europe."

The preliminary results of the Company's pre-pivotal trial may not be predictive of results that will be obtained from subsequent patients in the trial or from more extensive trials. Further, there can be no assurance that the Company's pre-pivotal or pivotal trial will be successful, or that PMA approval or required foreign regulatory approvals for the Aastrom CPS will be obtained in a timely fashion, or at all.

BUSINESS STRATEGY

Aastrom's objective is to build a leadership position in cell therapy process technology. The primary elements of the Company's business strategy are as follows:

Establish Consumable Based Business Model. Aastrom's strategy is to sell the Aastrom CPS to institutions, hospitals, and other clinical care or commercial cell production facilities that are administering cell therapy. The Company plans to obtain ongoing revenue from the sale of single-use disposable Cell Cassettes and related cell culture media and reagents, which are utilized in individual cell therapy applications. After cells are cultured in the Cell Cassette, the cassette is discarded and a new cassette is utilized for a subsequent patient. Along with ongoing revenue from the sale of instruments and disposables for cell therapy applications, the Company believes it will be able to obtain license revenue from its stem cell therapy applications for its proprietary stem cell processes.

Focus Initially on Established and Reimbursed Therapies. Aastrom will seek to establish the use of the Aastrom CPS in the field of stem cell therapy for the treatment of toxicity resulting from many cancer therapies, including those for breast cancer, lymphoma, ovarian cancer, germ cell cancers, leukemias and aplastic anemias. Stem cell therapy is a well-established and growing treatment modality in cancer therapy, and current cell collection procedures are widely reimbursed by third party payors.

Leverage Platform Technology Across Multiple Market Opportunities. In addition to stem cell therapy applications, the Company believes that the Aastrom CPS may serve as a platform product that can be used to produce a variety of other cells for multiple therapeutic applications, such as T-cells for use in lymphocyte therapies, chondrocytes for cartilage replacement, and mesenchymal cells for use in certain solid tissue therapies. The Company believes that if the Aastrom CPS is well established as a method for cell production for use in stem cell therapy, the system will be positioned for commercialization of new cell and ex vivo gene therapies that are under development.

Market Through Collaborative Relationships. The Company plans to reach end-user markets through collaborative relationships with companies that have established positions in those markets. In 1993, the Company formed a strategic partnership with Cobe, a leading provider of blood cell processing equipment and disposables. Cobe is the Company's exclusive, worldwide distributor of the Aastrom CPS for stem cell therapy applications, not including stem cell gene therapy. The Company will seek to establish additional collaborations for other cell therapies as those therapies and the Company's product lines develop. See "Business--Strategic Relationships."

ADDITIONAL STEM CELL AND OTHER CELL THERAPIES

The Company believes that the Aastrom CPS hardware and disposables may be developed to serve as platform products for application in a variety of other emerging cell therapies in addition to stem cell therapy. The Company believes that the Aastrom CPS has the potential to supplant current manual cell culture methods to produce therapeutic quantities of cell types such as T-cells, chondrocytes, mesenchymal cells, keratinocytes, neuronal cells and dendritic 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 Aastrom CPS in these therapies may include: (i) reducing labor and capital costs; (ii) enhancing process reliability; (iii) automating quality assurance; and (iv) reducing the need for specialized, environmentally controlled facilities.

Modification of such processes and application of the Company's products to the expansion of other cell types may require substantial additional development of specialized culture environments and which may need to be incorporated within the Company's existing cell cassettes. There can be no assurance that the Company will be able to successfully modify or develop existing or future products to enable such additional cell production processes. The Company'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 the Company's processes or product candidates will find successful application in such therapies. See "--Business Strategy" and "--Clinical Development," "Use of Proceeds," and "Risk Factors--Future Capital Needs; Uncertainty of Additional Funding."

Immunotherapies

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

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

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

Solid Tissue Cell Therapies

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

Other Stem Cell Therapies

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

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

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

A major limitation to the use of stem cell therapy in solid organ transplant is the limited availability of sufficient amounts of bone marrow to obtain a desired therapeutic response of immune tolerization. This limitation is particularly problematic when cadaveric donor organs are available, which has traditionally been the source of cells 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 procured 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. The Company believes that for ex vivo gene therapy to progress to clinical applications, a process to produce a sufficient quantity of therapeutic cells is required as is an efficient means to insert the gene vector into target cells. Gene therapy is still in an early stage of development by third parties. The Company's business opportunity is dependent upon the successful development and regulatory approval of individual gene therapy applications. No assurance can be given that such applications will be developed or approved or that the Company's processes or product candidates will find successful applications in such therapies. Successful development of the Company'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 the Company's ability to finance such activities on acceptable terms, if at all. See "Risk Factors--Future Capital Needs; Uncertainty of Additional Funding."

THE AASTROM CPS FOR GENE THERAPY (GT-CPS)

The Aastrom CPS has been designed to produce cells for therapy and the Company believes that the Aastrom CPS may be useful in many potential ex vivo gene therapy applications. Further, the Company

anticipates that its proprietary stem cell production process technology implemented by the Aastrom CPS may provide the conditions for clinical scale stem cell division, and enable or enhance the introduction of therapeutic genes into stem cell DNA. The Company 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.

The Company has two principal objectives for the development of Aastrom GT-CPS: (i) the enablement of stem cell gene therapies for a variety of hematologic and other disorders, based on the GT-CPS'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 GENE LOADER

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

The Company believes that these issues represent a general bottleneck for other companies pursuing ex vivo gene therapy clinical applications. The Company'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 extreme quantities of gene vectors and/or target "delivery" tissues.

STRATEGIC RELATIONSHIPS

On October 22, 1993, the Company entered into a Distribution Agreement (the "Distribution Agreement") with Cobe for Cobe to be the Company's exclusive, worldwide distributor of the Aastrom CPS for stem cell therapy applications (the "Stem Cell Therapy Applications"). Under the terms of the Company's Distribution Agreement with Cobe, other than with respect to sales to affiliates, the Company is precluded from selling the Aastrom CPS to customers for stem cell therapy applications. The Company has, however, reserved the right to sell the Aastrom CPS for: (i) all diagnostic or other non-therapeutic clinical applications; (ii) all gene therapy or gene transfer applications, including those for stem cells; (iii) all non-human applications; (iv) certain permitted clinical research applications; and (v) all applications that are labeled not for human use. The Company has also reserved the unconditional right to sell other products under development, including but not limited to products based upon its gene loading technology. The initial term of the Distribution Agreement expires on October 22, 2003, and Cobe has the option to extend the term for an additional ten-year period. The Company is responsible for the expenses to obtain FDA and other regulatory approval in the United States, while Cobe is responsible for the expenses to obtain regulatory approval in foreign countries to allow for worldwide marketing of the Aastrom CPS for Stem Cell Therapy Applications. See "Risk Factors--Consequences of Cobe Relationship."

Under the terms of the Distribution Agreement, the Company will realize approximately 60% and 58% of the net sales price at which Cobe ultimately sells the Aastrom CPS in the United States and Europe, respectively, for Stem Cell Therapy Applications, subject to certain negotiated discounts and volume-based adjustments and subject to the obligation of the Company to make royalty payments ranging from 2% to 5% to certain licensors of its technology. The Company is also entitled to a premium on United States sales in any year in which worldwide sales exceed specified levels.

The Distribution Agreement may be terminated by Cobe upon twelve months prior notice to the Company in the event that any person or entity other than Cobe beneficially owns more than 50% of the Company's outstanding Common Stock or voting securities. The Distribution Agreement may also be terminated by Cobe at any time after December 31, 1997 if Cobe determines that commercialization of the Aastrom CPS for stem cell therapy on or prior to December 31, 1998 is unlikely.

In conjunction with the Distribution Agreement, the Company also entered into a Stock Purchase Agreement with Cobe (the "Cobe Stock Agreement"), whereby Cobe acquired certain option, registration, preemptive and other rights pertaining to shares of the Company's stock. Pursuant to such preemptive rights, Cobe has elected to purchase $5,000,000 of Common Stock in this offering at the initial public offering price per share. See "Description of Capital Stock--Rights of Cobe" and "Certain Transactions."

MANUFACTURING

The Company has no current intention of internally manufacturing its product candidates and, accordingly, is developing relationships with third party manufacturers which are FDA registered as suppliers for the manufacture of medical products.

On May 10, 1994, the Company entered into a Collaborative Product Development Agreement with SeaMED Corporation, ("SeaMED"). Pursuant to this agreement, the Company and SeaMED will collaborate on the further design of certain instrument components in the Aastrom CPS, and enable SeaMED to manufacture pre-production units of the instrument components for laboratory and clinical evaluation. The Company is paying SeaMED for its design and pre-production work on a "time and materials" basis, utilizing SeaMED's customary hourly billing rates and actual costs for materials. Subject to certain conditions, the Company has committed to enter into a manufacturing agreement with SeaMED for commercial manufacture of the instrument components for three years after shipment by SeaMED of the first commercial unit pursuant to a pricing formula set forth in the agreement. The Company retains all proprietary rights to its intellectual property which is utilized by SeaMED pursuant to this agreement.

On November 8, 1994, the Company entered into a Collaborative Product Development Agreement with Ethox Corporation ("Ethox"). Pursuant to this agreement, the Company and Ethox will collaborate on the further design of certain bioreactor assembly and custom tubing kit components of the Aastrom CPS, and enable Ethox to manufacture pre-production units of such components for laboratory and clinical evaluation. The Company is paying Ethox for its design and production work on a "time and materials" basis, utilizing Ethox's customary hourly billing rates and actual costs for materials. The Company retains all proprietary rights to its intellectual property which are utilized by Ethox pursuant to this Agreement.

In April 1996, the Company entered into a five-year License and Supply Agreement with Immunex to purchase and resell certain cytokines and ancillary materials for use in conjunction with the Aastrom CPS. The agreement required the Company to pay Immunex an initial up-front fee of $1,500,000 to be followed by subsequent annual renewal payments equal to $1,000,000 per year during the term of the agreement in addition to payment for supplies purchased by the Company. Unless earlier terminated or renewed by the Company for an additional 5 year term, the agreement will expire in April 2001. The 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 the Company of cytokines and ancillary materials if the Company fails to purchase a minimum amount of its forecasted annual needs from Immunex after notice to the Company and expiration of a specified cure period. The Company also has the right to terminate the agreement at any time subject to the payment to Immunex of a specified amount for liquidated damages. In the event that Immunex elects to cease to supply to the Company cytokines and ancillary materials or is prevented from supplying such materials to the Company by reason of force majeure, limited manufacturing rights will be transferred to the Company under certain circumstances. There is, however, no assurance that the Company could successfully manufacture the compounds itself or identify others that could manufacture these compounds to acceptable quality standards and costs, if at all.

On December 16, 1996, the Company entered into a Collaborative Supply Agreement with Anchor Advanced Products, Inc., Mid-State Plastics Division ("MSP"). Under this agreement, MSP will conduct both pre-production manufacturing development and commercial manufacturing and assembly of the cell cassette component of the Aastrom CPS for the Company. During the initial phase of the seven-year agreement, the

Company will pay MSP for its development activities on a time and materials basis. Upon reaching certain commercial manufacturing volumes, MSP will be paid by the Company on a per unit basis for cell cassettes delivered to the Company under a pricing formula specified in the agreement. Throughout the term of this agreement, the Company 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 the Company will be able to continue its present arrangements with its suppliers, supplement existing relationships or establish new relationships or that the Company will be able to identify and obtain the ancillary materials that are necessary to develop its product candidates in the future. The Company's dependence upon third parties for the supply and manufacture of such items could adversely affect the Company's ability to develop and deliver commercially feasible products on a timely and competitive basis. See "Risk Factors--Manufacturing and Supply Uncertainties; Dependence on Third Parties."

PATENTS AND PROPRIETARY RIGHTS

The Company's success depends in part on its ability, and the ability of its licensors, to obtain patent protection for its products and processes. The Company and its licensors are seeking patent protection for technologies related to (i) human stem and progenitor cell production processes; (ii) bioreactors and systems for stem and progenitor cell production and production of other cells; and (iii) gene transfer devices and processes. The Company has exclusive license rights to five issued United States patents that 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; and (iii) certain methods of infecting or transfecting target cells with vectors. Patents equivalent to two of these United States patents have also been issued in other jurisdictions: one in Australia and another in Canada and under the European Patent Convention. These eight issued patents are due to expire beginning in 2006, through 2013. In addition, the Company and its exclusive licensors have filed applications for patents in the United States and equivalent applications in certain other countries claiming other aspects of the Company's products and processes, including five United States patent applications and corresponding applications in other countries related to various components of the Aastrom CPS. Of these pending patent applications, the Company has received notices of allowance for certain claims in a United States application relating to methods for obtaining ex vivo stem cell division, and claims in a European Patent Convention application and in a United States application relating to methods for efficient proliferation of hematopoietic cells in culture.

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 the Company or its licensors will be issued, that the scope of any patent protection will exclude competitors or provide competitive advantages to the Company, that any of the patents that have been or may be issued to the Company 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 the Company. Furthermore, there can be no assurance that others have not developed or will not develop similar products, duplicate any of the Company's products or design around any patents that have been or may be issued to the Company or its licensors. Since patent applications in the United States are maintained in secrecy until patents issue, the Company also cannot be certain that others did not first file applications for inventions covered by the Company's and its licensors' pending patent applications, nor can the Company be certain that it will not infringe any patents that may issue to others on such applications.

The Company relies on certain licenses granted by the University of Michigan and Dr. Cremonese for the majority of its patent rights. If the Company breaches such agreements or otherwise fails to comply with such agreements, or if such agreements expire or are otherwise terminated, the Company may lose its rights under the patents held by the University of Michigan and Dr. Cremonese, which would have a material adverse effect on the Company's business, financial condition and results of operations. See "--University of Michigan Research Agreement and License Agreement" and "--License Agreement with J.G. Cremonese."

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

The Company's success will also depend in part on its ability to develop commercially viable products without infringing the proprietary rights of others. The Company 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 the Company's ability to market its products or maintain its competitive position with respect to its products. If the Company'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, the Company may be subject to infringement actions. In such event, the Company 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 the Company 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 the Company'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 the Company's business, financial condition and results of operations. If the Company is required to defend itself against charges of patent infringement or to protect its own proprietary rights against third parties, substantial costs will be incurred regardless of whether the Company is successful. Such proceedings are typically protracted with no certainty of success. An adverse outcome could subject the Company to significant liabilities to third parties and force the Company to curtail or cease its development and sale of its products and processes.

Certain of the Company'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 United States 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 the Company 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 U.S. are to be manufactured substantially in the U.S., 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.

UNIVERSITY OF MICHIGAN RESEARCH AGREEMENT AND LICENSE AGREEMENT

In August 1989, the Company entered into a Research Agreement (the "Research Agreement") with the University, pursuant to which the Company funded a research project at the University under the direction of

Stephen G. Emerson, M.D., Ph.D., as the principal inventor, together with Michael F. Clarke, M.D., and Bernhard O. Palsson, Ph.D., as co-inventors. Pursuant to the Research Agreement, the Company was granted the right to acquire an exclusive, worldwide license to utilize all inventions, know-how and technology derived from the research project. By Extension Agreements, the Company and the University extended the scope and term of the Research Agreement through December 1994.

On March 13, 1992, the Company and the University entered into the License Agreement, as contemplated by the Research Agreement. There have been clarifying amendments to the License Agreement, dated March 13, 1992, October 8, 1993 and June 21, 1995. Pursuant to this License Agreement, (i) the Company 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's research project or which resulted from certain further research conducted through December 31, 1994, and (ii) the Company is obligated to pay to the University a royalty equal to 2% of the net sales of products which are covered by the University's patents. Unless it is terminated earlier at the Company's option or due to a material breach by the Company, the License Agreement will continue in effect until the latest expiration date of the patents to which the License Agreement applies.

LICENSE AGREEMENT WITH J. G. CREMONESE

In July 1992, the Company entered into a License Agreement with Joseph G. Cremonese pursuant to which the Company obtained exclusive worldwide license rights for all fields of use, to utilize U.S. Patent No. 4,839,292, entitled "Cell Culture Flask Utilizing a Membrane Barrier," which patent was issued to Dr. Cremonese on June 13, 1989, and to utilize any other related patents that might be issued to Dr. Cremonese. Pursuant to the License Agreement, the Company has reimbursed Dr. Cremonese for $25,000 of his patent costs. Under the terms of the License Agreement, the Company is to pay to Dr. Cremonese a royalty of 3% of net sales of the products which are covered by said patent, subject to specified minimum royalty payments ranging from $20,000 to $50,000 per year, commencing in calendar year 1997. Unless earlier terminated, the License Agreement will continue in effect until the latest expiration date of the patents to which the License Agreement applies, which latest expiration date is currently August 2009. The License Agreement may be terminated by either party upon default by the other party of any of its obligations under the agreement without cure after expiration of a 30-day notice period. The Company also has the right to terminate the License Agreement at any time without cause upon 30 days prior written notice to Dr. Cremonese.

GOVERNMENT REGULATION

The Company's research and development activities and the manufacturing and marketing of the Company'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 U.S., in addition to meeting FDA regulations, the Company 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 the Company's knowledge, it is the first to develop a 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 the Company's products is uncertain.

The Company's products are potentially subject to regulation as medical devices under the Federal Food, Drug, and Cosmetic Act, and as biological products under the Public Health Service Act, or both. Different regulatory requirements may apply to the Company'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 Aastrom CPS product for

stem cell therapy 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 Aastrom CPS as a medical device.

Further, it is unclear whether the FDA will separately regulate the cell therapies derived from the Aastrom CPS. The FDA is still in the process of developing its requirements with respect to somatic cell therapy and gene cell therapy products and has recently issued a draft document concerning the regulation of umbilical cord blood stem cell 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. The FDA also recently proposed a new type of license, called a biologic license application ("BLA"), for autologous cells manipulated ex vivo and intended for structural repair or reconstruction. This proposal may indicate that the FDA will extend a similar approval requirement to other types of autologous cellular therapies, such as autologous cells for stem cell therapy. Any such additional regulatory or approval requirements could significantly delay the introduction of the Company's product candidates to the market, and have a material adverse impact on the Company.

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 the Company's product candidates will ultimately receive regulatory approval.

Regardless of how the Company'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 the Company 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 clinical and preclinical 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 the Company may encounter significant difficulties or costs in its efforts to obtain FDA approvals which could delay or preclude the Company from marketing any products it may develop. The FDA may also require postmarketing testing and surveillance of approved products, or place other conditions on the approvals. These requirements could cause it to be more difficult or expensive to sell the products, and could therefore restrict the commercial applications of such products. Product approvals may be withdrawn if compliance with regulatory standards is not maintained or if problems occur following initial marketing. For patented technologies, delays imposed by the governmental approval process may materially reduce the period during which the Company 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 application with the FDA prior to commencing human clinical trials. The IDE application must be supported by data, typically including the results of pre-clinical and laboratory testing. If the IDE application is approved, 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 recordkeeping regulations, GMPs, 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 postmarket surveillance. Class III devices, which are either invasive or life-sustaining products, or new products never before

marketed (for example, non-"substantially equivalent" devices), require clinical testing to demonstrate safety and effectiveness and FDA approval prior to marketing and distribution. The FDA also has the authority to require clinical testing of Class I and Class II devices.

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

Some of the Company's products may be classified as Class II or Class III medical devices. The Company has submitted several IDEs for the Aastrom CPS, and is currently conducting a pre-pivotal clinical study under one of these IDEs. The Company believes that the Aastrom CPS 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.

The Company 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 GMP regulations. These regulations will require that the Company and any contract manufacturer manufacture products and maintain documents in a prescribed manner with respect to manufacturing, testing, distribution, storage, design control and service activities, and that adequate design and service controls are implemented. The Medical Device Reporting regulation requires that the Company 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 the Company'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 safety and efficacy of the product for its intended use, (iv) submission to the FDA of a product license application ("PLA") and establishment license application ("ELA") and (v) review and approval of the PLA and ELA 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 the Company 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 the Company 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 PLA for marketing approval. The testing and approval process is likely to require substantial time and effort and there can be no assurance that any approval will be granted on a timely basis, if at all. Additional animal studies or clinical trials may be requested during the FDA review period that may delay marketing approval. After FDA approval for the initial indications, further clinical trials may be necessary to gain approval for the use of the product for additional indications. The FDA requires that adverse effects be reported to the FDA and may also require post-marketing testing to monitor for adverse effects, which can involve significant expense.

Under current requirements, facilities manufacturing biological products must be licensed. To accomplish this, an ELA must be filed with the FDA. The ELA 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 and the ability to consistently manufacture the product in the facility in accordance with the PLA. If the FDA finds the inspection unsatisfactory, it may decline to approve the ELA, resulting in a delay in production of products. Although reviewed separately, approval of both the PLA and ELA must be received prior to commercial marketing of a cellular biologic.

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

REGULATORY PROCESS IN EUROPE

The Company believes that the Aastrom CPS will be regulated in Europe as a Class IIb medical device, under the authority of the new Medical Device Directives ("MDD") being implemented by European Union ("EU") member countries. This classification applies to medical laboratory equipment and supplies including, among other products, many devices that are used for the collection and processing of blood for patient therapy. Certain ancillary products (e.g., biological reagents) used with the Aastrom CPS may be considered Class III medical devices.

The MDD regulations vest the authority to permit affixing of the "CE Mark" with various "Notified Bodies." These are private and state organizations which operate under license from the EU to certify that appropriate quality assurance standards and compliance procedures are followed by developers and manufacturers of medical device products or, alternatively, that a manufactured medical product meets a more limited set of requirements. Notified Bodies are also charged with responsibility for determination of the appropriate standards to apply to a medical product. Receipt of permission to affix the CE Mark enables a company to sell a medical device in all EU member countries. Other registration requirements may also need to be satisfied in certain countries, although there is a general trend among EU member countries not to impose additional requirements beyond those specified for CE Mark certification.

COMPETITION

The biotechnology and medical device industries are characterized by rapidly evolving technology and intense competition. The Company'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 the Company. 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 the Company. 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. The Company's product development efforts are primarily directed toward obtaining regulatory approval to market the Aastrom CPS for stem cell therapy. That market is currently dominated by the bone marrow harvest and PBPC collection methods. The Company's clinical data, although early, is inconclusive as to whether or not cells expanded in the Aastrom CPS will enable hematopoietic recovery within the time frames currently achieved by

the bone marrow harvest and PBPC collection methods. In addition, the bone marrow harvest and PBPC collection methods have been widely practiced for a number of years and, recently, the patient costs associated with these procedures have begun to decline. There can be no assurance that the Aastrom CPS 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. The Company 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 the Company has targeted for product development. In particular, the Company is aware that competitors such as Amgen, Inc., CellPro, Incorporated, Systemix, Inc., Baxter Healthcare Corp. and RPR are in advanced stages of development of technologies and products for use in stem cell therapy and other market applications currently being pursued by the Company. In addition, Cobe, a significant shareholder of the Company, is a market leader in the blood cell processing products industry and, accordingly, a potential competitor of the Company. There can be no assurance that developments by others will not render the Company's product candidates or technologies obsolete or noncompetitive, that the Company will be able to keep pace with new technological developments or that the Company's product candidates will be able to supplant established products and methodologies in the therapeutic areas that are targeted by the Company. The foregoing factors could have a material adverse effect on the Company's business, financial condition and results of operations.

The Company's products under development are expected to address a broad range of existing and new markets. The Company believes that its stem cell therapy products will, in large part, face competition by existing procedures rather than novel new products. The Company's competition will be determined in part by the potential indications for which the Company'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 the Company 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. The Company'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. The Company expects its products, if approved for sale, to compete primarily on the basis of product efficacy, safety, patient convenience, reliability, value and patent position.

FACILITIES

The Company leases approximately 20,000 square feet of office and research and development space in Ann Arbor, Michigan under a lease agreement expiring in May 1998. The lease is renewable at the option of the Company for up to an additional five-year term. The Company believes that its facilities will be adequate for its currently anticipated needs. Contract manufacturing or additional facilities will be required in the future to support expansion of research and development and to manufacture products.

EMPLOYEES

As of November 30, 1996, the Company employed approximately 65 individuals full-time. A significant number of the Company's management and professional employees have had prior experience with pharmaceutical, biotechnology or medical product companies. None of the Company's employees are covered by collective bargaining agreements, and management considers relations with its employees to be good.

LEGAL PROCEEDINGS

The Company 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.

DIRECTORS AND EXECUTIVE OFFICERS

The following table provides information concerning directors and executive officers of the Company as of November 30, 1996:

NAME	AGE	POSITION
Robert J. Kunze(2)(3).....	61	Chairman of the Board; Director
R. Douglas Armstrong, Ph.D.(3)...	43	President and Chief Executive Officer; Director
James Maluta.....	49	Vice President, Product Development
Todd E. Simpson.....	35	Vice President, Finance & Administration; Chief Financial Officer; Secretary; and Treasurer
Walter C. Ogier.....	40	Vice President, Marketing
Thomas E. Muller, Ph.D.....	61	Vice President, Regulatory Affairs
Alan K. Smith, Ph.D.....	41	Vice President, Research
Stephen G. Emerson, M.D., Ph.D...	43	Director; Scientific Advisor
Albert B. Deisseroth, M.D., Ph.D.(2).....	55	Director; Scientific Advisor
G. Bradford Jones(1)(3).....	41	Director
Horst R. Witzel, Dr.-Ing.....	69	Director
Edward C. Wood, Jr.(1)(3).....	52	Director

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(1) Member of Audit Committee.
(2) Member of Compensation Committee.
(3) Member of Executive Committee.

All directors hold office until the next election of the class for which such directors have been chosen and until their successors have been duly elected and qualified. The Company's Bylaws provide that the Board of Directors will consist of between five and nine members, and the number of directors is currently set at seven members. The Bylaws also provide that the Board of Directors will serve staggered three-year terms, or until their successors are elected and qualified. The terms of office of the Company's current directors expire as follows: Mr. Jones, Dr. Deisseroth and Mr. Wood, 1999; Mr. Kunze and Dr. Emerson, 1998; and Dr. Armstrong and Dr. Witzel, 1997. Officers are elected by and serve at the discretion of the Board of Directors. There are no family relationships among the directors or officers of the Company.

Robert J. Kunze a director of the Company since its inception in 1989, is a founder of the Company and served as its President and Chief Executive Officer through May 1991. Since 1987, he has been a General Partner of H&Q Life Science Venture Partners, a venture capital fund specializing in medical products and biotechnology investments. Previous to that, Mr. Kunze was Managing Partner of Hambrecht & Quist Venture Partners. Prior to that he served as a senior executive with W.R. Grace & Co. and General Electric. Mr. Kunze also serves on the Board of Directors of Escalon Medical Corporation.

R. Douglas Armstrong, Ph.D. joined the Company 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"), 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 Nephros Therapeutics, Inc.

James Maluta joined the Company in August 1992 as Vice President, Product Development. Mr. Maluta has a broad background in the development and manufacturing of medical devices, with 25 years of experience in the industry, principally with OHMEDA and with Cobe BCT, Inc. While with Cobe BCT, Inc., Mr. Maluta was Program Manager for the Cobe Spectra Apheresis System, a device for blood cell processing and apheresis. Mr. Maluta held other engineering management positions and also was director of Quality Assurance for Cobe BCT. Mr. Maluta received his degree in electrical engineering from the University of Wisconsin.

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

Walter C. Ogier joined the Company in March 1994 as Director of Marketing and was promoted to Vice President, Marketing during 1995. Prior to that, Mr. Ogier was at Baxter Healthcare Corporation's Immunotherapy Division, where he served as Director, Business Development from 1992 to 1994 and as Manager, Marketing and Business Development in charge of the company's cell therapy product lines from 1990 to 1992. Mr. Ogier previously held positions with Ibbottson Associates and with the Business Intelligence Center at SRI International (formerly Stanford Research Institute). Mr. Ogier received his B.A. degree in Chemistry from Williams College in 1979 and his Masters of Management degree from the Yale School of Management in 1987.

Thomas E. Muller, Ph.D. joined the Company in May 1994 as Vice President, Regulatory Affairs. Prior to that, Dr. Muller was Director, Biomedical Systems with W.R. Grace & Company in Lexington, Massachusetts. Prior to this, Dr. Muller was Vice President, Engineering and Director of Research and Development with the Renal Division of Baxter Healthcare in Deerfield, Illinois. Dr. Muller has also served as Adjunct Professor at Columbia University and as Visiting Professor at the University of Gent, Belgium. Dr. Muller graduated from the Technical University in Budapest, Hungary, in 1956 with a B.S. in Chemical Engineering. Dr. Muller received his M.S. degree in 1959 and was awarded a Ph.D. in 1964, both in Polymer Chemistry, from McGill University.

Alan K. Smith, Ph.D. joined the Company in November 1995 as Vice President, Research. Previously, Dr. Smith was Vice President of Research and Development at Geneic Sciences, Inc., a developmental stage bone marrow transplantation company. Prior to that, Dr. Smith held the position of Director, Cell Separations Research and Development of the Immunotherapy Division of Baxter Healthcare Corporation. In this capacity, he was responsible for the research and development activities for a stem cell concentration system approved for clinical use in Europe and currently in pivotal clinical trials in the United States. Dr. Smith has also held positions as Research and Development Manager at BioSpecific Technologies, as Director of Biochemistry at HyClone Laboratories and as a member of the Board of Directors of Dallas Biomedical. Dr. Smith received his B.S. degree in Chemistry from Southern Utah State College in 1976 and a Ph.D. in Biochemistry from Utah State University in 1983.

Stephen G. Emerson, M.D., Ph.D. a director since the inception of the Company in 1989, is a scientific founder of the Company and has been an active advisor of the Company since that time. Dr. Emerson has been a Professor of Medicine at the University of Pennsylvania since 1994 where he serves as head of Hematology and Oncology. From 1991 to 1994, Dr. Emerson was an Associate Professor of Medicine at the University of Michigan. Dr. Emerson received his doctorate degrees in Medicine and Cell Biology/Immunology from Yale University. He completed his internship and residency at Massachusetts General Hospital and his clinical and research fellowship in hematology at the Brigham and Women's Hospital, the Dana-Farber Cancer Institute and Children's Hospital Medical Center.

Albert B. Deisseroth, M.D., Ph.D. a director since August 1991, currently serves as an Ensign Professor of Medicine and the Chief, Section of Medical Oncology at Yale University and is a professor at both the University of Texas Graduate School of Biomedical Sciences and the University of Texas Health Science Center Medical

School in Houston, Texas. Prior to that, Dr. Deisseroth had been Chairman of the Department of Hematology and a Professor of Medicine and Cancer Treatment and Research at the University of Texas, M.D. Anderson Cancer Center in Houston, Texas. Previous to this, Dr. Deisseroth served as Professor of Medicine at the University of California, San Francisco, and Chief, Hematology/Oncology at the San Francisco Veteran's Administration Medical Center. Dr. Deisseroth received his doctorate degrees in Medicine and Biochemistry from the University of Rochester. Dr. Deisseroth is currently a member of the Scientific Advisory Boards of Ingenex, Inc., Genvec, Inc. and Incell.

G. Bradford Jones a director since April 1992, is a general partner of Brentwood V Ventures, L.P., the general partner of Brentwood Associates V, L.P. Brentwood Associates V, L.P. is a partnership organized by the firm Brentwood Venture Capital, which Mr. Jones joined in 1981. Mr. Jones was elected to the Board of Directors of the Company pursuant to the terms of the Series B Preferred Stock Purchase Agreement dated April 7, 1992 with the Company, of which Brentwood Associates V, L.P. is a party. Mr. Jones received a B.A. degree in Chemistry and an M.A. degree in Physics from Harvard University and M.B.A. and J.D. degrees from Stanford University. Mr. Jones also serves on the Board of Directors of Interpore International, ISOCOR, Onyx Acceptance Corporation, Plasma & Materials Technologies, and several privately-held companies.

Horst R. Witzel, Dr.-Ing. a director since June 1994, served as Chairman of the Board of Executive Directors of Schering AG in Berlin, Germany from 1986 until his retirement in 1989, whereupon he became a member of the Supervisory Board of Schering AG until 1994. Prior to that, Dr. Witzel held various leadership positions in research and development with Schering AG where he was responsible for worldwide production and technical services. Dr. Witzel received his doctorate in chemistry from the Technical University of West Berlin. Dr. Witzel also serves on the Board of Directors of The Liposome Company, Inc. and Cephalon, Inc. and is a member of the Supervisory Board of Brau and Brunnen AG.

Edward C. Wood, Jr. a director since August 1994, has served as president of Cobe BCT, Inc., a division of Cobe Laboratories, Inc., since 1991. Cobe is a subsidiary of Gambro AB, a Swedish company, and is a leading provider of blood cell processing products. Prior to that, Mr. Wood held various positions in manufacturing, research and development, and marketing with Cobe. Mr. Wood received degrees in chemistry from Harvey Mudd College and in management from the University of Colorado.

LIMITATION OF LIABILITY AND INDEMNIFICATION MATTERS

The Company has adopted provisions in its Restated Articles of Incorporation that limit the liability of its directors for monetary damages arising from a breach of their fiduciary duty as directors, except under certain circumstances which include breach of the director's duty of loyalty to the Company or its shareholders, acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of the law.

The Company's Bylaws provide that the Company shall indemnify its directors to the fullest extent authorized or permitted by the Michigan Business Corporation Act. Additionally, the Company has entered into an Indemnification Agreement, originally dated as of December 14, 1993 (the "Indemnification Agreement"), with certain of its directors, officers and other key personnel, which may, in certain cases, be broader than the specific indemnification provisions contained under applicable law. The Indemnification Agreement may require the Company, among other things, to indemnify such officers, directors and key personnel against certain liabilities that may arise by reason of their status or service as directors, officers or employees of the Company, to advance the expenses incurred by such parties as a result of any threatened claims or proceedings brought against them as to which they could be indemnified, and to cover such officers, directors and key employees under the Company's directors' and officers' liability insurance policies to the maximum extent that insurance coverage is maintained.

At present, there is no pending litigation or proceeding involving a director, officer, employee or agent of the Company where indemnification by the Company will be required or permitted. The Company is not aware of any threatened litigation or proceeding which may result in a claim for such indemnification.

EXECUTIVE COMPENSATION

The following table summarizes the compensation paid to or earned by the Company's Chief Executive Officer and all other executive officers of the Company whose salary and bonus for services rendered in all capacities to the Company during the fiscal year ended June 30, 1996 exceeded $100,000 (the "named executive officers"):

SUMMARY COMPENSATION TABLE

NAME AND 1996 PRINCIPAL POSITION	YEAR	ANNUAL COMPENSATION SALARY ($)	ANNUAL COMPENSATION BONUS ($)	OTHER ANNUAL COMPENSATION ($)	ALL OTHER COMPENSATION ($)
R. Douglas Armstrong, Ph.D., President and Chief Executive Officer	1996	$156,962	$55,000	--	$8,885(1)
James Maluta, Vice President, Product Development	1996	$118,942	$10,000	--	--
Thomas E. Muller, Ph.D., Vice President, Regulatory Affairs	1996	$118,560	--	--	--
Walter C. Ogier, Vice President, Marketing	1996	$106,250	$ 7,500	--	--

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(1) Consists of vacation pay to Dr. Armstrong in 1996.

1996 Option Grants

The following table contains information about the stock option grants to the named executive officers in 1996:

OPTION GRANTS IN LAST FISCAL YEAR

NAME	INDIVIDUAL GRANTS: NUMBER OF SECURITIES UNDERLYING OPTIONS GRANTED (#)	INDIVIDUAL GRANTS: % OF TOTAL OPTIONS GRANTED TO EMPLOYEES IN FISCAL YEAR	INDIVIDUAL GRANTS: EXERCISE OR BASE PRICE ($/SH)	INDIVIDUAL GRANTS: EXPIRATION DATE	POTENTIAL REALIZED VALUE AT ASSUMED ANNUAL RATES OF STOCK PRICE APPRECIATION FOR OPTION TERM(1): 5% ($)	10% ($)
R. Douglas Armstrong, Ph.D.	--	--	--	--	--	--
James Maluta	--	--	--	--	--	--
Thomas E. Muller, Ph.D.	6,667	4.3%	1.20	02/14/06	5,000	12,734
Walter C. Ogier	6,667	4.3%	1.20	02/14/06	5,000	12,734

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(1) The 5% and the 10% assumed rates of appreciation are established by the rules of the Securities and Exchange Commission and do not represent the Company's estimate or projection of the future Common Stock price. If the Common Stock price of $1.20 on the date of grant for the options granted in 1996 were to appreciate at the rates indicated, it would be $1.95 per share (at a 5% compounded appreciation) and $3.11 per share (at a 10% compounded appreciation) on the date of expiration of those options.

Option Exercises and Year-End Values

The following table provides information about the number of shares issued upon option exercise by the named executive officers during 1996, and the value realized by the named executive officers. The table also provides information about the number and value of options held by the named executive officers at June 30, 1996:

AGGREGATED OPTION EXERCISES IN LAST FISCAL YEAR
AND FY-END OPTION VALUES

			NUMBER OF SECURITIES UNDERLYING UNEXERCISED OPTIONS AT FY-END (#)		VALUE OF UNEXERCISED IN-THE-MONEY OPTIONS AT FY-END ($)(1)	
NAME	SHARES ACQUIRED ON EXERCISE (#)	VALUE REALIZED($)	EXERCISABLE	UNEXERCISABLE	EXERCISABLE	UNEXERCISABLE
R. Douglas Armstrong, Ph.D.	--	--	--	--	--	--
James Maluta	29,999	86,847	16,668	--	$48,254	--
Thomas E. Muller, Ph.D.	--	--	15,000	18,334	29,925	$36,576
Walter C. Ogier	5,000	9,975	13,750	21,250	27,431	42,394

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(1) The option value represents fair market value of the underlying securities on the exercise date minus the aggregate exercise price of such options, multiplied by the number of shares of Common Stock subject to the option. For purposes of this calculation, a fair market value of $3.20 per share was used, the fair market value of the securities as determined by the Board of Directors on June 30, 1996.

No compensation intended to serve as incentive for performance to occur over a period longer than one fiscal year was paid pursuant to a long-term incentive plan during the last fiscal year to any of the persons named in the Summary Compensation Table. The Company does not have any defined benefit or actuarial plan with any of the persons named in the Summary Compensation Table under which benefits are determined primarily by final compensation or average final compensation and years of service.

EMPLOYMENT AGREEMENTS

The Company has a policy of entering into employment agreements with all of its employees, and has entered into such agreements with all of its executive officers other than Dr. Armstrong. Such employment agreements generally establish salary levels (which are subject to periodic review) and provide for customary fringe benefits such as vacation leave, sick leave and health insurance. The agreements also generally provide for the protection of confidential information and the assignment to the Company of inventions conceived by the employee during his or her employment and permit the termination of the employment relationship by either party upon fourteen days prior written notice. The following is a summary of the employment agreements between the Company and its executive officers.

The Company entered into employment agreements with no defined terms with James Maluta, Walter C. Ogier, Thomas E. Muller, Ph.D., Alan K. Smith, Ph.D. and Todd E. Simpson in June 1992, February 1994, April 1994, October 1995 and December 1995, respectively. Pursuant to these agreements, the Company agreed to pay Messrs. Maluta, Ogier, Muller, Smith and Simpson annual base salaries of $90,000, $87,500, $110,000, $122,500 and $122,500, respectively, certain of which base salaries have been increased by the Board of Directors and are subject to annual review and adjustment. Pursuant to the terms of the foregoing employment agreements, either party may generally terminate the employment relationship without cause at any time upon 14 days prior written notice to the other party or immediately with cause upon notice.

STOCK OPTION AND EMPLOYEE BENEFIT PLANS

1989 STOCK OPTION PLAN

In 1989, the Company established the 1989 Stock Option Plan. As of September 30, 1996, options to purchase an aggregate of 932,266 shares of Common Stock have been exercised at $0.15 per share. Options to purchase 13,127 shares of Common Stock at $0.15 per share were cancelled unexercised. No additional shares remain available for grant under the 1989 Stock Option Plan.

ANCILLARY PLAN

In 1991, the Company established an Ancillary Plan to grant options to individuals who were not eligible to receive options under the 1989 Stock Option Plan. Options to purchase an aggregate of 7,498 shares of the Company's Common Stock were granted under the Ancillary Plan, of which options to purchase 4,328 shares have been exercised at $0.15 per share and the remaining options to purchase 3,170 shares have been cancelled. No additional shares remain available for grant under the Ancillary Plan.

AMENDED AND RESTATED 1992 INCENTIVE AND NON-QUALIFIED STOCK OPTION PLAN

In 1992, the Company adopted the 1992 Incentive and Non-Qualified Stock Option Plan (the "1992 Plan"), providing for the grant of options to purchase 666,667 shares of Common Stock. The Company allocated an additional 100,000 shares of Common Stock during 1992, an additional 333,333 shares of Common Stock in 1994 and an additional 800,000 shares of Common Stock in 1996 to the 1992 Plan, resulting in a total share reserve of 1,900,000 shares. The 1992 Plan was amended and restated to its current form in 1996. Options under the 1992 Plan for a total of 462,840 shares have been exercised as of September 30, 1996. As of September 30, 1996, options to purchase 336,254 shares of Common Stock were outstanding with a weighted average exercise price of $1.27 per share.

The 1992 Plan provides for grants to employees and officers of "incentive stock options" within the meaning of Section 422 of the Internal Revenue Code of 1986, as amended, provided that such employee or officer is an employee on the date of grant. The 1992 Plan also provides for grants to employees, officers, consultants or service providers of nonqualified stock options. The 1992 Plan previously has been administered by the Board of Directors, but is currently administered by the Compensation Committee of the Board of Directors (the "Committee"). Each option granted pursuant to the 1992 Plan is authorized by the Committee and evidenced by a notice in such form as the Committee may from time to time determine.

The exercise price of each incentive stock option granted under the 1992 Plan must be at least equal to the fair market value of a share of Common Stock on the date of grant, except for incentive stock options granted to individuals who, at the time of grant, own stock possessing more than 10% of the total combined voting power of the Company, which options must have an exercise price of at least 110% of the fair market value of a share of Common Stock on the date of grant and must expire five years from the date of grant. The exercise price of each nonqualified stock option granted under the 1992 Plan must be at least 85% of the fair market value of the shares on the date of grant. No option shall be treated as an incentive stock option to the extent that such option would cause the aggregate fair market value (determined as of the date of grant of such option) of the shares with respect to which incentive stock options are exercisable by such optionee for the first time during any calendar year to exceed $100,000. The terms of all incentive stock options and nonqualified stock options granted under the 1992 Plan may not exceed ten years. The exercise price may be paid in cash or, at the Committee's discretion, by delivery of previously owned shares of the Company's Common Stock, by a combination of cash and shares, or any other form of legal consideration acceptable to the Committee. Options under the 1992 Plan generally may not be granted after April 2006.

The 1992 Plan provides that if the Company is a party to any merger in which the Company is not the surviving entity, any consolidation or dissolution (other than the merger or consolidation of the Company with one or more of its wholly-owned subsidiaries), the Company must cause any successor corporation to assume the options or substitute similar options for outstanding options or continue such options in effect. In the event that any successor to the Company in a merger, consolidation or dissolution will not assume the options or substitute similar options, then with respect to options held by optionees performing services for the Company, the time for exercising such options will be accelerated and such options will be terminated if not exercised prior to such merger, consolidation or dissolution.

1996 OUTSIDE DIRECTORS STOCK OPTION PLAN

A total of 150,000 shares of Common Stock have been reserved for issuance under the Company's 1996 Outside Directors Stock Option Plan (the "Directors Plan"). As of the date of this Prospectus, no options have been granted under the Directors Plan. The Directors Plan provides for the automatic granting of non-qualified stock options to directors of the Company who are not employees of the Company ("Outside Directors"). Under the Directors Plan, each Outside Director serving on the effective date of this Offering or elected after the date of this offering will automatically be granted an option to purchase 5,000 shares of Common Stock on the effective date of this offering or on the date of his or her election or appointment. In addition, each serving Outside Director will thereafter automatically be granted an option to purchase 5,000 shares of Common Stock following each annual meeting of shareholders after their election, provided that the Outside Director continues to serve in such capacity and that the Outside Director has served continuously as a director for at least six months. The exercise price of the options in all cases will be equal to the fair market value of the Common Stock on the date of grant. Options granted under the Directors Plan generally vest over a one-year period in equal monthly installments and must be exercised within ten years from the date of grant.

1996 EMPLOYEE STOCK PURCHASE PLAN

A total of 250,000 shares of the Company's Common Stock have been reserved for issuance under the Company's 1996 Employee Stock Purchase Plan (the "Purchase Plan"), none of which have been issued. The Purchase Plan permits eligible employees to purchase Common Stock at a discount through payroll deductions, during sequential 24-month offering periods. Each offering period is divided into four consecutive six-month purchase periods. 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 Purchase 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. The initial offering period will commence on the effective date of this offering.

SECTION 401(K) PLAN

Effective January 1, 1994, the Company adopted the Aastrom Biosciences, Inc. 401(k) Plan (the "Plan"). The Plan is intended to be a qualified retirement plan under the Internal Revenue Code. Employees of the Company are eligible to participate in the Plan upon the completion of three consecutive months of employment. Participants may make salary deferral contributions to the Plan of up to 15% of compensation, subject to the limitations imposed under the Internal Revenue Code. The Company may, but is not required to, make matching contributions to the Plan based on the participants' salary-defined contributions. Employer contributions are subject to a graduated vesting schedule based upon an employee's years of service with the Company. It is not anticipated that the Company will make any contributions to the Plan for the 1997 Plan Year. All contributions to the Plan are held in a trust which is intended to be exempt from income tax under Section 501(a) of the Internal Revenue Code. The Plan's trustees are R. Douglas Armstrong and Todd E. Simpson. Participants may direct the investment of their contributions among specified Merrill Lynch investment funds. The Plan may be amended or terminated by the Company at any time, subject to certain restrictions imposed by the Internal Revenue Code and the Employee Retirement Income Security Act of 1974.

COMPENSATION OF DIRECTORS

Directors of the Company do not receive cash for services provided as a director, however, directors who are not employees of the Company will receive annual grants of options to purchase Common Stock in accordance with the Directors Plan. No stock options or any other form of non-cash compensation were granted to directors of the Company during the Company's fiscal year ending June 30, 1996. See "Stock Option and Employee Benefit Plans--1996 Outside Directors Stock Option Plan."

COMPENSATION COMMITTEE INTERLOCKS AND INSIDER PARTICIPATION IN COMPENSATION DECISIONS

During the fiscal year ended June 30, 1996, Robert J. Kunze, formerly an officer of the Company until 1991, R. Douglas Armstrong, President and Chief Executive Officer of the Company, and G. Bradford Jones were the members of the Compensation Committee of the Board of Directors. Dr. Armstrong resigned from the Compensation Committee and was replaced by Albert B. Deisseroth, M.D., Ph.D. on April 30, 1996, however, Mr. Kunze continues to be a member of this committee.

CERTAIN TRANSACTIONS

In April 1995, the Company sold 775,001 shares of Series D Preferred Stock at a price per share of $4.00 to the following investors: (i) H&Q Life Science Technology Fund I purchased 167,001 shares for a purchase price of $668,004, (ii) H&Q London Ventures purchased 100,000 shares for a purchase price of $400,000, (iii) Brentwood Associates V, L.P. ("Brentwood") purchased 231,250 shares for a purchase price of $925,000, (iv) Windpoint Partners II, L.P. purchased 89,250 shares for a purchase price of $357,000, and (v) the State Treasurer of the State of Michigan ("Michigan") purchased 187,500 shares for a purchase price of $750,000. In May 1995, Cobe purchased 1,250,000 shares of Series D Preferred Stock for a purchase price of $5,000,000. Upon the closing of this offering, each outstanding share of Series D Preferred Stock will be converted into two-thirds of a share of Common Stock.

In April 1995, Dr. Armstrong and Dr. Emerson agreed to grant to Brentwood an option to purchase up to 28,000 shares and 14,667 shares of Common Stock, respectively, and, together with two other shareholders of the Company, an aggregate of up to 66,667 shares of Common Stock at a purchase price of $100,000. Brentwood exercised this option in April, 1996 purchasing an aggregate of 66,667 shares of Common Stock at a purchase price of $100,000 from such shareholders.

In September 1995, the Company and RPR entered into a collaborative relationship for use of the Aastrom CPS as a component of its lymphoid cell therapy program. On September 6, 1996, RPR notified the Company that it would not exercise its option to continue the collaboration. As a result, $3,500,000 of option payments previously paid to the Company by RPR were converted into 205,882 shares of the Company's Series E Preferred Stock.

In October 1995, the Company repurchased 62,500 shares of Series D Preferred Stock from Brentwood at the original purchase price of $250,000 and in December 1995 resold these shares to Northwest Ohio Venture Fund, a shareholder of the Company, for a total purchase price of $250,000.

In January 1996, the Company sold 1,411,765 shares of Series E Preferred Stock at a price per share of $4.25 to the following investors: (i) Michigan purchased 470,588 shares for a total purchase price of $1,999,999, and (ii) SBIC Partners, L.P. purchased 941,177 shares for a total purchase price of $4,000,002. Upon the closing of this offering, each outstanding share of Series E Preferred Stock will be converted into two-thirds of a share of Common Stock.

On November 18, 1993, in connection with the purchase of Common Stock upon exercise of stock options granted to R. Douglas Armstrong under the 1989 Stock Option Plan, the Company loaned to Dr. Armstrong $120,000 at an interest rate of 4% per annum pursuant to a full recourse promissory note. Interest on the note is payable on an annual basis and principal and accrued but unpaid interest is due on June 30, 1997. Dr. Armstrong is the President and Chief Executive Officer and is a director of the Company.

On October 20, 1993, in connection with the purchase of Common Stock upon exercise of stock options granted to Stephen G. Emerson under the 1989 Stock Option Plan, the Company loaned to Dr. Emerson $47,303 at an interest rate of 6% per annum pursuant to a full recourse promissory note. Interest on the note is payable on an annual basis and principal and accrued but unpaid interest is due June 30, 1997. The loan is secured by 258,687 shares of Common Stock held by Dr. Emerson. Dr. Emerson is a director of the Company.

In October 1993, the Company issued and sold 10,000 shares of Series C Preferred Stock to Cobe at a purchase price of $1,000 per share. Upon the closing of this offering, each outstanding share of Series C Preferred Stock will be converted into 166 and two-thirds shares of Common Stock.

In October 1996, the Company executed a financing commitment with Cobe to provide the Company with up to $5,000,000 (the "Equity Commitment") and up to $5,000,000 in funding from Michigan under a convertible loan commitment agreement ("Convertible Loan Commitment"). As of the date of this Prospectus, the Company has not obtained any financing under these commitments. Both the Equity Commitment and the Convertible Loan Commitment will terminate upon the consummation of this offering.

Under the terms of the Equity Commitment, the Company has an option to sell up to $5,000,000 of Series F Preferred Stock at a price of $6.00 per share to Cobe upon at least ninety days notice, which notice may be given at any time until September 1, 1997. Cobe's obligation to purchase such shares will terminate upon the closing of this offering. Although no shares of Series F Preferred Stock are outstanding as of the date of this Prospectus, any outstanding shares of Series F Preferred Stock would convert upon the closing of this offering into Common Stock based upon a conversion price of 80% of the price of two-thirds of a share of Common Stock sold in this offering. To the extent shares are sold to Cobe under the Equity Commitment, Cobe's preemptive right in the Company's next financing and the Company's Put Option to Cobe would be reduced.

On December 10, 1996, the Company issued to Cobe a notice to sell to Cobe 500,000 shares of Series F Preferred Stock for an aggregate purchase price of $3,000,000 under the Equity Commitment. Such sale is scheduled to close on March 19, 1997. In the event that this offering closes prior to March 19, 1997, Cobe's obligation to purchase Series F Preferred Stock under the Equity Commitment will terminate. In the event that this offering closes after March 19, 1997, Cobe's participation in this offering will be reduced by $3,000,000, the amount of its purchase of Series F Preferred Stock pursuant to the Equity Commitment.

Upon the sale of $5,000,000 of Series F Preferred Stock under the Equity Commitment, the Company becomes entitled to borrow funds from Michigan under the Convertible Loan Commitment. The Company may borrow such funds upon at least 45 days notice, which notice may be given during a period commencing on October 15, 1996 and ending on September 1, 1997. Upon the completion by the Company of a Qualifying Financing (as defined in the Convertible Loan Commitment), the Company has the option to repay outstanding principal and interest under the Convertible Loan Commitment in cash or to convert such borrowings into convertible Preferred Stock at a conversion price equivalent to 90% of the price per share in such financing. Under certain circumstances, the Convertible Loan Commitment converts or is convertible into Series G Preferred Stock. Interest accrues at an annual rate of 10% under the Convertible Loan Commitment, and the Company may repay such principal and interest at any time without penalty.

The Company has issued warrants to Michigan to purchase 69,444 shares of Common Stock as consideration for securing the Convertible Loan Commitment and has agreed to issue additional warrants to purchase 8,333 shares of Common Stock for each $1,000,000 borrowed under the Convertible Loan Commitment, as adjusted to the level of borrowing. The warrants become exercisable 90 days after the closing of this offering. The warrants expire on October 15, 2000 if not exercised, and may be exercised, in whole or in part, at a price equal to the lesser of (a) $9.00 per share, which price increases by $3.00 per share upon each anniversary of the closing of the offering made hereby; and (b) 85% of the fair market value of the Company's Common Stock at the time of exercise.

Pursuant to its letter dated November 11, 1996, Cobe has elected to purchase $5,000,000 of the Company's Common Stock in this offering at the initial public offering price per share in satisfaction of its preemptive rights under the Cobe Stock Agreement. In addition, the Company has elected not to exercise its put option rights under the Cobe Stock Agreement with respect to this offering. See "Description of Capital Stock--Rights of Cobe."

The Company has entered into employment agreements with certain of its executive officers. See "Management--Employment Agreements." The Company has also entered into an Indemnification Agreement with certain of its directors, officers and other key personnel. See "Management--Limitation of Liability and Indemnification Matters."

PRINCIPAL SHAREHOLDERS

The following table sets forth certain information regarding the beneficial ownership of the shares of the Company's Common Stock as of September 30, 1996, and as adjusted to give effect to the sale of 3,250,000 shares of Common Stock in this offering assuming (a) conversion of all of the Company's outstanding shares of Preferred Stock into Common Stock and (b) no exercise of the Underwriters' over-allotment option, and as adjusted to reflect the sale of shares offered in this offering, (i) by each person the Company knows to be the beneficial owner of 5% or more of the outstanding shares of Common Stock, (ii) each named executive officer listed in the Summary Compensation Table, (iii) each director of the Company, and (iv) all executive officers and directors of the Company as a group.

	SHARES BENEFICIALLY OWNED BEFORE THE OFFERING(1)		SHARES BENEFICIALLY OWNED AFTER THE OFFERING(1)	
BENEFICIAL OWNER	NUMBER	PERCENT	NUMBER	PERCENT
H&Q Life Science(2)..... Technology Fund I One Bush Street, 18th Floor San Francisco, CA 94104	1,061,334	10.6%	1,061,334	8.0%
H&Q London Ventures..... One Bush Street, 18th Floor San Francisco, CA 94104	816,666	8.2%	816,666	6.2%
State Treasurer of the State of Michigan,(3)..... Custodian of certain retirement systems c/o Venture Capital Division 430 West Allegan Lansing, MI 48992	1,338,724	13.4%	1,338,724	10.1%
SBIC Partners, L.P..... 201 Main Street, Suite 2302 Fort Worth, TX 76102	627,451	6.3%	627,451	4.7%
Brentwood Associates V, L.P.(4).. 11150 Santa Monica Blvd., Suite 1200 Los Angeles, CA 90025	745,831	7.5%	745,831	5.6%
Wind Point Partners II, L.P..... 676 N. Michigan Ave., Suite 3300 Chicago, IL 60611	559,500	5.6%	559,500	4.2%
Cobe Laboratories, Inc.(5)..... 1185 Oak Street Lakewood, CO 80215	2,499,999	25.0%	3,055,555	23.1%
R. Douglas Armstrong, Ph.D.(6)...	501,555	5.0%	501,555	3.8%
Albert B. Deisseroth, M.D., Ph.D.	25,000	*	25,000	*
Stephen G. Emerson, M.D., Ph.D. .	256,789	2.6%	256,789	1.9%
G. Bradford Jones(7).....	745,831	7.5%	745,831	5.6%
Robert J. Kunze(8).....	1,061,334	10.6%	1,061,334	8.0%
James Maluta(9).....	83,333	*	83,333	*
Thomas E. Muller, Ph.D.(10).....	15,000	*	15,000	*
Walter C. Ogier(11).....	20,833	*	20,833	*
Horst R. Witzel, Dr.-Ing.(12)....	8,237	*	8,237	*
Edward C. Wood, Jr.(13).....	2,499,999	25.0%	3,055,555	23.1%
All officers and directors as a group (12 persons)(14).....	5,237,911	52.1%	5,793,467	43.5%

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* Represents less than 1% of outstanding Common Stock or voting power.

(1) Shares beneficially owned and percentage of ownership are based on 9,985,734 shares of Common Stock outstanding before this offering and 13,235,734 shares of Common Stock outstanding after the closing of this offering. Beneficial ownership is determined in accordance with the rules of the SEC and generally includes voting or disposition power with respect to securities.

(2) Robert J. Kunze, Chairman of the Board of the Company, is a general partner of H&Q Life Science Venture Partners. See footnote 8, below.

(3) Does not include 69,444 shares issuable upon exercise of warrants held by Michigan that are exercisable 90 days after the closing of this offering.

(4) G. Bradford Jones, a director of the Company, is a general partner of Brentwood Associates V Ventures, L.P., which is the general partner of Brentwood Associates V, L.P. See footnote 7, below.

(5) The shares attributed to Cobe in the "Shares Beneficially Owned After the Offering" column include 555,556 shares of Common Stock which Cobe has agreed to purchase in this offering, assuming the closing of this offering at an initial public offering price of $9.00 per share. In addition, pursuant to the Cobe Stock Agreement, Cobe has an option to purchase from the Company an amount of Common Stock equal to 30% of the Company's fully diluted shares after the exercise of such option, at a purchase price equal to 120% of the public market trading price of the Company's Common Stock for a three-year period following the closing of this offering. Cobe also has a "right of first negotiation" in the event the Company receives any proposal concerning, or otherwise decides to pursue, a merger, consolidation or other transaction in which all or a majority of the Company's equity securities or all or substantially all of the Company's assets, or any material portion of the assets of the Company used by the Company in performing its obligations under the Distribution Agreement would be acquired by a third party outside of the ordinary course of business. Edward C. Wood, Jr., a director of the Company, is the President of Cobe BCT, Inc., an affiliate of Cobe. See footnote 13, below.

(6) Does not include 333,333 shares issuable upon exercise of options held by Dr. Armstrong that are exercisable upon the effective date of this offering.

(7) Consists of 745,831 shares held by Brentwood Associates V, L.P. See footnote 4, above. Mr. Jones, as a general partner of Brentwood Associates V Ventures, L.P., which is the general partner of Brentwood Associates V, L.P., may be deemed to beneficially own such shares, but Mr. Jones disclaims beneficial ownership of all such shares except to the extent of his pecuniary interest therein.

(8) Consists of 1,061,334 shares held by H&Q Life Science Technology Fund I. See footnote 2, above. Mr. Kunze, as a general partner of H&Q Life Science Venture Partners, may be deemed to beneficially own such shares, but Mr. Kunze disclaims beneficial ownership of all such shares except to the extent of his pecuniary interest therein.

(9) Includes 16,668 shares issuable upon exercise of options held by Mr. Maluta that are exercisable within the 60-day period following September 30, 1996. Also includes 66,665 shares held of record by James Maluta and Deborah Vincent, as Trustees, with shared voting and investment power, of the James Maluta and Deborah Vincent Living Trust dated October 26, 1993.

(10) Consists of 15,000 shares issuable upon exercise of options held by Dr. Muller that are exercisable within the 60-day period following September 30, 1996.

(11) Includes 15,833 shares issuable upon exercise of options held by Mr. Ogier that are exercisable within the 60-day period following September 30, 1996.

(12) Includes 2,237 shares issuable upon exercise of options held by Dr. Witzel that are exercisable within the 60-day period following September 30, 1996.

(13) The shares attributed to Mr. Wood in the "Shares Beneficially Owned Before the Offering" column consist of 2,499,999 shares held by Cobe and the shares attributed to Mr. Wood in the "Shares Beneficially Owned After the Offering" column consist of such shares and an additional 555,556 shares which Cobe has agreed to purchase in this offering, assuming the closing of this offering at an initial public offering price of $9.00 per share. See footnote 5, above. Mr. Wood, as the President of Cobe BCT, Inc., an affiliate of Cobe, may be deemed to beneficially own such shares, but Mr. Wood disclaims beneficial ownership of all such shares.

(14) Includes 69,738 shares issuable upon exercise of options that are exercisable within the 60-day period following September 30, 1996. Does not include 333,333 shares issuable upon exercise of options that are exercisable as of the date of this Prospectus.

DESCRIPTION OF CAPITAL STOCK

Upon the closing of this offering, the authorized capital stock of the Company will consist of 40,000,000 shares of Common Stock, no par value per share, and 5,000,000 shares of Preferred Stock, no par value per share.

COMMON STOCK

As of September 30, 1996, without giving effect to the conversion of each share of Preferred Stock into Common Stock upon the closing of this offering, there were 1,887,312 shares of Common Stock outstanding held of record by 32 shareholders.

The holders of Common Stock are entitled to one vote per share on all matters to be voted upon by the shareholders. Subject to preferences that may be applicable to outstanding shares of Preferred Stock, the holders of Common Stock are entitled to receive ratably such dividends, if any, as may be declared from time to time by the Board of Directors out of funds legally available therefor. See "Dividend Policy." In the event of liquidation, dissolution or winding up of the Company, the holders of Common Stock are entitled to share ratably in all assets remaining after payment of liabilities, subject to prior liquidation rights of holders of Preferred Stock then outstanding. The Common Stock has no preemptive or conversion rights or other subscription rights. There are no redemption or sinking fund provisions applicable to the Common Stock. All outstanding shares of Common Stock are fully paid and nonassessable. The rights, preferences and privileges of holders of Common Stock are set forth in the Company's Restated Articles of Incorporation, which Articles may be amended by the holders of at least two-thirds of the outstanding shares of Common Stock. The rights of the holders of Common Stock are also subject to, and may be adversely affected by, the rights of the holders of any shares of any Preferred Stock which the Company may designate and issue in the future.

PREFERRED STOCK

As of the closing of this offering, no shares of Preferred Stock will be outstanding. Thereafter, the Board of Directors will be authorized, without further shareholder approval, to issue up to 5,000,000 shares of Preferred Stock in one or more series and to fix the rights, preferences, privileges and restrictions granted or imposed upon any unissued shares of Preferred Stock and to fix the number of shares constituting any series and the designations of such series.

The issuance of Preferred Stock may have the effect of delaying or preventing a change in control of the Company. The issuance of Preferred Stock could decrease the amount of earnings and assets available for distribution to the holders of Common Stock or could adversely affect the rights and powers, including voting rights, of the holders of the Common Stock. In certain circumstances, such issuance could have the effect of decreasing the market price of the Common Stock. The Company currently has no plans to issue any shares of Preferred Stock.

MICHIGAN LAW AND CERTAIN CHARTER PROVISIONS

The Company is a Michigan corporation and is subject to certain anti-takeover provisions of the Michigan Business Corporation Act (the "MBCA") which could delay or make more difficult a merger or tender offer involving the Company. Chapter 7A of the MBCA prevents, in general, an "interested shareholder" (defined generally as a person owning 10% or more of a corporation's outstanding voting shares) from engaging in a "business combination" (as defined therein) with a Michigan corporation unless: (a) the Board of Directors issues an advisory statement, holders of 90% of the shares of each class of stock entitled to vote approve the transaction, and holders of two-thirds of the "disinterested" shares of each class of stock approve the transaction; or (b) the interested shareholder has been an interested shareholder for at least five years and has not acquired beneficial ownership of any additional shares of the corporation subsequent to the transaction which resulted in such shareholder being classified as an interested shareholder, and meets certain requirements, including, but not limited to, provisions relating to the fairness of the price and the form of consideration paid; or (c) the Board of Directors, by resolution, exempts a particular interested shareholder from these provisions prior to the interested

shareholder becoming an interested shareholder. The MBCA also contains certain other provisions which could have anti-takeover effects, including, but not limited to, Section 368, which pertains to "greenmail."

The Company's Bylaws provide that the Board of Directors is divided into three classes of directors, with each class serving a staggered three-year term. The classification system of electing directors may tend to discourage a third party from making a tender offer or otherwise attempting to obtain control of the Company and may maintain the incumbency of the Board of Directors, as it generally makes it more difficult for shareholders to replace a majority of the directors. The Company's Restated Articles of Incorporation eliminate the right of shareholders to act without a meeting and do not provide for cumulative voting in the election of directors. The amendment of any of these provisions would require approval by holders of at least two-thirds of the shares of outstanding Common Stock.

The foregoing and other statutory provisions and provisions of the Company's Restated Articles of Incorporation could have the effect of deterring certain takeovers or delaying or preventing certain changes in control or management of the Company, including transactions in which shareholders might otherwise receive a premium for their shares over then-current market prices.

REGISTRATION RIGHTS

Pursuant to the Amended and Restated Investors Rights Agreement, dated as of April 7, 1992, as amended (the "Investors Agreement"), certain holders of outstanding shares of Common Stock, including shares of Common Stock issuable upon conversion of the Preferred Stock (the "Registrable Securities"), are entitled to certain demand and incidental registration rights with respect to such shares, subject to certain customary limitations. Under the Investors Agreement, subject to certain exceptions, the holders of at least 50% of the Registrable Securities may require the Company to use its diligent best efforts to register Registrable Securities for public resale on one occasion (so long as such registration includes at least 20% of the Registrable Securities or a lesser percentage if the anticipated aggregate offering price net of underwriting discounts and commissions would exceed $2 million). In addition, whenever the Company proposes to register any of its securities under the Act, holders of Registrable Securities are entitled, subject to certain restrictions (including customary underwriters "cut back" limitations), to include their Registrable Securities in such registration. Subject to certain limitations, the holders of Registrable Securities may also require the Company to register such shares on Form S-3 no more than once every twelve months, provided that the anticipated aggregate proceeds would exceed $500,000. The Company is required to bear all registration and selling expenses (other than underwriter's discounts and commissions and more than a single special counsel to the selling shareholders) in connection with the registration of Registrable Securities in one demand registration and two piggy-back registrations. The participating investors are required to bear all expenses in connection with the registration of Registrable Securities on Form S-3.

Registration rights may be transferred to an assignee or transferee provided that such assignee or transferee acquires at least 66,667 shares of the Registrable Securities held by the transferring holder (13,333 shares in the case of a transfer from the holder of certain stock options). These registration rights may be amended or waived (either generally or in a particular instance) only with the written consent of the Company and the holders of a majority of the Registrable Securities then outstanding.

The registration rights granted under the Investors Agreement shall not be exercisable by a holder during the period in which the holder may sell all of the holder's shares under Rule 144 or Rule 144A during a single 90-day period.

Pursuant to the Stock Purchase Agreement dated October 22, 1993 by and between Cobe and the Company (the "Cobe Stock Agreement"), the Company granted to Cobe certain stock registration rights for any and all of the Company's Common Stock which Cobe acquires by conversion or otherwise. Cobe's stock registration rights commence 30 months following an initial public offering, or earlier in the event of any termination of the Distribution Agreement. Pursuant to Cobe's registration rights, Cobe is entitled to two demand registration rights, and an unlimited number of piggyback registration rights. Cobe's stock registration rights are subject to

customary underwriter's "cut back" requirements. The registration rights granted to Cobe shall not be exercisable during the period in which Cobe has the ability to sell all of its shares pursuant to Rule 144 during a single ninety-day period. Subject to certain conditions, these registration rights may be transferred with the transfer of stock to certain affiliates of the transferor or to a transferee who acquires the greater of 66,667 shares or 20% of the transferor's registrable stock.

RIGHTS OF COBE

Pursuant to the Cobe Stock Agreement, Cobe purchased an aggregate of $10,000,000 of shares of the Company's Series C Preferred Stock. Such shares of Series C Preferred Stock will automatically convert into 1,666,666 shares of Common Stock upon the closing of this offering.

Pursuant to the Cobe Stock Agreement, Cobe also has certain preemptive rights to purchase a portion of any new stock issued by the Company, subject to certain exceptions, so as to enable Cobe to maintain its relative percentage ownership and voting power interests in the Company. Pursuant to such preemptive rights, Cobe has elected to purchase $5,000,000 of Common Stock in this offering at the initial public offering price per share. Under the terms of the Cobe Stock Agreement, the Company also has the right to require Cobe to purchase stock issued by the Company in certain qualifying offerings, under certain circumstances (the "Put Option"). The Put Option may generally require Cobe to purchase up to 25% of the stock issued by the Company in a qualifying offering upon the same terms and conditions as the underwriters or other purchasers participating in the offering provided that Cobe shall not be required to purchase stock having an aggregate purchase price of more than $5,000,000. If the Company exercises the Put Option with respect to any such qualifying offering, Cobe has the option to purchase the greater of up to 40% of the number of shares to be offered in the qualifying offering or the number of shares necessary to maintain its percentage ownership interest in the Company. The Company has elected not to exercise the Put Option with respect to this offering.

Additionally, for a three-year period following the Company's completion of its initial public offering of stock, Cobe will have an option to purchase from the Company a quantity of new shares of the Company's Common Stock at a price equal to 120% of the public market trading price for the Company's Common Stock. The quantity of Common Stock to be purchased if Cobe exercises this option shall be equal to 30% of the Company's fully diluted shares after the exercise of this option.

In the Cobe Stock Agreement, the Company also granted to Cobe a "right of first negotiation" in the event the Company receives any proposal concerning, or otherwise decides to pursue, a merger, consolidation or other transaction in which all or a majority of the Company's equity securities or all or substantially all of the Company's assets, or any material portion of the assets of the Company used by the Company in performing its obligations under the Distribution Agreement would be acquired by a third party outside of the ordinary course of business.

Pursuant to the Stock Purchase Commitment Agreement with Cobe, dated October 29, 1996, the Company agreed to use reasonable and good faith efforts to cause a nominee of Cobe, who must be deemed by the Board of Directors to be qualified to be elected to the Board of Directors for as long as Cobe owns at least 15% of the outstanding Common Stock.

SHARES ELIGIBLE FOR FUTURE SALE

Upon completion of this offering, the Company will have 13,235,734 shares of Common Stock outstanding, assuming no exercise of any outstanding options under any of the Company's option plans after September 30, 1996. Of these shares, the 3,250,000 shares of Common Stock sold in this offering will be freely transferable without restriction under the Securities Act unless they are held by the Company's affiliates as that term is used in Rule 144 under the Securities Act.

The remaining 9,985,734 shares of Common Stock outstanding are "restricted securities" as the term is defined by Rule 144 promulgated under the Securities Act (the "Restricted Shares"). Of the 9,985,734 Restricted Shares, 6,996,920 shares may be sold under Rule 144, subject in some cases to certain volume restrictions and other conditions imposed thereby. An additional 152,056 shares will become eligible for sale 90 days after completion of this offering pursuant to Rule 144 and 701. The remaining 2,836,758 shares will be eligible for sale upon the expiration of their respective holding periods as set forth in Rule 144. The Securities and Exchange Commission has proposed certain amendments to Rule 144 that would reduce by one year the holding periods required for shares subject to Rule 144 to become eligible for resale in the public market. This proposal, if adopted, would permit earlier resale of shares of Common Stock currently subject to holding periods under Rule 144. No assurance can be given concerning whether or when the proposal will be adopted by the Securities and Exchange Commission. Furthermore, 9,947,757 of the Restricted Shares are subject to lock-up agreements expiring 180 days following the date of this Prospectus. Such agreements provide that Cowen & Company may, in its sole discretion and at any time without notice, release all or a portion of the shares subject to these lock-up agreements. Upon the expiration of the lock-up agreements, 7,148,976 of the 9,985,734 Restricted Shares may be sold pursuant to Rule 144 or 701, subject in some cases to certain volume restrictions imposed thereby. Certain existing shareholders have rights to include shares of Common Stock owned by them in future registrations by the Company for the sale of Common Stock or to request that the Company register their shares under the Securities Act. See "Description of Capital Stock--Registration Rights." Following the date of this Prospectus, the Company intends to register on one or more registration statements on Form S-8 approximately 1,837,160 shares of Common Stock issuable under its stock option and stock purchase plan. Of the 1,837,160 shares issuable under the Company's stock option and stock purchase plans, 336,254 shares are subject to outstanding options as of September 30, 1996, all of which shares are subject to lock-up agreements. Shares covered by such registration statements will immediately be eligible for sale in the public market upon the filing of such registration statements. The Company also has issued warrants to purchase 69,444 shares of Common Stock which become exercisable 90 days after the closing of this offering and, upon the effective date of this offering, will grant an immediately exercisable option to purchase 333,333 shares of Common Stock. The shares issuable upon exercise of such warrants and the shares issuable upon exercise of such option will be subject to lock-up agreements. In addition, Cobe has agreed to purchase $5,000,000 of Common Stock in this offering at the initial public offering price per share, all of which shares will be subject to a lock-up agreement.

In general, under Rule 144, a person (or persons whose shares are aggregated), shareholders, including an affiliate, who has beneficially owned shares for at least two years is entitled to sell in broker transactions, within any three-month period, commencing 90 days after this offering, a number of shares that does not exceed the greater of (i) 1% of the then outstanding Common Stock (approximately 132,357 shares immediately after this offering assuming no exercise of the Underwriters' over-allotment option) or (ii) the average weekly trading volume in the Common Stock during the four calendar weeks preceding the sale, subject to the filing of a Form 144 with respect to the sale and other limitations. In general, shares issued in compliance with Rule 701 may be sold by non-affiliates subject to the manner of sale requirements of Rule 144, but without compliance with the other requirements of Rule 144. Affiliates may sell shares they acquired under Rule 701 in compliance with the provisions of Rule 144, except that there is no required holding period. A person who is not an affiliate, has not been an affiliate within three months prior to sale and has beneficially owned the Restricted Shares for at least three years, is entitled to sell such shares under Rule 144 without regard to any of the limitations described above.

The Company has also agreed not to offer, sell, contract to sell or otherwise dispose of any shares of Common Stock or any securities convertible into or exercisable or exchangeable for Common Stock or any rights to acquire Common Stock for a period of 180 days after the date of this Prospectus, without the prior written consent of the Underwriters, subject to certain limited exceptions (including exercises of stock options).

Prior to this offering, there has been no public market for the Common Stock of the Company. No prediction can be made regarding the effect, if any, that the sale or availability for sale of shares of additional Common Stock will have on the market price of the Common Stock. Nevertheless, sales of substantial numbers of shares by existings shareholders or by shareholders purchasing in their offering could have a negative effect on the market price of the Common Stock.

UNDERWRITING

Subject to the terms and conditions of the Underwriting Agreement, the Underwriters named below (the "Underwriters"), through their Representatives, Cowen & Company and J.P. Morgan Securities Inc., have severally agreed to purchase from the Company the following respective number of shares of Common Stock at the initial public offering price less the underwriting discounts and commissions set forth on the cover page of this Prospectus:

UNDERWRITER	NUMBER OF SHARES OF COMMON STOCK
Cowen & Company	
J.P. Morgan Securities Inc.	
Total	3,250,000

The Underwriting Agreement provides that the obligations of the Underwriters are subject to certain conditions precedent and that the Underwriters will purchase all of the Common Stock offered hereby if any of such shares are purchased.

The Company has been advised by the Representatives of the Underwriters that the Underwriters propose to offer the shares of Common Stock to the public at the initial public offering price set forth on the cover page of this Prospectus and to certain dealers at such price less a concession not in excess of $ per share. The Underwriters may allow, and such dealers may reallot, a concession not in excess of $ per share to certain other dealers. After the initial public offering, the offering price and other selling terms may be changed by the Representatives of the Underwriters.

The Company has granted to the Underwriters an option, exercisable not later than 30 days after the date of this Prospectus, to purchase up to 487,500 additional shares of Common Stock at the initial public offering price less the underwriting discounts and commissions set forth on the cover page of this Prospectus. To the extent that the Underwriters exercise such option, each of the Underwriters will have a firm commitment to purchase approximately the same percentage thereof that the number of shares of Common Stock to be purchased by it shown in the above table bears to 3,250,000, and the Company will be obligated, pursuant to the option, to sell such shares to the Underwriters. The Underwriters may exercise such option only to cover over-allotments made in connection with the sale of the Common Stock offered hereby. If purchased, the Underwriters will offer such additional shares on the same terms as those on which the 3,250,000 shares are being offered.

As part of this offering, Cobe has agreed with the Company to purchase from the Underwriters $5,000,000 of Common Stock at the initial public offering price per share.

The Company has agreed to indemnify the several Underwriters against certain liabilities, including liabilities under the Securities Act.

The Company and its directors and officers, and certain of its other shareholders and optionholders, have entered into agreements providing that, for a period of 180 days after the date of this Prospectus, they will not, without the prior written consent of Cowen & Company, offer, sell, contract to sell or otherwise dispose of any shares of Common Stock or any securities convertible into, or exchangeable for, or warrants to purchase, any shares of Common Stock, or grant any option to purchase or right to acquire or acquire any option to dispose of any shares of Common Stock, except in certain limited circumstances. See "Shares Eligible for Future Sale."

The Representatives of the Underwriters have advised the Company that the Underwriters do not intend to confirm sales to any account over which they exercise discretionary authority.

Prior to this offering, there has been no public market for the Common Stock of the Company. Consequently, the initial public offering price for the Common Stock has been determined by negotiations between the Company and the Representatives of the Underwriters. Among the factors considered in such negotiations were prevailing market conditions, the results of operations of the Company in recent periods, the market capitalizations and stages of development of other companies that the Company and the Representatives of the Underwriters believe to be comparable to the Company, estimates of the business potential of the Company, the present state of the Company's development, and other factors deemed relevant.

TRANSFER AGENT AND REGISTRAR

The Transfer Agent and Registrar for the Common Stock is Continental Stock Transfer & Trust Company. Its telephone number in New York, New York is (212) 509-4000.

LEGAL MATTERS

The validity of the Common Stock offered hereby will be passed upon for the Company by Pepper, Hamilton & Scheetz, Detroit, Michigan. Michael B. Staebler, a partner at Pepper, Hamilton & Scheetz, is the beneficial owner of 3,333 shares of Common Stock. Gray Cary Ware & Freidenrich, A Professional Corporation, San Diego, California, has acted as special counsel to the Company in connection with the offering. Certain legal matters in connection with this offering will be passed upon for the Underwriters by Brobeck, Phleger & Harrison LLP, New York, New York.

EXPERTS

The balance sheets of the Company as of June 30, 1995 and 1996, and the statements of operations, shareholders' equity, and cash flows for the years ended June 30, 1994, 1995 and 1996 and the cumulative period from March 24, 1989 (Inception) to June 30, 1996 included in this Prospectus, have been included herein in reliance on the report of Coopers & Lybrand L.L.P., independent accountants, given upon the authority of that firm as experts in accounting and auditing.

The statements in this Prospectus concerning the patents and patent applications either owned or licensed by the Company under the captions "Risk Factors--Uncertainty Regarding Patents and Proprietary Rights" and "Business--Patents and Proprietary Rights" and the other references herein concerning the patents and patent applications either owned or licensed by the Company have been reviewed and approved by Oblon, Spivak, McClelland, Maier & Neustadt, P.C., Arlington, Virginia, patent counsel to the Company, as experts on such matters, and are included herein in reliance upon that review and approval.

ADDITIONAL INFORMATION

The Company has filed with the Securities and Exchange Commission, Washington, D.C. 20549, a Registration Statement on Form S-1 under the Securities Act of 1933, as amended, with respect to the Common Stock offered hereby. This Prospectus does not contain all of the information set forth in the Registration Statement and the exhibits and schedules thereto. For further information with respect to the Company and the Common Stock, reference is made to the Registration Statement and the exhibits and schedules filed as a part thereof. Statements contained in this Prospectus as to the contents of any contract or any other document referred to are not necessarily complete, and, in each instance, if such contract or document is filed as an exhibit, reference is made to the copy of such contract or document filed as an exhibit to the Registration Statement, each such statement being qualified in all respects by such reference to such exhibit. The Registration Statement, including exhibits and schedules thereto, may be inspected without charge at the Commission's principal office in Washington, D.C., and copies of all or any part thereof may be obtained from such office after payment of fees prescribed by the Commission.

The Company intends to furnish to its shareholders annual reports containing financial statements audited by its independent certified public accountants and make available to its shareholders quarterly reports containing unaudited financial data for the first three quarters of each fiscal year.

AASTROM BIOSCIENCES, INC.
(A DEVELOPMENT STAGE COMPANY)

INDEX TO FINANCIAL STATEMENTS

REPORT OF INDEPENDENT ACCOUNTANTS

To the Board of Directors of
Aastrom Biosciences, Inc.:

We have audited the accompanying balance sheets of Aastrom Biosciences, Inc. (a Michigan corporation in the development stage) as of June 30, 1995 and 1996, and the related statements of operations, stockholders' equity, and cash flows for the years ended June 30, 1994, 1995 and 1996, and the cumulative period from March 24, 1989 (inception) to June 30, 1996. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

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

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Aastrom Biosciences, Inc. as of June 30, 1995 and 1996, and the results of its operations and its cash flows for the years ended June 30, 1994, 1995 and 1996, and the cumulative period from March 24, 1989 (inception) to June 30, 1996, in conformity with generally accepted accounting principles.

Detroit, Michigan
August 9, 1996

To the Board of Directors of
Aastrom Biosciences, Inc.:

The financial statements herein have been adjusted to give effect to the 2 for 3 reverse stock split of the Company's outstanding Common Shares as described more fully in Note 1 to the financial statements. The above report is in the form that will be signed by Coopers & Lybrand L.L.P. upon the effectiveness of such split assuming that, from October 31, 1996 to the effective date of such split, no other events shall have occurred that would affect the accompanying financial statements or notes thereto.

Coopers & Lybrand L.L.P.

Detroit, Michigan
October 31, 1996

AASTROM BIOSCIENCES, INC.
(A DEVELOPMENT STAGE COMPANY)

BALANCE SHEETS

	JUNE 30,		SEPTEMBER 30,	PRO FORMA SHAREHOLDERS' EQUITY AT SEPTEMBER 30,
	1995	1996	1996	1996
			(UNAUDITED)	(UNAUDITED)
ASSETS				
CURRENT ASSETS:				
Cash and cash equivalents	$ 2,680,000	$10,967,000	$ 5,908,000	
Short-term investments	8,388,000	--	1,200,000	
Receivables	99,000	81,000	220,000	
Prepaid expenses	105,000	437,000	378,000	
Total current assets	11,272,000	11,485,000	7,706,000	
PROPERTY, NET	1,279,000	1,188,000	1,225,000	
Total assets	$ 12,551,000	$12,673,000	$ 8,931,000	
LIABILITIES AND SHAREHOLDER'S EQUITY				
CURRENT LIABILITIES:				
Accounts payable and accrued expenses	$ 328,000	$ 1,192,000	$ 841,000	
Accrued employee expenses	130,000	97,000	80,000	
Current portion of capital lease obligations	270,000	223,000	192,000	
Deferred revenue	225,000	122,000	53,000	
Total current liabilities	953,000	1,634,000	1,166,000	
CAPITAL LEASE OBLIGATIONS	412,000	189,000	147,000	
COMMITMENTS (Note 7)				
SHAREHOLDERS' EQUITY:				
Preferred Stock, no par value, shares authorized--8,540,000, 9,951,765 and 10,157,647, respectively, issued and outstanding--8,040,001, 9,451,766 and 9,657,648, respectively (none--pro forma), (liquidation preference of $34,560,000 and $35,375,000 at June 30, 1996 and September 30, 1996, respectively)	28,253,000	34,218,000	37,718,000	$ --
Common Stock, no par value, shares authorized--17,000,000, 18,500,000 and 18,500,000, respectively, issued and outstanding--1,731,463, 1,886,479 and 1,887,312, respectively (9,985,734--pro forma)	241,000	324,000	365,000	38,083,000
Deficit accumulated during the development stage	(17,108,000)	(27,025,000)	(30,298,000)	(30,298,000)
Shareholder notes receivable	(198,000)	(167,000)	(167,000)	(167,000)
Stock purchase rights	--	3,500,000	--	--
Unrealized losses on investments	(2,000)	--	--	--
Total shareholders' equity	11,186,000	10,850,000	7,618,000	$ 7,618,000
Total liabilities and shareholders' equity	$ 12,551,000	$12,673,000	$ 8,931,000	

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

AASTROM BIOSCIENCES, INC.
(A DEVELOPMENT STAGE COMPANY)

STATEMENTS OF OPERATIONS

	YEAR ENDED JUNE 30,			MARCH 24, 1989 (INCEPTION) TO JUNE 30,	THREE MONTHS ENDED SEPTEMBER 30,		MARCH 24, 1989 (INCEPTION) TO SEPTEMBER 30,
	1994	1995	1996	1996	1995	1996	1996
					(UNAUDITED)		(UNAUDITED)
REVENUES:							
Research and development agreements	$ 49,000	$ 396,000	$ 1,342,000	$ 1,787,000	$ 172,000	$ 195,000	$ 1,982,000
Grants	823,000	121,000	267,000	1,995,000	39,000	29,000	2,024,000
Total revenues	872,000	517,000	1,609,000	3,782,000	211,000	224,000	4,006,000
COSTS AND EXPENSES:							
Research and development	5,627,000	4,889,000	10,075,000	25,075,000	1,195,000	3,160,000	28,235,000
General and administrative	1,565,000	1,558,000	2,067,000	7,089,000	446,000	452,000	7,541,000
Total costs and expenses	7,192,000	6,447,000	12,142,000	32,164,000	1,641,000	3,612,000	35,776,000
LOSS BEFORE OTHER INCOME AND EXPENSE	(6,320,000)	(5,930,000)	(10,533,000)	(28,382,000)	(1,430,000)	(3,388,000)	(31,770,000)
OTHER INCOME (EXPENSE):							
Interest income	245,000	279,000	678,000	1,576,000	149,000	126,000	1,702,000
Interest expense	(65,000)	(66,000)	(62,000)	(219,000)	(18,000)	(11,000)	(230,000)
Other income	180,000	213,000	616,000	1,357,000	131,000	115,000	1,472,000
NET LOSS	$(6,140,000)	$(5,717,000)	$ (9,917,000)	$(27,025,000)	$(1,299,000)	$(3,273,000)	$(30,298,000)
PRO FORMA NET LOSS PER SHARE	$ (.82)	$ (.66)	$ (.98)		$ (.13)	$ (.32)	
Pro forma weighted average number of common and common equivalent shares outstanding	7,461,000	8,644,000	10,103,000		10,094,000	10,107,000	

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

AASTROM BIOSCIENCES, INC.

(A DEVELOPMENT STAGE COMPANY)

STATEMENTS OF SHAREHOLDERS' EQUITY

	PREFERRED STOCK		COMMON STOCK		DEFICIT ACCUMULATED DURING THE DEVELOPMENT STAGE	SHAREHOLDER NOTES RECEIVABLE	STOCK PURCHASE RIGHTS	UNREALIZED GAINS (LOSSES) ON INVESTMENTS
	SHARES	AMOUNT	SHARES	AMOUNT				
Balance, March 24, 1989 (Inception)....	--	$ --	--	$ --	$ --	$ --	$ --	$ --
Non-cash issuance of Common Stock...			454,545	--				
Issuance of Series A Preferred Stock at $1.00 per share in August 1989.....	1,500,000	1,500,000						
Net loss.....					(500,000)			
Balance, June 30, 1990.....	1,500,000	1,500,000	454,545	--	(500,000)	--	--	--
Issuance of Series A Preferred Stock in March 1991 at $1.00 per share, net of issuance costs of $5,000.....	1,000,000	995,000						
Net loss.....					(636,000)			
Balance, June 30, 1991.....	2,500,000	2,495,000	454,545	--	(1,136,000)	--	--	--
Issuance of Series B Preferred Stock in April 1992 at $2.00 per share, net of issuance costs of $46,000.....	3,030,000	6,014,000						
Net loss.....					(1,268,000)			
Balance, June 30, 1992.....	5,530,000	8,509,000	454,545	--	(2,404,000)	--	--	--
Issuance of Common Stock for services...			33,333	10,000				
Exercise of stock option...			6,873	1,000				
Net loss.....					(2,847,000)			
Balance, June 30, 1993.....	5,530,000	8,509,000	494,751	11,000	(5,251,000)	--	--	--
Issuance of Series C Preferred Stock in October 1993 at $1,000 per share, net of issuance costs of $175,000....	10,000	9,825,000						
Exercise of stock options..			1,222,609	229,000		(198,000)		
Net loss.....					(6,140,000)			
Balance, June 30, 1994.....	5,540,000	18,334,000	1,717,360	240,000	(11,391,000)	(198,000)	--	--
Issuance of Series D Preferred Stock in April and May 1995 at $4.00 per share, net of issuance costs of $81,000.....	2,500,001	9,919,000						
Exercise of stock options..			39,103	8,000				
Retirement of Common Stock outstanding....			(25,000)	(7,000)				
Unrealized loss on investments.								(2,000)
Net loss.....					(5,717,000)			
Balance, June								

30, 1995.....	8,040,001	28,253,000	1,731,463	241,000	(17,108,000)	(198,000)	--	(2,000)
Issuance of Series E Preferred Stock in January 1996 at $4.25 per share, net of issuance costs of $35,000.....	1,411,765	5,965,000						
Exercise of stock options..			130,016	53,000				
Issuance of Common Stock at $1.20 per share.....			25,000	30,000				
Issuance of Stock Purchase Rights for cash in September 1995 and March 1996.....							3,500,000	
Repurchase of Series D Preferred Stock at $4.00 per share.....	(62,500)	(250,000)						
Sale of Series D Preferred Stock at $4.00 per share.....	62,500	250,000						
Principal payment received under shareholder note receivable.....						31,000		
Unrealized gain on investments.								2,000
Net loss.....					(9,917,000)			
Balance, June 30, 1996.....	9,451,766	34,218,000	1,886,479	324,000	(27,025,000)	(167,000)	3,500,000	--
Unaudited:								
Exercise of stock options..			833	1,000				
Issuance of Series E Preferred Stock to RPR at $17.00 per share.....	205,882	3,500,000					(3,500,000)	
Compensation expense related to stock options granted.....				40,000				
Net loss.....					(3,273,000)			
Balance, September 30, 1996 (Unaudited)....	9,657,648	$37,718,000	1,887,312	$365,000	$(30,298,000)	$(167,000)	$ --	$ --

	TOTAL SHAREHOLDERS' EQUITY
Balance, March 24, 1989 (Inception)....	$ --
Non-cash issuance of Common Stock...	--
Issuance of Series A Preferred Stock at $1.00 per share in August 1989.....	1,500,000
Net loss.....	(500,000)
Balance, June 30, 1990.....	1,000,000
Issuance of Series A Preferred Stock in March 1991 at $1.00 per share, net of issuance costs of $5,000.....	995,000
Net loss.....	(636,000)
Balance, June 30, 1991.....	1,359,000
Issuance of Series B Preferred Stock	

in April 1992 at $2.00 per share, net of issuance costs of $46,000.....	6,014,000
Net loss.....	(1,268,000)
Balance, June 30, 1992.....	6,105,000
Issuance of Common Stock for services...	10,000
Exercise of stock option...	1,000
Net loss.....	(2,847,000)
Balance, June 30, 1993.....	3,269,000
Issuance of Series C Preferred Stock in October 1993 at $1,000 per share, net of issuance costs of $175,000....	9,825,000
Exercise of stock options..	31,000
Net loss.....	(6,140,000)
Balance, June 30, 1994.....	6,985,000
Issuance of Series D Preferred Stock in April and May 1995 at $4.00 per share, net of issuance costs of $81,000.....	9,919,000
Exercise of stock options..	8,000
Retirement of Common Stock outstanding....	(7,000)
Unrealized loss on investments.	(2,000)
Net loss.....	(5,717,000)
Balance, June 30, 1995.....	11,186,000
Issuance of Series E Preferred Stock in January 1996 at $4.25 per share, net of issuance costs of $35,000.....	5,965,000
Exercise of stock options..	53,000
Issuance of Common Stock at $1.20 per share.....	30,000
Issuance of Stock Purchase Rights for cash in September 1995 and March 1996.....	3,500,000
Repurchase of Series D Preferred Stock at $4.00 per share.....	(250,000)
Sale of Series D Preferred Stock at $4.00 per share.....	250,000
Principal payment received under shareholder note receivable.....	31,000
Unrealized gain on investments.	2,000
Net loss.....	(9,917,000)
Balance, June 30, 1996.....	10,850,000
Unaudited:	
Exercise of stock options..	1,000
Issuance of Series E Preferred Stock to RPR at	

$17.00 per share.....	--
Compensation expense related to stock options granted.....	40,000
Net loss.....	(3,273,000)
Balance, September 30, 1996 (Unaudited)....	$7,618,000

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

AASTROM BIOSCIENCES, INC.

(A DEVELOPMENT STAGE COMPANY)

STATEMENTS OF CASH FLOWS

	YEAR ENDED JUNE 30,			MARCH 24, 1989 (INCEPTION) TO JUNE 30,	THREE MONTHS ENDED SEPTEMBER 30,		MARCH 24, 1989 (INCEPTION) TO SEPTEMBER 30,
	1994	1995	1996	1996	1995	1996	1996
					(UNAUDITED)		(UNAUDITED)
OPERATING ACTIVITIES:							
Net loss	$(6,140,000)	$(5,717,000)	$(9,917,000)	$(27,025,000)	$(1,299,000)	$(3,273,000)	$(30,298,000)
Adjustments to reconcile net loss to net cash used for operating activities:							
Depreciation and amortization	248,000	329,000	536,000	1,267,000	91,000	136,000	1,403,000
Loss on property held for resale	--	--	--	110,000	--	--	110,000
Amortization of discounts and premiums on investments	--	(9,000)	(110,000)	(119,000)	(48,000)	--	(119,000)
Expense related to stock and stock options granted	--	--	--	10,000	--	40,000	50,000
Changes in assets and liabilities:							
Receivables	11,000	132,000	18,000	(81,000)	4,000	(139,000)	(220,000)
Prepaid expenses	(17,000)	(59,000)	(332,000)	(437,000)	27,000	59,000	(378,000)
Accounts payable and accrued expenses	(45,000)	(40,000)	864,000	1,192,000	(35,000)	(351,000)	841,000
Accrued employee expenses	53,000	28,000	(33,000)	97,000	(58,000)	(17,000)	80,000
Deferred revenue	146,000	79,000	(103,000)	122,000	(172,000)	(69,000)	53,000
Net cash used for operating activities	(5,744,000)	(5,257,000)	(9,077,000)	(24,864,000)	(1,490,000)	(3,614,000)	(28,478,000)
INVESTING ACTIVITIES:							
Organizational costs	--	--	--	(73,000)	--	--	(73,000)
Purchase of short-term investments	(967,000)	(10,981,000)	--	(11,948,000)	--	(1,200,000)	(13,148,000)
Maturities of short-term investments	--	3,567,000	8,500,000	12,067,000	2,500,000	--	12,067,000
Capital purchases	(320,000)	(118,000)	(445,000)	(1,718,000)	(15,000)	(173,000)	(1,891,000)
Proceeds from sale of property held for resale	--	--	--	400,000	--	--	400,000
Net cash provided by (used for) investing activities	(1,287,000)	(7,532,000)	8,055,000	(1,272,000)	2,485,000	(1,373,000)	(2,645,000)
FINANCING ACTIVITIES:							
Issuance of Preferred Stock	9,825,000	9,919,000	5,965,000	34,218,000	--	--	34,218,000
Issuance of Common Stock	31,000	1,000	83,000	116,000	3,000	1,000	117,000
Payments received for stock purchase rights	--	--	3,500,000	3,500,000	1,500,000	--	3,500,000
Payments received under shareholder notes	--	--	31,000	31,000	--	--	31,000
Principal payments under capital lease obligations	(147,000)	(214,000)	(270,000)	(762,000)	(65,000)	(73,000)	(835,000)
Net cash provided by (used for) financing activities	9,709,000	9,706,000	9,309,000	37,103,000	1,438,000	(72,000)	37,031,000
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	2,678,000	(3,083,000)	8,287,000	10,967,000	2,433,000	(5,059,000)	5,908,000
CASH AND CASH EQUIVALENTS AT BEGINNING OF PERIOD	3,085,000	5,763,000	2,680,000	--	2,680,000	10,967,000	--
CASH AND CASH EQUIVALENTS AT END OF PERIOD	$ 5,763,000	$ 2,680,000	$10,967,000	$ 10,967,000	$ 5,113,000	$ 5,908,000	$ 5,908,000
SUPPLEMENTAL DISCLOSURES OF CASH FLOW INFORMATION:							
Interest paid	$ 65,000	$ 66,000	$ 62,000	$ 219,000	$ 18,000	$ 11,000	$ 230,000
SUPPLEMENTAL DISCLOSURES OF NON-CASH INVESTING AND FINANCING							

ACTIVITIES:							
Additions to capital lease obligations.....	$ 348,000	$ 270,000	$ --	$ 1,174,000	$ --	$ --	$ 1,174,000

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

AASTROM BIOSCIENCES, INC.
(A DEVELOPMENT STAGE COMPANY)

NOTES TO FINANCIAL STATEMENTS

(INFORMATION AS OF SEPTEMBER 30, 1996 AND FOR THE THREE-MONTH PERIODS ENDED SEPTEMBER 30, 1995 AND 1996 IS UNAUDITED)

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Overview--Aastrom Biosciences, Inc. (the "Company") was incorporated in March 1989 ("Inception") under the name Ann Arbor Stromal, Inc. The Company changed its name in 1991 concurrent with the commencement of employee-based operations. The Company is in the development stage with its principal business activities being research and product development, conducted both on its own behalf and in connection with various collaborative research and development agreements with other companies, involving the development of processes and instrumentation for the ex-vivo production of human stem cells and their progeny, and hematopoetic and other tissues. Successful future operations are subject to several technical and business risks, including satisfactory product development and obtaining regulatory approval and market acceptance for its products.

Significant Revenue Relationships--Two companies accounted for 49% and 28% of total revenues for the year ended June 30, 1995 and one company accounted for 83% of total revenues for the year ended June 30, 1996. One of these companies accounted for 42% of total revenues for the period from Inception to June 30, 1996. One company accounted for 82% and 87% of total revenues for the three months ended September 30, 1995 and 1996, respectively, and accounted for 45% of total revenues for the period from Inception to September 30, 1996. Grant revenues consist of grants sponsored by the U.S. government.

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 but less than one year. Short-term investments are classified as available-for-sale, and are carried at market value, in accordance with Financial Accounting Standards Board Statement No. 115, "Accounting for Certain Investments in Debt and Equity Securities," which was adopted July 1, 1994. Application of this pronouncement results in the inclusion of unrealized gains and losses on investments in shareholders' equity. Application of this accounting treatment in prior periods would not have materially changed the amounts as presented.

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. The Company plans to continue to invest its excess funds in short-term, investment grade, interest-bearing instruments. These guidelines are periodically reviewed and modified to take advantage of trends in yields and interest rates. The Company has not experienced any significant losses on its cash equivalents or short-term investments.

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

Revenue Recognition--Revenue from grants and research agreements is recognized on a cost reimbursement basis consistent with the performance requirements of the related agreement. Funding received in advance of costs incurred is presented as deferred revenue in the accompanying financial statements.

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 $49,000, $146,000 and $1,294,000 for the years ended June 30, 1994, 1995 and 1996, respectively, and $1,489,000 for the period from Inception to June 30, 1996 and $158,000, $117,000 and $1,606,000 for the three months ended September 30, 1995 and 1996 and for the period from Inception to September 30, 1996, respectively.

Restatement of Common Stock Information--The Company's Board of Directors authorized a two-for-three reverse stock split of the Company's Common Stock ("Reverse Stock Split") to be effected prior to the closing of the proposed IPO. Accordingly, all references in the accompanying financial statements to common share or per common share information have been restated to reflect the Reverse Stock Split.

Pro Forma Information (Unaudited)--Pro forma net loss per share is computed using the weighted average number of common and common equivalent 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, except that common and common equivalent shares issued during the 12 month period preceding the filing of the registration statement for the proposed initial public offering ("IPO"), contemplated in the Prospectus in which these financial statements are included, at a price below $8.00 per share (the lowest expected selling price in the proposed IPO) are considered to be cheap stock and have been included in the calculation as if they were outstanding for all periods using the treasury stock method, if applicable, even though their inclusion is anti-dilutive. Upon the completion of the Company's proposed IPO, all 9,657,648 shares of the Company's outstanding Preferred Stock will automatically convert into 8,098,422 shares of Common Stock. As a result, all outstanding shares of Preferred Stock are assumed to have been converted to Common Stock at the time of issuance, except for those shares considered to be cheap stock which are treated as outstanding for all periods presented. The pro forma effect of these conversions has been reflected in the accompanying balance sheet assuming the conversion had occurred on September 30, 1996.

Historical net loss per share information is not considered meaningful due to the significant changes in the Company's capital structure which will occur upon the closing of the proposed IPO; accordingly, such per-share data information is not presented.

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--Management evaluates the fair value of those assets and liabilities identified as financial instruments under Statement of Financial Accounting Standards No. 107 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.

Recent Pronouncements--During October 1995, the Financial Accounting Standards Board issued Statement No. 123, "Accounting for Stock-Based Compensation," which establishes a fair value based method of accounting for stock-based compensation and incentive plans and requires additional disclosures for those companies that elect not to adopt the new method of accounting. Adoption of this pronouncement is required for the Company's fiscal year beginning July 1, 1996 and the Company intends to provide the additional disclosures required by the pronouncement in its financial statements for the year ended June 30, 1997.

During March 1995, the Financial Accounting Standards Board issued Statement No. 121 (SFAS 121), "Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of," which requires the Company to review for impairment of long-lived assets, certain identifiable intangibles, and goodwill related to those assets whenever events or changes in circumstances indicate that the carrying amount of an asset

might not be recoverable. In certain situations, an impairment loss would be recognized. SFAS 121 will become effective for the Company's fiscal year beginning July 1, 1996. Management has studied the effect of implementing SFAS 121 and, based upon its evaluation, has determined that the impact on the Company's financial condition and results of operations is not significant for the period ended September 30, 1996.

Unaudited Financial Information--The financial information as of September 30, 1996, and for the three-month periods ended September 30, 1995 and 1996, and for the period from Inception to September 30, 1996, is unaudited. In the opinion of management, such information contains all adjustments, consisting only of normal recurring accruals, necessary for a fair statement of the results of operations for the interim periods. The results of operations for the three months ended September 30, 1996, are not necessarily indicative of the results to be expected for the full year or for any other period.

2. SHORT-TERM INVESTMENTS

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

	COST	GROSS UNREALIZED GAINS	GROSS UNREALIZED LOSSES	ESTIMATED FAIR VALUE
June 30, 1995:				
U.S. Government Securities	$4,890,000	$ --	$ (2,000)	$4,888,000
Commercial Paper	3,500,000	--	--	3,500,000
	$8,390,000	$ --	$ (2,000)	$8,388,000

	COST	GROSS UNREALIZED GAINS	GROSS UNREALIZED LOSSES	ESTIMATED FAIR VALUE
September 30, 1996 (Unaudited):				
U.S. Government Securities	$1,200,000	$ --	$ --	$1,200,000

3. PROPERTY

Property consists of the following:

	JUNE 30, 1995	JUNE 30, 1996	SEPTEMBER 30, 1996 (UNAUDITED)
Machinery and equipment	$1,140,000	$1,337,000	$1,341,000
Office equipment	405,000	482,000	604,000
Leasehold improvements	380,000	520,000	567,000
	1,925,000	2,339,000	2,512,000
Less accumulated depreciation and amortization	(646,000)	(1,151,000)	(1,287,000)
	$1,279,000	$1,188,000	$1,225,000

Equipment under capital leases totaled $1,162,000, $1,131,000 and $1,131,000 at June 30, 1995 and 1996 and September 30, 1996, respectively, with related accumulated amortization of $407,000, $622,000 and $679,000, respectively (Note 7).

(INFORMATION AS OF SEPTEMBER 30, 1996 AND FOR THE THREE-MONTH PERIODS ENDED SEPTEMBER 30, 1995 AND 1996 IS UNAUDITED)

4. SHAREHOLDERS' EQUITY:

Preferred Stock--The Company has the following outstanding Preferred Stock:

	SHARES AUTHORIZED	SHARES ISSUED AND OUTSTANDING			LIQUIDATION PREFERENCE AT	
	SEPTEMBER 30, 1996	JUNE 30, 1995	JUNE 30, 1996	SEPTEMBER 30, 1996	JUNE 30, 1996	SEPTEMBER 30, 1996
	(Unaudited)			(Unaudited)		(Unaudited)
Series A	2,500,000	2,500,000	2,500,000	2,500,000	$ 2,500,000	$ 2,500,000
Series B	3,030,000	3,030,000	3,030,000	3,030,000	6,060,000	6,000,000
Series C	10,000	10,000	10,000	10,000	10,000,000	10,000,000
Series D	3,000,000	2,500,001	2,500,001	2,500,001	10,000,000	10,000,000
Series E	1,617,647	--	1,411,765	1,617,647	6,000,000	6,875,000
	10,157,647	8,040,001	9,451,766	9,657,648	$34,560,000	$35,375,000

All preferred shares have voting rights equal to the equivalent number of common shares into which they are convertible. Conversion rights on all outstanding classes of preferred stock are on a two-for-three basis to give effect for the Reverse Stock Split, except for the Series C Preferred Stock, each share of which is convertible into approximately 250 shares of Common Stock. Conversion rights on certain classes of preferred stock are subject to anti-dilution adjustments. Dividends accrue annually at 8% on all series of Preferred Stock, but do not accumulate. No cash dividends have been declared or paid through September 30, 1996. Dividends and liquidation preferences on the Series B, Series C and Series D Preferred Stock are senior to those of the Series A Preferred Stock. Dividends and liquidation preferences on the Series E Preferred Stock are senior to those of all other outstanding series of preferred stock. Conversion of preferred stock is automatic in the event of the closing of an underwritten public stock offering meeting certain minimum requirements such as the offering contemplated by the Prospectus in which these financial statements are included.

Cobe Laboratories, Inc. Stock Purchase Rights--In connection with the purchase of the Series C Preferred Stock by Cobe Laboratories, Inc. ("Cobe") in October 1993, Cobe received a preemptive right to purchase a pro-rata portion of any newly issued shares of stock by the Company in order to maintain its then current percentage ownership interest. Any such purchase of newly issued shares shall be at the net price to the Company after deducting underwriters' discounts and commissions, if any. Cobe has waived its right to such discount on its intended purchase of shares in the proposed IPO. The Company has an option ("Put Option") to require Cobe to purchase the lesser of 20%, or $5,000,000, in an offering of equity securities meeting certain minimum requirements. In the event that the Company exercises the Put Option, Cobe then has the option to purchase up to 40% of that offering.

During the three-year period following the completion of an initial public offering of Common Stock by the Company, Cobe has an option to purchase additional shares from the Company equal to 30% of the total number of shares outstanding assuming exercise of the option. Such option, if exercised, must be exercised in full with the purchase price of the shares being established at 120% of the public market trading price as determined by the 30-day average market price preceding the date of exercise of the option.

The Company has granted Cobe a right of first negotiation in the event the Company receives any proposal concerning, or otherwise decides to pursue, a merger, consolidation or other transaction in which all or a majority

of the Company's equity securities or all or substantially all of the Company's assets, or any material portion of the assets of the Company used by the Company in performing its obligations under the Distribution Agreement (Note 6) would be acquired by a third party outside of the ordinary course of business.

Stock Option Plans--The Company has various stock option plans which provide for the issuance of nonqualified and incentive stock options to acquire up to 2,836,594 shares of Common Stock. Such options may be granted by the Company's Board of Directors to certain of the Company's founders, employees, directors and consultants. The exercise price of incentive stock options shall not be less than the fair market value of the shares on the date of grant. In the case of individuals who are also holders of 10% or more of the outstanding shares of Common Stock, the exercise price of incentive stock options shall not be less than 110% of the fair market value of the shares on the date of grant. The exercise price of non-qualified stock options shall not be less than 85% of the fair market value on the date of grant. Options granted under these plans expire no later than ten years from the date of grant and generally become exercisable ratably over a four-year period following the date of grant.

For certain options granted, the Company recognizes compensation expense for the difference between the deemed value for accounting purposes and the option exercise price on the date of grant. During the three-month period ended September 30, 1996, compensation expense totaling approximately $40,000 has been charged with respect to these options. Additional future compensation expense with respect to the issuance of such options totals approximately $130,000 and will be recognized through October 2000.

The following table summarizes option activity under the Company's stock option plans:

	OPTIONS OUTSTANDING	OPTIONS AVAILABLE FOR GRANT	EXERCISE PRICE PER SHARE
March 24, 1989(Inception)			
Options authorized	--	1,703,261	
Options granted	1,528,778	(1,528,778)	$ .15 - $ .30
Options exercised	(6,873)	--	$ .15 - $ .15
Options canceled	(13,793)	13,793	$ .15 - $ .15
Balance, June 30, 1993	1,508,112	188,276	$ .15 - $ .30
Options granted	198,333	(198,333)	$ .30 - $1.20
Options exercised	(1,222,609)	--	$ .15 - $ .30
Options canceled	(90,171)	90,171	$ .15 - $1.20
Balance, June 30, 1994	393,665	80,114	$ .15 - $1.20
Options authorized	--	333,333	
Options granted	55,333	(55,333)	$ 1.20 - $1.20
Options exercised	(39,103)	--	$ .30 - $ .30
Options canceled	(60,230)	60,230	$ .30 - $1.20
Balance, June 30, 1995	349,665	418,344	$ .15 - $1.20
Options authorized	--	800,000	
Options granted	155,337	(155,337)	$ 1.20 - $3.20
Options exercised	(130,016)	--	$ .15 - $1.20
Options canceled	(44,690)	44,690	$ .30 - $1.20
Balance, June 30, 1996	330,296	1,107,697	$ .30 - $3.20
Unaudited:			
Options granted	13,334	(13,334)	$ 3.20 - $3.20
Options exercised	(833)	--	$ 1.20 - $1.20
Options canceled	(6,543)	6,543	$ 1.20 - $1.20
Balance, September 30, 1996 (Unaudited)	336,254	1,100,906	$ .30 - $3.20
Options Exercisable, June 30, 1996	101,021		$ .30 - $1.20
September 30, 1996 (Unaudited)	122,612		$ .30 - $1.20

Common Shares Reserved--The Company has reserved shares of Common Stock for future issuance as follows:

	JUNE 30, 1996	SEPTEMBER 30, 1996 (Unaudited)
Issuance under 1992 Stock Option Plan	1,437,993	1,437,160
Conversion of preferred stock	7,961,168	8,098,422
	9,399,161	9,535,582

5. FEDERAL INCOME TAXES

Deferred tax assets consist of the following:

	JUNE 30,	
	1995	1996
Net operating loss carryforwards	$ 5,280,000	$ 9,210,000
Tax credits and other	360,000	440,000
Gross deferred tax assets	5,640,000	9,650,000
Deferred tax assets valuation allowance	(5,640,000)	(9,650,000)
	$ --	$ --

Due to the historical losses incurred by the Company, a full valuation allowance for deferred tax assets has been provided. If the Company achieves profitability, these deferred tax assets may be available to offset income taxes. The Company's net operating loss and tax credit carryforwards will expire from 2004 through 2011, if not utilized.

The Company's ability to utilize its net operating loss and tax credit carryforwards would be limited in the event of a future change in ownership for tax purposes. Such a change in ownership may likely occur upon the completion of an initial public offering of the Company's Common Stock.

6. LICENSES, ROYALTIES AND COLLABORATIVE AGREEMENTS

University of Michigan--In March 1989, the Company entered into a research agreement with the University of Michigan (the "University") for the development of an adaptable, high-efficiency blood cell factory and to conduct related research. Under the terms of this research agreement, as amended, the Company agreed to reimburse the University for research costs in this regard through the date of its expiration in December 1994. Payments made to the University under the aforementioned agreements totaled $316,000, $121,000 and $2,521,000 for the years ended June 30, 1994, 1995 and for the period from Inception to June 30, 1996, respectively, which amounts are included in research and development expense in the accompanying Statements of Operations. As part of this relationship, the Company issued to the University 454,545 shares of Common Stock in August 1989. No value has been assigned to these shares in the accompanying financial statements. In March 1992, the Company entered into a license agreement for the technology developed under the research agreement. The license agreement, as amended, provides for a royalty to be paid to the University equal to 2% of net sales of products containing the licensed technology sold by the Company.

Cobe BCT, Inc.--In connection with the issuance of the Series C Preferred Stock to Cobe in October 1993, the Company and Cobe BCT, Inc. ("Cobe BCT"), an affiliate of Cobe, entered into an agreement which grants to Cobe BCT exclusive worldwide distribution and marketing rights to the Company's Cell Production System ("CPS") for stem cell therapy applications ("Distribution Agreement"). The term of the Distribution Agreement is ten years, with an option, exercisable by Cobe BCT, to extend the term for an additional ten years. Pursuant to the Distribution Agreement, Cobe BCT will perform worldwide marketing and distribution activities of the CPS for use in stem cell therapy and will receive a share of the resulting net sales, as defined, ranging from 38% to 42%, subject to certain negotiated discounts and volume-based adjustments.

The agreements establishing this collaboration provided for payments totaling $5,000,000 to be made by Cobe BCT upon the Company meeting certain development milestones. In May 1995, the Company accepted, as part of the sale of the Series D Preferred Stock, an equity investment of $5,000,000 from Cobe in lieu of those future milestone payments.

M.D. Anderson Cancer Center--In December 1992, the Company entered into a research agreement with the University of Texas, M.D. Anderson Cancer Center ("M.D. Anderson"). Under this agreement, the Company funded certain research being conducted at M.D. Anderson and issued to M.D. Anderson 33,333 shares of its Common Stock subject to vesting rights over the succeeding four year period. In November 1994, the Company and M.D. Anderson terminated the collaboration and 25,000 shares of Common Stock held by M.D. Anderson were returned to the Company.

License and Royalty Agreements--In July 1992, the Company licensed certain cell culture technology under which it obtained an exclusive worldwide license to the technology in exchange for a royalty of up to 3% of net sales on products utilizing the licensed technology.

In March 1996, the Company executed a license agreement which provides for the use of licensed products in the CPS. Pursuant to this license agreement, the Company recorded a charge to research and development expense of $1,500,000 representing the license fee payable upon execution of the agreement. The license agreement provides for annual renewal fees of $1,000,000 over the five year license term and can be extended at the Company's option for an additional five years.

Rhone-Poulenc Rorer Inc.--In September 1995, the Company entered into a research and development collaboration with Rhone-Poulenc Rorer Inc. ("RPR"), granting RPR a right to license the Company's CPS for Lymphoid cell applications. Prior to the establishment of this collaboration, the Company received a option fee of $250,000 and a development deposit of $225,000 to initiate the preliminary research and development plan. Pursuant to the agreements establishing this collaboration, RPR was obligated to fund certain costs associated with the development of the CPS for Lymphoid cell applications and was entitled to make equity purchases of up to $12,500,000 subject to the Company's satisfaction of certain milestones and RPR's decision to exercise certain options. As of June 30, 1996, the Company has received $3,500,000 in equity payments and recognized $1,342,000 in research revenue through June 30, 1996 and $1,537,000 through September 30, 1996. The remaining $9,000,000 equity payment was to be paid by RPR by October 1996 pending RPR's evaluation of the research efforts for Lymphoid cell applications and its decision to proceed with the collaboration (Note 9).

7. COMMITMENTS

The Company leases certain machinery and equipment and office equipment under capital leases. Obligations under these leasing arrangements bear interest at rates ranging from 9.7% to 12.1% and mature at dates ranging from November 1996 to May 1999. Additionally, the Company leases its facilities under an operating lease which expires in May 1998, at which time the Company has the option to renew the lease for an additional period of up to five years.

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

	CAPITAL LEASES	OPERATING LEASES
Year Ended June 30,		
1997	$255,000	$453,000
1998	138,000	435,000
1999	69,000	--
Total minimum lease payments	462,000	$888,000
Less amount representing interest	(50,000)	
Obligations under capital lease	$412,000	

Certain of the Company's capital lease agreements contain restrictive provisions which require that the Company's total assets exceed its total liabilities by at least $1,000,000. Should the Company fall out of compliance with this provision, and a waiver cannot be obtained from the lessor, remaining amounts due under the leases become immediately due and payable.

Rent expense for the years ended June 30, 1994, 1995 and 1996, was $176,000, $241,000 and $338,000, respectively, and for the period from Inception to June 30, 1996 was $822,000. Rent expense for the three months ended September 30, 1995 and 1996, was $83,000 and $107,000, respectively, and for the period from Inception to September 30, 1996 was $929,000.

8. EMPLOYEE SAVINGS PLAN

The Company has a 401(k) plan that became effective in January 1994. The plan 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, 1996, the Company has made no contributions to the plan.

9. SUBSEQUENT EVENTS (UNAUDITED)

In September 1996, RPR notified the Company of its intent to terminate its collaboration with the Company. This notification was made after RPR had determined that for strategic reasons its support for the development of the technologies being pursued under the collaboration would be discontinued. As a result of this termination, no further equity payments or research funding is due from RPR and RPR's license rights to the Company's CPS for Lymphoid cell applications are terminated. Upon termination of the collaboration, RPR became entitled to receive shares of the Company's Series E Preferred Stock at $17.00 per share for the $3,500,000 in equity payments made by RPR under the collaboration. Accordingly, the accompanying financial statements as of September 30, 1996 reflect the issuance of 205,882 shares of Series E Preferred Stock issuable to RPR in this regard.

In October 1996, the Company executed a financing commitment for up to $5,000,000 in additional equity funding from Cobe ("Equity Commitment") and $5,000,000 in funding under a convertible loan agreement ("Convertible Loan Commitment") with another current investor. Under the terms of the Equity Commitment,

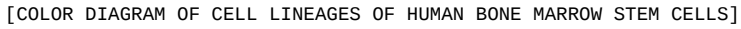
the Company may sell up to $5,000,000 of preferred stock at $6.00 per share during a funding period that extends from January 1997 to December 1997. The conversion rights of such preferred stock will be adjusted to provide for a conversion at 80% of the per share price in the Company's next financing, as adjusted for the Reverse Stock Split, and provided that such financing meets certain minimum requirements ("Qualifying Financing"), such as the proposed IPO in which these financial statements appear. If such a financing is not completed by December 1997, then the conversion rights of this class of preferred stock into Common Stock will be set at $6.98 per share of Common Stock. To the extent shares are sold to Cobe under the Equity Commitment, its preemptive right in the Company's next Qualifying Financing and the Company's Put Option to Cobe is reduced to the extent of its purchase.

Upon the sale of $5,000,000 in preferred stock under the Equity Commitment, the Company becomes entitled to borrow funds under the Convertible Loan Commitment. Such funds may be borrowed by the Company during a funding period that extends from January 1997 to September 1997. Upon the completion of a Qualifying Financing by the Company, the Company has the option to repay outstanding borrowings under the Convertible Loan Commitment, in cash, or to convert such borrowings into preferred stock. The conversion rights of such class of preferred stock will be adjusted to provide for a conversion at 90% of the per share price in the Company's next Qualifying Financing, as adjusted for the Reverse Stock Split. If such financing is not completed by December 1997, then the conversion rights of this class of preferred stock will be set at $6.98 per share of Common Stock. Interest accrues at 10% on amounts borrowed under the Convertible Loan Commitment, which is due at maturity, and may be retired in a manner consistent with principal. The Company may repay borrowed amounts at anytime prior to the maturity date which is established for all amounts borrowed as one year from the date of the first borrowing.

In connection with the Convertible Loan Commitment, the Company has issued warrants to purchase 69,444 shares of Common Stock for securing the commitment. The Company will issue additional warrants to purchase 8,333 shares of Common Stock for each $1,000,000 borrowed under the Convertible Loan Commitment, with such additional warrants to be prorated to the level of borrowing. The warrants expire on October 15, 2000 if not exercised, and may be exercised, in whole or in part, at a price equal to the lesser of (a) $9.00 per share, which price increases by $3.00 per share on each anniversary of the closing of the offering being made in the Prospectus to which these financial statements are included; or (b) 85% of the fair market value of the Company's Common Stock at the time of exercise.

On December 10, 1996, the Company issued to Cobe a notice to sell to Cobe 500,000 shares of Series F Preferred Stock for an aggregate purchase price of $3,000,000 under the Equity Commitment. Such sale is scheduled to close on March 19, 1997. In the event that the IPO closes prior to March 19, 1997, Cobe's obligation to purchase Series F Preferred Stock under the Equity Commitment will terminate. In the event that the IPO closes after March 19, 1997, Cobe's participation in this offering will be reduced by $3,000,000, the amount of its purchase of Series F Preferred Stock pursuant to the Equity Commitment. The Equity Commitment and the Convertible Loan Commitment expire upon the closing of the IPO.

Inside back cover page of Prospectus



No dealer, salesperson or other person has been authorized to give any information or to make any representations other than those contained in this Prospectus, and, if given or made, such information or representation must not be relied upon as having been authorized by the Company or any of the Underwriters or any other person. This Prospectus does not constitute an offer to sell or a solicitation of an offer to buy any security other than the shares of Common Stock offered, nor does it constitute an offer to sell or a solicitation of an offer to buy any of the securities offered to any person in any jurisdiction or in which it is unlawful to make such offer or solicitation to such person. Neither the delivery of this Prospectus nor any sale made hereunder shall under any circumstances create an implication that the information contained herein is correct as of any date subsequent to the date hereof.

TABLE OF CONTENTS

Until , 1997 (25 days after the date of this Prospectus), all dealers effecting transactions in the Common Stock offered, whether or not participating in this distribution, may be required to deliver a Prospectus. This is in addition to the obligation of dealers to deliver a Prospectus when acting as Underwriters and with respect to their unsold allotments or subscriptions.

3,250,000 Shares

[LOGO OF AASTROM BIOSCIENCES INC]

Common Stock

PROSPECTUS

COWEN & COMPANY

J.P. MORGAN & CO.

, 1997

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

ITEM 13. OTHER EXPENSES OF ISSUANCE AND DISTRIBUTION

Other expenses in connection with the registration of the securities hereunder, which will be paid by the Company, will be substantially as follows:

ITEM	AMOUNT
Securities and Exchange Commission registration fee	$ 11,326
NASD filing fee	4,238
Nasdaq National Market fee	50,000
Blue sky qualification fees and expenses	20,000
Accounting fees and expenses	85,000
Legal fees and expenses	350,000
Printing and engraving expenses	115,000
Transfer agent and registrar fees	7,500
Officers' and Directors' Insurance	200,000
Miscellaneous expenses	56,936
Total	$900,000

ITEM 14. INDEMNIFICATION OF DIRECTORS AND OFFICERS

Sections 1561 through 1565 of the Michigan Business Corporation Act (the "MBCA") authorize a corporation to grant or a court to award, indemnity to directors, officers, employees and agents in terms sufficiently broad to permit such indemnification under certain circumstances for liabilities (including reimbursement for expenses incurred) arising under the Securities Act of 1933.

The Bylaws of the Company (see Exhibit 3.3), provide that the Company shall, to the fullest extent authorized or permitted by the MBCA, or other applicable law, indemnify a director or officer who was or is a party or is threatened to be made a party to any proceeding by or in the right of the Company to procure a judgment in its favor by reason of the fact that such person is or was a director, officer, employee or agent of the Company, against expenses, including actual and reasonable attorneys' fees, and amounts paid in settlement incurred in connection with the action or suit, if the indemnitee acted in good faith and in a manner the person reasonably believed to be in, or not opposed to, the best interests of the Company or its shareholders. This section also authorizes the Company to advance expenses incurred by any agent of the Company in defending any proceeding prior to the final disposition of such proceeding upon receipt of an undertaking by or on behalf of the agent to repay such amount unless it shall be determined ultimately that the agent is entitled to be indemnified.

The Bylaws also authorize the Company to purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the Company against any liability asserted against or incurred by such person in such capacity or arising out of such person's status as such, regardless of whether the Company would have the power to indemnify such person against such liability under the provisions of the MBCA.

The Company has entered into an indemnification agreement with certain of its directors, officers and other key personnel, which contains provisions that may in some respects be broader than the specific indemnification provisions contained under applicable law. The indemnification agreement may require the Company, among other things, to indemnify such directors, officers and key personnel against certain liabilities that may arise by reason of their status or service as directors, officers or employees of the Company, to advance the expenses incurred by such parties as a result of any threatened claims or proceedings brought against them as to which

they could be indemnified, and, to the maximum extent that insurance coverage of such directors, officers and key employees under the Company's directors' and officers' liability insurance policies is maintained.

Section 1209 of the MBCA permits a Michigan corporation to include in its Articles of Incorporation a provision eliminating or limiting a director's liability to a corporation or its shareholders for monetary damages for breaches of fiduciary duty. The enabling statute provides, however, that liability for breaches of the duty of loyalty, acts or omissions not in good faith or involving intentional misconduct or knowing violation of the law, or the receipt of improper personal benefits cannot be eliminated or limited in this manner. The Company's Restated Articles of Incorporation include a provision which eliminates, to the fullest extent permitted by the MBCA director liability for monetary damages for breaches of fiduciary duty.

Section 6 of the Underwriting Agreement filed as Exhibit 1.1 hereto sets forth certain provisions with respect to the indemnification of certain controlling persons, directors and officers against certain losses and liabilities, including certain liabilities under the Securities Act.

ITEM 15. RECENT SALES OF UNREGISTERED SECURITIES

(a) ISSUANCES OF COMMON STOCK

Since October 1, 1993, the Company has sold the following shares of Common Stock:

In October 1995, the registrant issued 37,500 shares of Common Stock to Albert B. Deisseroth at a price of $.80 per share.

(b) ISSUANCES OF SHARES OF PREFERRED STOCK

Since October 1, 1993, the Company has sold the following shares of Preferred Stock:

In October 1993, the registrant issued 10,000 shares of Series C Preferred Stock to Cobe at a price of $1,000 per share.

In April and May 1995, the registrant issued an aggregate of 2,500,001 shares of Series D Preferred Stock to 11 accredited investors at a price of $4.00 per share.

In December 1995, the registrant issued 62,500 shares of Series D Preferred Stock to Northwest Ohio Venture Fund, L.P. at a purchase price of $4.00 per share.

In January 1996, the registrant issued an aggregate of 1,411,765 shares of Series E Preferred Stock to SBIC Partners, L.P. and the State Treasurer of the State of Michigan at a purchase price of $4.25 per share.

Pursuant to a Governance Agreement between the Company and Rhone-Poulenc Rorer Inc. ("RPR"), dated September 15,1995, RPR terminated its contractual relationship with the Company on September 6, 1996. As a result of such termination, the Company became obligated to issue 205,882 shares of Series E Preferred Stock to RPR at a purchase price of $17.00 per share.

In October 1996, the Company issued warrants to Michigan to purchase 69,444 shares of Common Stock as consideration for the Convertible Loan Commitment and has agreed to issue additional warrants to purchase 8,333 shares of Common Stock for each $1,000,000 borrowed under the Convertible Loan Commitment, as adjusted to the level of borrowing.

(c) OPTION ISSUANCES TO, AND EXERCISES BY, EMPLOYEES AND DIRECTORS

From January 18, 1990 to the present, the registrant has granted options to purchase a total of 2,945,174 shares of Common Stock at exercise prices ranging from $.10 to $2.13 per share to 95 employees and one non-employee director. No consideration was paid to the Registrant by any recipient of any of the foregoing options for the grant of any such options. From October 30, 1992 to the present, the Registrant issued a total of 2,829,735 shares of Common Stock to 26 employees and one non-employee director upon exercise of stock options at exercise prices ranging from $.10 to $2.13 per share.

There were no underwriters employed in connection with any of the transactions set forth in Item 15.

The issuances described in Items 15(a) and 15(b) were exempt from registration under the Securities Act in reliance on Section 4(2) of the Securities Act as transactions by an issuer not involving a public offering. The issuances described in Item 15(c) were exempt from registration under the Securities Act in reliance on Rule 701 promulgated thereunder as transactions pursuant to compensatory benefit plans and contracts relating to compensation. The recipients of securities in each such transaction represented their intention to acquire the securities for investment only and not with a view to or for sale in connection with any distribution thereof and appropriate legends were affixed to the share certificates and other instruments issued in such transactions.

ITEM 16. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) Exhibits

1.1*	Form of Underwriting Agreement.
3.1**	Restated Articles of Incorporation.
3.2	Form of Restated Articles of Incorporation (to be filed with the Secretary of State of the State of Michigan prior to the closing of this offering).
3.3**	Bylaws, as amended.
4.1	Specimen Common Stock Certificate.
4.2**	Amended and Restated Investors' Rights Agreement dated April 7, 1992.
5.1	Opinion of Pepper, Hamilton & Scheetz, counsel to the Company, with respect to the legality of the securities being registered, including their consent to being named in the Registration Statement.
10.1**	Form of Indemnification Agreement.
10.2**	1989 Stock Option Plan and form of agreement thereunder.
10.3**	Ancillary Stock Option Plan and form of agreement thereunder.
10.4**	401(k) Plan.
10.5**	Amended and Restated 1992 Incentive and Non-Qualified Stock Option Plan and forms of agreements thereunder.
10.6**	1996 Outside Directors Stock Option Plan and forms of agreements thereunder.
10.7**	1996 Employee Stock Purchase Plan and form of agreement thereunder.
10.8**	Form of Employment Agreement.
10.9**	Stock Purchase Agreement dated October 22, 1993 between Cobe Laboratories, Inc. and the Company and amendment thereto dated October 29, 1996.
10.10**+	Distribution Agreement dated October 22, 1993 between Cobe BCT, Inc. and the Company and amendments thereto dated March 29, 1995, September 11, 1995 and October 29, 1996.
10.11**	License Agreement dated July 17, 1992 between J.G. Cremonese and the Company and related addenda thereto dated July 14, 1992 and July 7, 1993.
10.12**+	Collaborative Product Development Agreement dated May 10, 1994 between SeaMED Corporation and the Company.
10.13**+	Collaborative Product Development Agreement dated November 8, 1994 between Ethox Corporation and the Company.
10.14**+	License and Supply Agreement dated April 1, 1996 between Immunex Corporation and the Company.

10.15** Lease Agreement dated May 18, 1992 between Domino's Farms Holding, L.P. and the Company and amendments thereto dated February 26, 1993, October 3, 1994, November 16, 1994 and July 29, 1996.

10.16** Clinical Trial Agreement dated April 19, 1996 between the Company and the University of Texas M.D. Anderson Cancer Center.

10.17** License Agreement dated March 13, 1992 between the Company and the University of Michigan and amendments thereto dated March 13, 1992, October 8, 1993 and June 21, 1995.

10.18** Employee Proprietary Information and Invention Agreement effective June 1, 1991 between the Company and R. Douglas Armstrong.

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10.24** Promissory Note dated November 18, 1993 for $120,000 loan by the Company to R. Douglas Armstrong and amendment thereto dated October 30, 1996.

10.25** Promissory Note dated October 20, 1993 for $47,303 loan by the Company to Stephen G. Emerson, M.D., Ph.D and amendment thereto dated October 30, 1996.

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10.29** Convertible Loan Commitment Agreement dated October 15, 1996 between the State Treasurer of the State of Michigan and the Company.

10.30** Form of Subscription Agreement for the purchase of Series D Preferred Stock (Enterprise Development Fund L.P., Enterprise Development Fund II, L.P. and Northwest Ohio Venture Fund Limited Partnership).

10.31** Stock Purchase Agreement dated January 8, 1996 among the Company, SBIC Partners, L.P. and the State Treasurer of the State of Michigan.

10.32**+ Governance Agreement dated September 15, 1995 between the Company and Rhone-Poulenc Rorer Inc.

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10.34** Stock Purchase Agreement dated September 15, 1995 between the Company and Rhone-Poulenc Rorer Inc.

10.35**	Letter Agreement dated November 11, 1996 between the Company and Cobe Laboratories, Inc.
10.36**	Form of Subscription Agreement for the purchase of Series D Preferred Stock (Brentwood Associates V, L.P., Candice E. Appleton Family Trust, Candis J. Stern, Helmut F. Stern, H&Q Life Science Technology Fund, H&Q London Ventures, State Treasurer of the State of Michigan and Windpoint Partners II, Limited Partnership).
10.37**	Subscription Agreement dated December 11, 1995 between the Company and Northwest Ohio Venture Fund Limited Partnership.
10.38**	Subscription Agreement dated May 30, 1995 between the Company and Cobe Laboratories, Inc.
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10.41+	Collaborative Supply Agreement dated December 16, 1996 between the Company and Anchor Advanced Products, Inc., Mid-State Plastics Division.
11.1**	Statement re computation of pro forma net loss per share.
23.1	The consent of Coopers & Lybrand, L.L.P.
23.2	The consent of Pepper, Hamilton & Scheetz is contained in their opinion filed as Exhibit 5.1 of the Registration Statement.
23.3**	The consent of Oblon, Spivak, McClelland, Maier & Neustadt, P.C.
24.1**	Power of Attorney.
27.1**	Financial Data Schedule.
27.2**	Financial Data Schedule.
27.3**	Financial Data Schedule.
27.4**	Financial Data Schedule.
27.5**	Financial Data Schedule.
27.6**	Financial Data Schedule.

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* To be filed by Amendment.
** Previously filed.
\+ The Company has applied for confidential treatment with respect to certain portions of these documents.

(b) Financial Statement Schedules

Schedules other than those referred to above have been omitted because they are not applicable or not required under the instructions contained in Regulation S-X or because the information is included elsewhere in the Financial Statements or the notes thereto.

ITEM 17. UNDERTAKINGS

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the Registrant, pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that

a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

The undersigned Registrant hereby undertakes that:

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

(2) For the purpose of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

The undersigned Registrant hereby undertakes to provide to the underwriter at the closing specified in the underwriting agreements certificates in such denominations and registered in such names as required by the underwriters to permit prompt delivery to each purchaser.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant has duly caused this amendment to the registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Ann Arbor, State of Michigan, on the 19th day of December, 1996.

AASTROM BIOSCIENCES, INC.

By: /s/ R. Douglas Armstrong

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

Pursuant to the requirements of the Securities Act of 1933, this amendment to the registration statement has been signed by the following persons in the capacities and on the dates indicated.

SIGNATURE	TITLE	DATE
/s/ R. Douglas Armstrong R. Douglas Armstrong, Ph.D.	President, Chief Executive Officer, and Director (Principal Executive Officer)	December 19, 1996
Todd E. Simpson* Todd E. Simpson	Vice President, Finance & Administration and Chief Financial Officer (Principal Financial and Accounting Officer)	December 19, 1996
Robert J. Kunze* Robert J. Kunze	Chairman of the Board and Director	December 19, 1996
Albert B. Deisseroth* Albert B. Deisseroth, M.D., Ph.D.	Director	December 19, 1996
Stephen G. Emerson* Stephen G. Emerson, M.D., Ph.D.	Director	December 19, 1996
G. Bradford Jones* G. Bradford Jones	Director	December 19, 1996
Horst R. Witzel* Horst R. Witzel, Dr.-Ing.	Director	December 19, 1996
Edward C. Wood* Edward C. Wood, Jr.	Director	December 19, 1996

*By: /s/ R. Douglas Armstrong
R. Douglas Armstrong
Attorney-in-Fact

EXHIBIT INDEX

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* To be filed by Amendment.

** Previously filed.

\+ The Company has applied for confidential treatment with respect to certain portions of these documents.

EXHIBIT 3.2

MICHIGAN DEPARTMENT OF COMMERCE - CORPORATION AND SECURITIES BUREAU

Date Received | | (FOR BUREAU USE ONLY)

Name
T. Knox Bell, Esq.

Address
Gray Cary Ware & Freidenrich
4365 Executive Drive, Suite 1600

City: San Diego | State: CA | Zip Code: 92121

EFFECTIVE DATE:

DOCUMENT WILL BE RETURNED TO THE NAME AND ADDRESS YOU ENTER ABOVE

RESTATED ARTICLES OF INCORPORATION

FOR USE BY DOMESTIC PROFIT CORPORATIONS
(Please read information and instructions on the last page)

Pursuant to the provisions of Act 284, Public Acts of 1972, the undersigned corporation executes the following Articles:

1. The present name of the corporation is:
Aastrom Biosciences, Inc.

2. The identification number assigned by the Bureau is: 529 - 456

3. All former names of the corporation are:
Ann Arbor Stromal, Inc.

4. The date of filing the original Articles of Incorporation was:
March 24, 1989

The following Restated Articles of Incorporation supersede the Articles of Incorporation as amended and shall be the Articles of Incorporation for the corporation:

ARTICLE I

The name of the corporation is:

Aastrom Biosciences, Inc.

ARTICLE II

The purpose or purposes for which the corporation is formed are:

To engage in any activity within the purpose for which corporations may be organized under the Michigan Business Corporation Act.

ARTICLE III

The total authorized shares:

Common shares 40,000,000 Preferred shares 10,990,980

A statement of all or any of the relative rights, preferences and limitations of the shares of each class is as follow:

See Rider attached hereto and made a part hereof.

ARTICLE IV

1. The address of the current registered office is:

36th Floor, 100 Renaissance Center, Detroit, Michigan 48243

(Street Address) (City) (Zip Code)

2. The mailing address of the current registered office, if different than above:

Michigan

(Street Address or P.O. Box) (City) (Zip Code)

3. The name of the current resident agent is: Michael B. Staebler

ARTICLE V (OPTIONAL. DELETE IF NOT APPLICABLE)

When a compromise or arrangement or a plan of reorganization of this corporation is proposed between this corporation and its creditors or any class of them or between this corporation and its shareholders or any class of them, a court of equity jurisdiction within the state, on application of this corporation or of a creditor or shareholder thereof, or on application of a receiver appointed for the corporation, may order a meeting of the creditors or class of creditors or of the shareholders or class of shareholders to be affected by the proposed compromise or arrangement or reorganization, to be summoned in such manner as the court directs. If a majority in number representing 3/4 in value of the creditors or class of creditors, or of the shareholders or class of shareholders to be affected by the proposed compromise or arrangement or a reorganization, agree to a compromise or arrangement or a reorganization of this corporation as a consequence of the compromise or arrangement, the compromise or arrangement and the reorganization, if sanctioned by the court to which the application has been made, shall be binding on all the creditors or class of creditors, or on all the shareholders or class of shareholders and also on this corporation.

ARTICLE VI (OPTIONAL. DELETE IF NOT APPLICABLE)

Any action required or permitted by the Act to be taken at an annual or special meeting of shareholders may be taken without a meeting, without prior notice, and without a vote, if consents in writing, setting forth the action so taken, are signed by the holders of outstanding shares having not less than the minimum number of votes that would be necessary to authorize or take the action at a meeting at which all shares entitled to vote on the action were present and voted. The written consents shall bear the date of signature of each shareholder who signs the consent. No written consents shall be effective to take the corporate action referred to unless, within 60 days after the record date for determining shareholders entitled to express consent to or to dissent from a proposal without a meeting, written consents dated not more than 10 days before the record date and signed by a sufficient number of shareholders to take the action are delivered to the corporation. Delivery shall be to the corporation's registered office, its principal place of business, or an officer or agent of the corporation having custody of the minutes of the proceedings of its shareholders. Delivery made to a corporation's registered office shall be by hand or by certified or registered mail, return receipt requested.

Prompt notice of the taking of the corporate action without a meeting by less than unanimous written consent shall be given to shareholders who would have been entitled to notice of the shareholder meeting if the action had been taken at a meeting and who have not consented in writing.

ARTICLE VII. (Additional provisions, if any, may be inserted here; attach additional pages if needed.)

See Rider attached hereto and made a part hereof.

5. COMPLETE SECTION (a) IF THE RESTATED ARTICLES WERE ADOPTED BY THE UNANIMOUS CONSENT OF THE INCORPORATOR(S) BEFORE THE FIRST MEETING OF THE BOARD OF DIRECTORS; OTHERWISE, COMPLETE SECTION (b). DO NOT COMPLETE BOTH.

a. [_] These Restated Articles of Incorporation were duly adopted on the _____ day of _____, 19_____, in accordance with the provisions of Section 642 of the Act by the unanimous consent of the incorporator(s) before the first meeting of the Board of Directors.

Signed this _____ day of _____, 19_____.

_____ _____

_____ _____

(Signatures of Incorporators; Type or Print Name Under Each Signature)

b. [X] These Restated Articles of Incorporation were duly adopted on the 30th day of October, 1996 in accordance with the provisions of Section 642 of the Act and: (check one of the following)

[_] were duly adopted by the Board of Directors without a vote of the shareholders. These Restated Articles of Incorporation only restate and integrate and do not further amend the provisions of the Articles of Incorporation as heretofore amended and there is no material discrepancy between those provisions and the provisions of these Restated Articles.

[_] were duly adopted by the shareholders. The necessary number of shares as required by statute were voted in favor of these Restated Articles.

[X] were duly adopted by the written consent of the shareholders having not less than the minimum number of votes required by statute in accordance with Section 407(1) of the Act. Written notice to shareholders who have not consented in writing has been given. (Note: Written consent by less than all of the shareholders is permitted only if such provision appears in the Articles of Incorporation.)

[_] were duly adopted by the written consent of all the shareholders entitled to vote in accordance with section 407(2) of the Act.

Signed this _____ day of _____, 19_____

By_____
(Only Signature of President, Vice-President, Chairperson, or Vice-Chairperson)

R. DOUGLAS ARMSTRONG, PH.D. PRESIDENT

(Type or Print Name) (Type or Print Title)

Name of person or organization remitting fees:

Preparer's name and business telephone number:

( )

INFORMATION AND INSTRUCTIONS

1. The articles of incorporation cannot be restated until this form, or a comparable document, is submitted.

2. Submit one original of this document. Upon filing, the document will be added to the records of the Corporation and Securities Bureau. The original will be returned to the address appearing in the box on the front as evidence of filing.

   Since this document will be maintained on optical disk media, it is important that the filing be legible. Documents with poor black and white contrast, or otherwise illegible, will be rejected.

3. This document is to be used pursuant to sections 641 through 643 of the Act for the purpose of restating the articles of incorporation of a domestic profit corporation. Restated articles of incorporation are an integration into a single instrument of the current provisions of the corporation's articles of incorporation, along with any desired amendments to those articles.

4. Restated articles of incorporation which do not amend the articles of incorporation may be adopted by the board of directors without a vote of the shareholders. Restated articles of incorporation which amend the articles of incorporation require adoption by the shareholders. Restated articles of incorporation submitted before the first meeting of the board of directors require adoption by all of the incorporators.

5. Item 2 - Enter the identification number previously assigned by the Bureau. If this number is unknown, leave it blank.

6. The duration of the corporation should be stated in the restated articles of incorporation only if it is not perpetual.

7. This document is effective on the date endorsed "filed" by the Bureau. A later effective date, no more than 90 days after the date of delivery, may be stated as an additional article.

8. If the restated articles are adopted before the first meeting of the board of directors, item 5(a) must be completed and signed in ink by a majority of the incorporators. Other restated articles must be signed by the president, vice-president, chairperson or vice-chairperson.

9. FEES: Make remittance payable to the State of Michigan. Include corporation name and identification number on check or money order.

NONREFUNDABLE FEE	$10.00
TOTAL MINIMUM FEE	$10.00
ADDITIONAL FEES DUE FOR INCREASED AUTHORIZED SHARES ARE:	
each additional 20,000 authorized shares or portion thereof	$ 30.00
maximum fee for first 10,000,000 authorized shares	$ 5,000.00
each additional 20,000 authorized shares or portion thereof in excess of 10,000,000 shares	$ 30.00
maximum fee per filing for authorized shares in excess of 10,000,000 shares	$200,000.00

10. Mail form and fee to:

    Michigan Department of Commerce
    Corporation and Securities Bureau
    Corporation Division
    P.O. Box 30054
    Lansing, MI 48909-7554

    The office is located at:

    6546 Mercantile Way
    Lansing, MI 48910
    Telephone: (517) 334-6302

RIDER TO ARTICLE III

PART A: COMMON STOCK

Section 1. Voting Rights.

1.1 One Vote Per Share. The holders of shares of Common Stock shall be entitled to one vote for each share so held with respect to all matters voted on by the shareholders of the Corporation, subject in all cases to Section 4 of Part B of this Article III.

1.2 Two-Thirds Consent. Effective immediately upon and at all times following the closing of the Corporation's first firm commitment underwritten public offering of Common Stock (the "IPO") registered under the Securities Act of 1933, as amended (the "Securities Act"), consent of the holders of at least two-thirds (2/3) of the outstanding shares of Common Stock shall be required for (i) any action which results in a consolidation or merger which would be treated as a liquidation, dissolution or winding up of the Corporation under Section 3.4 of Part B of this Article III, or which results in the liquidation, sale or assignment of all or substantially all of the assets of the Corporation; (ii) any amendment to these Articles of Incorporation; or (iii) any amendment by the shareholders of the Corporation of the Bylaws of the Corporation (the Board of Directors of the Corporation, as provided in Section 3 of Article VII, shall have the authority to amend the Bylaws of the Corporation without the consent of the shareholders of the Corporation).

Section 2. Liquidation Rights. The rights of the holders of Common Stock upon any voluntary or involuntary liquidation, dissolution or winding up of the affairs of the Corporation shall be as set forth in Section 3 of Part B of this Article III. However, all distributions made or funds paid to the holders of Common Stock upon the occurrence of such an event shall be made on the basis of the number of shares of Common Stock held by each of them.

Section 3. Dividends. Dividends may be paid on the Common Stock as and when declared by the Board of Directors, subject in all cases to Section 2 of Part B of this Article III.

Section 4. Reverse Stock Split. Immediately upon the effectiveness of these Articles of Incorporation (the "Effective Date"), each issued and outstanding share of Common Stock shall automatically convert into two-thirds (2/3) of a share of Common Stock. No fractional shares shall be issued upon such reverse stock split, and in lieu thereof the Corporation shall pay to each holder of a fractional interest of a share of Common Stock an amount equal to the fair market value of such fractional interest on the date of such reverse stock split as such fair market value is determined in good faith by the Board of Directors of the Corporation. Following the Effective Date, each stock certificate representing shares of Common Stock outstanding prior to the Effective Date shall represent the appropriate number of shares of Common Stock which the Common

Stock represented by such stock certificate shall become as a result of the reverse stock split referenced in this Section 4 of Part A of Article III.

PART B: PREFERRED STOCK

Section 1. Designation. The Preferred Stock shall consist of six series to be designated and known as "Series A Preferred Stock" (or "Series A"), "Series B Preferred Stock" (or "Series B"), "Series C Preferred Stock" (or "Series C"), "Series D Preferred Stock" (or "Series D"), "Series E Preferred Stock" (or "Series E") and "Series F Preferred Stock" (or "Series F"). All series of Preferred Stock shall be identical with each other in all respects except as otherwise provided herein. As used herein, the term "Preferred Stock" without designation shall refer to shares of Series A, Series B, Series C, Series D, Series E and Series F Preferred Stock, or to shares of any series. The number of shares constituting each such series of Preferred Stock shall be as set forth below:

- Series A Preferred Stock: 2,500,000 shares.
- Series B Preferred Stock: 3,030,000 shares.
- Series C Preferred Stock: 10,000 shares.
- Series D Preferred Stock: 3,000,000 shares.
- Series E Preferred Stock: 1,617,647 shares.
- Series F Preferred Stock: 833,333 shares.

Section 2. Dividends. Dividends are payable when and as declared by the Board of Directors subject to the restrictions imposed by the Michigan Business Corporation Act. Dividends on the Preferred Stock shall not be cumulative and no right to such dividends shall accrue to holders of Preferred Stock unless declared by the Board of Directors. Holders of outstanding shares of certain series of Preferred Stock shall be entitled to receive dividends in preference to any dividend (whether in cash, securities of the Corporation or other property) on certain other shares of capital stock of the Corporation, as set forth below in terms of four "Levels," to be designated and known as "Level 1," "Level 2," "Level 3" and "Level 4." No dividends or other distributions shall be made with respect to a particular Level until all dividends on the preceding Levels have been paid on or set apart for payment. For example, dividends on Level 3 shall not be paid or set apart for payment until full dividends on Level 1 and Level 2 have been paid or set apart for payment. Dividends, if paid, must be paid on, or, if declared and set apart for payment on, must be declared and set apart for payment on, all outstanding shares of capital stock on a particular Level contemporaneously, and if less than full dividends are paid on or if declared and set apart for payment on a particular Level, then the same percentage of the respective dividend rate on all shares on such Level shall be paid or declared and set apart for payment.

- Level 1: $0.48 per share of Series F Preferred Stock; and
  $0.34 per share of Series E Preferred Stock.
- Level 2: $0.32 per share of Series D Preferred Stock;
  $80.00 per share of Series C Preferred Stock; and
  $0.16 per share of Series B Preferred Stock.

. Level 3: $0.08 per share of Series A Preferred Stock.

. Level 4: If a dividend is declared with respect to the Common Stock, then a contemporaneous dividend must be declared with respect to the Series E and Series F Preferred Stock in an amount equal to that which would be received if the Series E and Series F Preferred Stock had been converted to Common Stock on the declaration date of such dividend.

Section 3. Liquidation Preference.
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3.1 Preferential Amounts. In the event of any voluntary or involuntary
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liquidation, dissolution or winding up of the Corporation, any distribution of the assets or surplus funds of the Corporation to holders of shares of capital stock of the Corporation by reason of their ownership thereof must take place as set herein. Holders of shares of certain series of Preferred Stock shall be entitled to receive such distributions prior and in preference to any such distributions on certain other shares of capital stock of the Corporation, as set forth below in terms of four "Tiers," to be designated and known as "Tier 1," "Tier 2," "Tier 3" and "Tier 4." No such distributions shall be made with respect to a particular Tier until all such preferential distributions on the preceding Tiers have been made. For example, such distributions on Tier 3 shall not be made until the full preferential distributions on Tier 1 and Tier 2 have been made. If the assets or surplus funds of the Corporation available for distribution to stockholders are insufficient to permit payment in full of amounts to which the holders of the outstanding shares on a particular Tier are entitled pursuant to this Section 3, then such available assets and funds shall be distributed ratably among the holders of the outstanding shares on such Tier in proportion to the full preferential distribution each such holder is otherwise entitled to receive. The preferential amounts set forth below shall be adjusted for any stock dividends, combinations or splits with respect to such shares.

. Tier One: $6.00 per share of Series F Preferred Stock, plus all
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  accrued or declared but unpaid dividends thereon (the "Series F Preferential Amount"); and
  $4.25 per share of Series E Preferred Stock, plus all accrued or declared but unpaid dividends thereon (the "Series E Preferential Amount").

. Tier Two: $4.00 per share of Series D Preferred Stock, plus all
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  accrued or declared but unpaid dividends thereon (the "Series D Preferential Amount");
  $1,000.00 per share of Series C Preferred Stock, plus all accrued or declared but unpaid dividends thereon (the "Series C Preferential Amount"); and
  $2.00 per share of Series B Preferred Stock, plus all accrued or declared but unpaid dividends thereon (the "Series B Preferential Amount").

. Tier Three: $1.00 per share of Series A Preferred Stock, plus all accrued or declared but unpaid dividends thereon (the "Series A Preferential Amount").

3.2 Participation of Preferred Stock. After the payment or setting apart for payment of the Series A Preferential Amount, the Series B Preferential Amount, the Series C Preferential Amount, the Series D Preferential Amount, the Series E Preferential Amount and the Series F Preferential Amount, the remaining assets or surplus funds of the Corporation available for distribution upon such liquidation, dissolution or winding up shall be divided pro rata among the holders of Common Stock and Preferred Stock, treating the Preferred Stock as if converted to Common Stock on the date of such liquidation, dissolution or winding up.

3.3 Limits on Participation. In the event of such distribution upon a liquidation, dissolution or winding up of the Corporation, the amount otherwise payable to a holder of Preferred Stock shall not exceed the amount per share set forth opposite the name of the particular series of Preferred Stock, as set forth below and as adjusted for any stock dividends, combinations or splits with respect to such shares.

. Series A Preferred Stock: $5.00 per share.
. Series B Preferred Stock: $6.00 per share.
. Series C Preferred Stock: $2,500.00 per share.
. Series D Preferred Stock: $6.00 per share.
. Series E Preferred Stock: $6.00 per share.
. Series F Preferred Stock: $9.00 per share.

3.4 Consolidation or Merger. A consolidation or merger of the Corporation with or into another corporation or entity shall be regarded as a liquidation, dissolution or winding up of the Corporation with respect to the Preferred Stock within the meaning of this Section 3 unless such consolidation or merger is not intended to effect a change in the ownership or control of the Corporation or of its assets and is not intended to alter materially the business or assets of the Corporation, including, by way of example and without limiting the generality of the foregoing: (i) a consolidation or merger which merely changes the identity, form or place of organization of the Corporation, or which is between or among the Corporation and any of its direct or indirect subsidiaries, or (ii) following such merger or consolidation, shareholders of the Corporation immediately prior to such event own not less than 51% of the voting power of such corporation immediately after such merger or consolidation on a pro rata basis.

Section 4. Voting Rights.

4.1 General. Except as otherwise required by law, the holder of each share of Preferred Stock issued and outstanding shall have the number of votes equal to the number of shares of Common Stock into which such shares of Preferred Stock could be converted at the record date for determination of the shareholders entitled to vote on such matters, or, if no such record date is established, at the date such vote is taken or any written consent of shareholders is solicited, such votes to be counted together with

all other shares of stock of the Corporation having general voting power and not separately as a class.

4.2 Merger or Sale of Assets. Consent of the holders of at least the percentage or ratio of the outstanding shares of the class or series set forth opposite the name of such particular class or series of capital stock of the Corporation, as set forth below, shall be required for any action which results in a consolidation or merger which would be treated as a liquidation, dissolution or winding up of the Corporation under Section 3.4, or the liquidation, sale or assignment of all or substantially all of the assets of the Corporation.

- Common Stock and Preferred Stock, with the exception of Series C Preferred Stock: 2/3.
- Series A Preferred Stock: 2/3.
- Series B Preferred Stock: 2/3.
- Series D Preferred Stock: 2/3.
- Series E Preferred Stock: 51%.
- Series F Preferred Stock: 51%.

4.3 Changes Affecting a Particular Series. Consent of the holders of at least the percentage or ratio of the outstanding shares of a particular series of Preferred Stock set forth opposite the name of such series, as set forth below, with only the affected series voting and with each such affected series voting as a separate class, shall be required for any action which: (a) alters the rights, preferences, privileges or restrictions of such series; (b) increases or decreases the authorized number of shares of such series; or (c) creates any new class or series of capital stock of the Corporation having rights, preferences or privileges senior to or on a parity with such series.

- Series A Preferred Stock: 2/3.
- Series B Preferred Stock: 2/3.
- Series C Preferred Stock: Majority.
- Series D Preferred Stock: 2/3.
- Series E Preferred Stock: 51%.
- Series F Preferred Stock: 51%.

4.4 Other Actions. Consent of the holders of at least the percentage or ratio of the outstanding shares of a particular series of Preferred Stock set forth opposite the name of such series, as set forth below, with each such series voting as a separate class, shall be required for: (a) any purchase or redemption by the Corporation of any shares of Preferred Stock; (b) any repurchase by the Corporation of any shares of Common Stock, other than repurchases from directors, employees and consultants of the Corporation which do not in any consecutive twelve-month period exceed One Hundred Thousand Dollars ($100,000); (c) any declaration or payment by the Corporation of a dividend or distribution on account of the Common Stock prior to the conversion of all shares of Preferred Stock, other than a dividend or distribution payable in shares of Common Stock or otherwise taken into account by the anti-dilution provisions set forth in these Articles of Incorporation for the benefit of the Preferred Stock; (d) the sale by

any wholly-owned subsidiary of the Corporation of any shares of its stock to a third person; and (e) any amendment to these Articles of Incorporation.

- Series A Preferred Stock: 2/3.
- Series B Preferred Stock: 2/3.
- Series D Preferred Stock: 2/3.
- Series E Preferred Stock: 51%.
- Series F Preferred Stock: 51%.

4.5 Series C Quorum Requirement. At any meeting of the holders of all outstanding shares of Preferred Stock to vote as a class, the presence in person or by proxy of the holders of a majority of the outstanding shares of Series C Preferred Stock shall be required to constitute a quorum; in the absence of a quorum a majority of the holders present in person or by proxy shall have the power to adjourn the meeting from time to time without notice, other than announcement at the meeting, until a quorum shall be present.

Section 5. Redemption. The Preferred Stock is not redeemable.

Section 6. Conversion of Preferred Stock. The holders of Preferred Stock shall have conversion rights as follows (the "Conversion Rights"):

6.1 Conversion Prices.

6.1.1 Series A, Series B, Series C, Series D and Series E Preferred Stock.
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Upon any conversion of Series A, Series B, Series C, Series D and Series E Preferred Stock into Common Stock pursuant to this Section 6, each such share of such series of Preferred Stock shall be converted into such number of fully paid and nonassessable shares of Common Stock as is determined by taking the respective preferential amount for such series of Preferred Stock, as set forth below:

- Series A Preferred Stock: $1.00;
- Series B Preferred Stock: $2.00;
- Series C Preferred Stock: $1,000.00;
- Series D Preferred Stock: $4.00;
- Series E Preferred Stock: $4.25;

and dividing such preferential amount set forth above by the respective conversion price for such series of Preferred Stock, as set forth below:

- "Series A Conversion Price": $1.00;
- "Series B Conversion Price": $2.00;
- "Series C Conversion Price": $4.00;
- "Series D Conversion Price": $4.00;
- "Series E Conversion Price": $4.25.

The Applicable Conversion Price (as defined below in Section 6.1.3) for each such series shall be subject to adjustment as provided below in Section 6.5.

6.1.2 Series F Preferred Stock. Upon any conversion of Series F Preferred Stock into Common Stock pursuant to this Section 6, each such share of Series F Preferred Stock shall be converted into such number of fully paid and nonassessable shares of Common Stock as is determined by dividing $6.00 by the Series F Conversion Price, as such Series F Conversion Price is determined pursuant to Section 6.3.4.

6.1.3 Applicable Conversion Price. The term "Applicable Conversion Price" shall refer to the Series A Conversion Price with respect to the Series A Preferred Stock, the Series B Conversion Price with respect to the Series B Preferred Stock, the Series C Conversion Price with respect to the Series C Preferred Stock, the Series D Conversion Price with respect to the Series D Preferred Stock, the Series E Conversion Price with respect to the Series E Preferred Stock and the Series F Conversion price with respect to the Series F Preferred Stock, subject to adjustment as provided below in Section 6.5.

6.2 Voluntary Conversion.

6.2.1 Series A, Series B, Series D and Series E Preferred Stock. Each share of Series A, Series B, Series D, and Series E Preferred Stock shall be convertible into Common Stock, at the option of the holder thereof, at any time after the date of issuance of such share at the office of the Corporation or any transfer agent for such stock.

6.2.2 Series C Preferred Stock. Each share of Series C Preferred Stock shall be convertible into Common Stock, at the option of the holder thereof, at any time after April 1, 1998, at the office of the Corporation or any transfer agent for such stock.

6.3 Automatic Conversion.

6.3.1 Series A, Series B and Series D Preferred Stock. Each share of Series A, Series B and Series D Preferred Stock shall automatically be converted into shares of Common Stock at the then effective Applicable Conversion Price immediately upon the closing of the sale of the Corporation's Common Stock in a firm commitment, underwritten public offering registered under the Securities Act (other than a registration relating solely to a transaction under Rule 145 under the Securities Act or any successor thereto or to an employee benefit plan of the Corporation) at a public offering price (prior to underwriter commissions and expenses) equal to or exceeding $4.26 per share of Common Stock, as adjusted for any stock dividends, combinations or splits with respect to such shares, and the gross proceeds of which exceed $10,000,000. In addition, each share of Series A, Series B and Series D Preferred Stock shall automatically be converted into shares of Common Stock at the then effective Applicable Conversion Price for such particular series upon the conversion of a majority of the shares of such particular series then outstanding.

6.3.2 Series C Preferred Stock. Each share of Series C Preferred Stock shall automatically be converted into shares of Common Stock at the then effective Series C Conversion Price immediately upon the closing of the sale of the Corporation's Common Stock in a firm commitment, underwritten public offering registered under the Securities Act (other than a registration relating solely to a transaction under Rule 145 under the Securities Act or any successor thereto or to an employee benefit plan of the Corporation).

6.3.3 Series E Preferred Stock. Each share of Series E Preferred Stock shall automatically be converted into shares of Common Stock at the then effective Series E Conversion Price immediately upon the closing of the sale of the Corporation's Common Stock in a firm commitment, underwritten public offering registered under the Securities Act (other than a registration relating solely to a transaction under Rule 145 under the Securities Act or any successor thereto or to an employee benefit plan of the Corporation) at a public offering price (prior to underwriter commissions and expenses) equal to or exceeding $4.26 per share of Common Stock, as adjusted for any stock dividends, combinations or splits with respect to such shares, and the gross proceeds of which exceed $12,500,000. In addition, each share of Series E Preferred Stock shall automatically be converted into shares of Common Stock at the then effective Series E Conversion Price upon the conversion of a majority of the shares of Series E Preferred Stock then outstanding.

6.3.4 Series F Preferred Stock. Each share of Series F Preferred Stock shall automatically be converted into shares of Common Stock at the then effective Series F Conversion Price as follows:

(a) Initial Public Offering. Each share of Series F Preferred Stock shall automatically be converted into shares of Common Stock at the then effective Series F Conversion Price immediately upon the closing of the sale of the Corporation's Common Stock in a firm commitment, underwritten public offering registered under the Securities Act (other than a registration relating solely to a transaction under Rule 145 under the Securities Act of any successor thereto or to an employee benefit plan of the Corporation). In the event that the conversion of Series F Preferred Stock shall occur pursuant to this Section 6.3.4(a), the Series F Conversion Price shall equal eighty percent (80%) of the price per share of the Common Stock sold in such initial public offering (prior to any underwriter commissions, fees or discounts), and such conversion shall occur following any adjustment to the Series F Conversion Price pursuant to Section 6.5.

(b) Qualifying Financing. Each share of Series F Preferred Stock shall automatically be converted into shares of Common Stock at the then effective Series F Conversion Price immediately upon the closing of a non-public equity financing (including a transaction with multiple closings for the sale of shares of the same class at the same price per share within any twelve-month period) wherein the aggregate consideration for such issuance received by the Corporation is at least $10,000,000, of which at least $1,000,000 is from new investors, and the Corporation is not subjected to any restrictions imposed by the investors in such equity financing upon the use of such funds. In the event that the conversion of the Series F Preferred Stock into shares of

Common Stock shall occur pursuant to this Section 6.3.4(b), the Series F Conversion Price shall equal eighty percent (80%) of the price per share (on an "as converted" into Common Stock basis) paid in said non-public equity financing, and such conversion shall occur following any adjustment to the Series F Conversion Price pursuant to Section 6.5.

(c) Merger, etc. Each share of Series F Preferred Stock shall automatically be converted into shares of Common Stock at the then effective Series F Conversion Price immediately prior to the closing of a consolidation or merger of the Corporation with or into another corporation which would be treated as a liquidation, dissolution or winding up pursuant to Section 3.4 or the sale or conveyance to another corporation of all or substantially all of the assets of the Corporation, which results in aggregate consideration to the Corporation or its shareholders with a fair market value of at least $85,000,000, as determined in good faith by the Board of Directors of the Corporation. In the event that the conversion of the Series F Preferred Stock into shares of Common Stock shall occur pursuant to this Section 6.3.4(c), the Series F Conversion Price shall equal eighty percent (80%) of the value per share (on an "as converted" into Common Stock basis) realized by the Company's shareholders from the consideration received in said consolidation or merger, which value shall be determined by the mutual agreement between the Company and the Purchaser. If the Company and the Purchaser do not reach mutual agreement as to said value, then said value shall be determined by a nationally recognized investment banking firm which is mutually selected by the Company and the Purchaser, with the fees for obtaining said valuation determination to be borne equally by the Company and the Purchaser. Such conversion shall occur following any adjustment to the Series F Conversion Price pursuant to Section 6.5.

(d) Operational Plan. Each share of Series F Preferred Stock shall automatically be converted into shares of Common Stock at the then effective Series F Conversion Price immediately upon the adoption by resolution of the Corporation's Board of Directors of an operational plan for the Corporation which provides for the Corporation to continue its operations in the ordinary course of business through revenues, working capital or other resources through at least December 31, 1998 without any further infusion of capital from investors through debt or equity investment in the Corporation; provided, however, that any such operational plan, as determined in good faith by the Corporation's Board of Directors, must be consistent with the intent of the then current annual Product Development Plan pursuant to the Distribution Agreement by and between the Corporation and Cobe BCT, Inc., dated October 22, 1993. In the event that the conversion of the Series F Preferred Stock into shares of Common Stock shall occur pursuant to this Section 6.3.4(d), the Series F Conversion Price shall equal eighty percent (80%) of the fair market value of a share of Series F Preferred Stock, as determined by the mutual agreement of the Company and the Purchaser. If the Company and the Purchaser do not reach mutual agreement as to said value, then said value shall be determined by a nationally recognized investment banking firm which is mutually selected by the Company and the Purchaser, with the fees for obtaining said valuation determination to be borne equally by the Company and the Purchaser. Such

conversion shall occur following any adjustment to the Series F Conversion Price pursuant to Section 6.5.

(e) December 1, 1997. If not earlier converted pursuant to this Section 6.3.4, each share of Series F Preferred Stock shall automatically be converted into shares of Common Stock at the then effective Series F Conversion Price on December 1, 1997; provided, however, that in the event that prior to December 1, 1997, the Corporation has entered into a letter of intent (whether or not such letter of intent is intended to be binding or non-binding on the Corporation) which contemplates a transaction which would trigger automatic conversion of the Series F Preferred Stock into Common Stock pursuant to paragraph (a), (b) or (c) of this Section 6.3.4 and contemplates the consummation of the closing of such transaction on or before February 1, 1998, then each share of Series F Preferred Stock shall automatically be converted into shares of Common Stock at then effective Series F Conversion Price on February 2, 1998. In the event that the conversion of the Series F Preferred Stock into shares of Common Stock shall occur pursuant to this Section 6.3.4(e), the Series F Conversion Price shall be $4.65, as adjusted pursuant to Section 6.5.

6.4 Mechanics of Conversion. No fractional shares of Common Stock shall be issued upon conversion of shares of Preferred Stock. In lieu of any fractional shares to which the holder would otherwise be entitled, the Corporation shall pay cash equal to such fraction multiplied by the then effective Applicable Conversion Price for the series. Before any holder of Preferred Stock shall be entitled to convert the same into shares of Common Stock pursuant to Section 6.2, such holder shall surrender the certificate or certificates therefor at the principal office of the Corporation or of any transfer agent for such stock and shall give written notice to the Corporation at such office that such holder elects to convert the same and shall state therein the name or names of the nominees in which such holder wishes the certificate or certificates for shares of Common Stock to be issued. The Corporation shall, as soon as practicable thereafter, issue and deliver at such office to such holder of Preferred Stock, or to their respective nominee or nominees, a certificate or certificates for the number of shares of Common Stock to which such holder or nominee shall be entitled as aforesaid, together with cash in lieu of any fraction of a share. Such conversion shall be deemed to have been made immediately prior to the close of business on the date of such surrender of the shares of Preferred Stock to be converted, and the person or persons entitled to receive the shares of Common Stock issuable upon such conversion shall be treated for all purposes as the record holder or holders of such shares of Common Stock on such date.

6.5 Adjustments to Conversion Prices.

6.5.1 Special Definitions. For purposes of this Section 6.5, the following definitions shall apply:

(a) "Options" shall mean rights, options or warrants to subscribe for, purchase or otherwise acquire either Common Stock or Convertible Securities (defined below).

(b) "Original Issue Date" shall mean the date on which a share of a particular series of Preferred Stock was first issued.

(c) "Convertible Securities" shall mean any evidence of indebtedness, shares or other securities directly or indirectly convertible into or exchangeable for Common Stock.

(d) "Additional Shares of Common Stock" shall mean all shares of Common Stock issued (or, pursuant to Section 6(D)(3) deemed to be issued) by the Corporation after the Original Issue Date, other than shares of Common Stock issued or issuable:

(i) upon conversion of shares of Preferred Stock;

(ii) to the University of Michigan, Stephen G. Emerson, Bernhard O. Palsson, Michael F. Clarke, or to the officers, employees, consultants or directors of the Corporation pursuant to any stock purchase plan or arrangement, stock option plan, or other stock incentive plan or agreement approved by the Corporation's Board of Directors; or

(iii) by way of dividend or other distribution on shares excluded from the definition of Additional Shares of Common Stock by the foregoing clauses (i) or (ii), or this clause (iii).

6.5.2 No Adjustment of Applicable Conversion Price. No adjustment in the Applicable Conversion Prices for the series of Preferred Stock shall be made with respect to the issuance of Additional Shares of Common Stock or otherwise, unless the consideration per share (determined pursuant to Section 6.5.5 hereof) for an Additional Share of Common Stock issued or deemed to be issued by the Corporation is less than the Applicable Conversion Price for such series in effect on the date of, and immediately prior to, the issue of such Additional Share of Common Stock.

6.5.3 Deemed Issuances of Additional Shares of Common Stock.

(a) Options and Convertible Securities. In the event the Corporation at any time or from time to time after the Original Issue Date of a particular series shall issue any Options or Convertible Securities or shall fix a record date for the determination of holders of any class of securities entitled to receive any such Options or Convertible Securities, then the maximum number of shares (as set forth in the instrument relating thereto without regard to any provisions contained therein for a subsequent adjustment of such number) of Common Stock issuable upon the exercise of such Options or, in the case of Convertible Securities and Options therefor, the conversion or exchange of such Convertible Securities, shall be deemed to be Additional Shares of Common Stock issued as of the time of such issue or, in case such a record date shall have been fixed, as of the close of business on such record date, provided that Additional Shares of Common Stock shall not be deemed to have been issued with respect to the Preferred Stock unless the consideration per share (determined pursuant

to Section 6.5.5 hereof) of such Additional Shares of Common Stock would be less than the Applicable Conversion Price of such series in effect on the date of and immediately prior to such issue, or such record date, as the case may be, and provided further that in any case in which Additional shares of Common Stock are deemed to be issued the following provisions shall apply:

(i) Exercise or Conversion. No further adjustment in the

Applicable Conversion Price shall be made upon the subsequent issue of Convertible Securities or shares of Common Stock upon the exercise of such Options or conversion or exchange of such Convertible Securities.

(ii) Increase or Decrease. If such Options or Convertible

Securities by their terms provide, with the passage of time or otherwise, for any increase in the consideration payable to the Corporation, or decrease in the number of shares of Common Stock issuable, upon the exercise, conversion or exchange thereof, the Applicable Conversion Price computed upon the original issue thereof (or upon the occurrence of a record date with respect thereto), and any subsequent adjustments based thereon, shall, upon any such increase or decrease becoming effective, be recomputed to reflect such increase or decrease insofar as it affects such Options or the rights of conversion or exchange under such Convertible Securities.

(iii) Expiration. Upon the expiration of any such Options
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or any rights of conversion or exchange under such Convertible Securities which shall not have been exercised, the Applicable Conversion Prices computed upon the original issue thereof (or upon the occurrence of a record date with respect thereto), and any subsequent adjustments based thereon, shall, upon such expiration, be recomputed as follows:

(A) Underlying Common Stock. In the case of

Convertible Securities or Options for Common Stock, any such subsequent adjustments shall be recomputed as if the only Additional Shares of Common Stock issued were the shares of Common Stock, if any, actually issued upon the exercise of such Options or the conversion or exchange of such Convertible Securities and the consideration received therefor was the consideration actually received by the Corporation for the issue of all such Options, whether or not exercised, plus the consideration actually received by the Corporation upon such exercise, or for the issue of all such Convertible Securities which were actually converted or exchanged, plus the additional consideration, if any, actually received by the Corporation upon such conversion or exchange.

(B) Underlying Convertible Securities. In the case of

Options for Convertible Securities, any such subsequent adjustments shall be recomputed as if only the Convertible Securities, if any, actually issued upon the exercise thereof were issued at the time of issue of such Options, and the consideration received by the Corporation for the Additional Shares of Common Stock deemed to have been then issued was the consideration actually received by the Corporation for the issue of all such Options, whether or not exercised, plus the consideration deemed to have been

received by the Corporation (determined pursuant to Section 6.5.5 upon the issue of the Convertible Securities with respect to which such Options were actually exercised.

(iv) Limitation. No readjustment pursuant to clause (ii) or (iii) above shall have the effect of increasing the Applicable Conversion Price to an amount which exceeds the lower of (A) such Applicable Conversion Price on the original adjustment date, or (B) such Applicable Conversion Price that would have resulted from any issuance of Additional Shares of Common Stock between the original adjustment date and such readjustment date (nor shall any shares issued upon conversion prior to such readjustment be affected by such readjustment).

(v) Short-Term Options. In the case of any Options that expire by their terms not more than thirty (30) days after the date of issue thereof, no adjustment of the Applicable Conversion Price shall be made until the expiration or exercise of all such Options, whereupon such adjustment shall be made in the same manner as provided in clause (iii) above.

(vi) Date of Issuance. If such record date shall have been fixed and such Options or Convertible Securities are not issued on the date fixed therefor, the adjustment previously made in the Applicable Conversion Price which became effective on such record date shall be cancelled as of the close of business on such record date, and thereafter the Applicable Conversion Price shall be adjusted pursuant to this Section 6.5.3 as of the actual date of their issuance.

(b) Stock Dividends, Stock Distributions and Subdivisions. In the event the Corporation at any time or from time to time after the Original Issue Date shall declare or pay any dividend or make any other distribution on the Common Stock payable in Common Stock, or effect a subdivision of the outstanding shares of Common Stock (by reclassification or otherwise than by payment of a dividend in Common Stock), then and in any such event, Additional Shares of Common Stock shall be deemed to have been issued as follows:

(i) Dividend or Distribution. In the case of any such dividend or distribution, immediately after the close of business on the record date for the determination of holders of any class of securities entitled to receive such dividend or distribution.

(ii) Subdivision. In the case of any such subdivision, at the close of business on the date immediately prior to the date upon which such corporate action becomes effective.

If such record date shall have been fixed and such dividend shall not have been fully paid on the date fixed therefor, the adjustment previously made in the Applicable Conversion Price which became effective on such record date shall be cancelled as of the close of business on such record date, and thereafter the Applicable Conversion Price shall be adjusted pursuant to this Section 6.5.3 as of the time of actual payment of such dividend.

6.5.4 Anti-Dilution Adjustment of Applicable Conversion Price Upon Issuance of Additional Shares of Common Stock.

(a) Series A, Series B and Series E Preferred Stock. In the event the Corporation, at any time after the Original Issue Date, shall issue Additional Shares of Common Stock (including Additional Shares of Common Stock deemed to be issued pursuant to Section 6.5.3 but excluding Additional Shares of Common Stock issued pursuant to Section 6.5.3(b) which event is dealt with in Section 6.5.6 hereof) without consideration or for a consideration per share less than the Series A Conversion Price, Series B Conversion Price or Series E Conversion Price in effect on the date of and immediately prior to such issuance, then and in such event, the Applicable Conversion Price for the affected Series A, Series B and Series E Preferred Stock, respectively, shall be reduced, concurrently with such issuance, in order to increase the number of shares of Common Stock into which shares of such series of Preferred Stock is convertible, to a price (calculated to the nearest cent) determined by the following formula:

$$CP(1) = CP(O) \times \frac{CS + \frac{C}{CP(O)}}{CS + AS}$$

where:

CP(O) = the Applicable Conversion Price for Series A, Series B or Series E Preferred Stock in effect on the date of and immediately prior to such issuance;

CP(1) = the Applicable Conversion Price for Series A, Series B or Series E Preferred Stock as so adjusted;

CS = the number of shares of Common Stock outstanding immediately prior to such issuance (including shares of Common Stock issuable upon conversion or exercise of any Convertible Securities or Options);

C = the aggregate consideration received by the Corporation for the total number of Additional Shares of Common Stock so issued; and

AS = the number of such Additional Shares of Common Stock so issued.

Notwithstanding the foregoing, the Applicable Conversion Price for Series A, Series B or Series E Preferred Stock shall not be so reduced if the amount of such reduction would be an amount less than $0.01, but any such amount shall be carried forward and applied toward any subsequent reduction which, together with such amount and any other amount or amounts so carried forward, shall aggregate $0.01 or more.

(b) Series D Preferred Stock.

(i) Ratchet Adjustment. In the event the Corporation shall issue Additional Shares of Common Stock (including Additional Shares of Common Stock deemed to be issued pursuant to Section 6.5.3, but excluding Series D Preferred Stock and Additional Shares of Common Stock issued pursuant to Section 6.5.3(b) (which event is dealt with in Section 6.5.6 hereof)), either without consideration or for a consideration per share less than the Series D Conversion Price in effect on the date of and immediately prior to such issuance, wherein the aggregate consideration for such issuance received by the Corporation is at least $2,000,000, the following will be applicable:

(A) Single Transaction. In a private financing transaction (including a transaction with multiple closings for the sale of shares of the same class at the same price per share within any twelve-month period), the Series D Conversion Price shall be reduced concurrently with such issuance to a price equal to the consideration per share (as determined pursuant to Section 6.5.5 hereof) received by the Corporation for such Additional Shares of Common Stock; provided, however, that in no event shall the Series D Conversion Price be reduced to less than $3.00.

(B) Multiple Transactions. In multiple transactions at different per share prices during any twelve-month period, the Series D Conversion Price shall be reduced to an amount equal to the weighted average consideration received by the Corporation for such Additional Shares of Common Stock during such twelve-month period (but in no event shall the Series D Conversion Price be reduced to less than $3.00. Such weighted average consideration shall be determined by dividing the aggregate consideration received by the Corporation for the Additional Shares of Common Stock over such twelve-month period by the aggregate number of Additional Shares of Common Stock issued over the same period.

(ii) Formula Adjustment. In the event the Corporation shall issue Additional Shares of Common Stock (including Additional Shares of Common Stock deemed to be issued pursuant to Section 6.5.3 but excluding Series D Preferred Stock and Additional Shares of Common Stock issued pursuant to Section 6.5.3(b), which event is dealt with in Section 6.5.6 for a per share consideration less than the Series D Conversion Price in effect on the date of and immediately prior to such issuance, in a single transaction or in a series of transactions, and for aggregate consideration less than $2,000,000 during any twelve-month period, then the Series D Conversion Price shall be adjusted for such Additional Shares of Common Stock pursuant to the formula provided in Section 6.5.4(a) as if the Series D Preferred Stock were Series B Preferred Stock (except for the Applicable Conversion Price which shall be the Series D Conversion Price).

(iii) Single Adjustment. For purposes of this Section 6.5.4(b) any issuance of Additional Shares of Common Stock shall be included in only one twelve-month period (and in only one adjustment of the Series D Conversion Price), which period shall be the earliest twelve-month period which may be applicable (and

which adjustment shall be the adjustment to be made with respect to the earliest applicable twelve-month period). After the first twelve-month period with respect to which an adjustment is made to the Series D Conversion Price, any new twelve-month period shall be deemed to commence on the date of issuance of Additional Shares of Common Stock first occurring more than twelve months following the date of issuance of Additional Shares of Common Stock which caused the most recent prior twelve-month period to begin.

(c) Series F Preferred Stock. In the event the Corporation shall issue Additional Shares of Common Stock (including Additional Shares of Common Stock deemed to be issued pursuant to Section 6.5.3, but excluding Series F Preferred Stock and Additional Shares of Common Stock issued pursuant to Section 6.5.3(b), which event is dealt with in Section 6.5.6, either without consideration or for a consideration per share less than the Series F Conversion Price in effect on the date of and immediately prior to such issuance, in a private financing transaction (including a transaction with multiple closings for the sale of shares of the same class at the same price per share within any twelve-month period), wherein the aggregate consideration for such issuance received by the Corporation is at least $1,000,000, then the Series F Conversion Price shall be adjusted for such Additional Shares of Common Stock pursuant to the formula provided in Section 6.5.4(a) as if the Series F Preferred Stock were Series B Preferred Stock (except the Applicable Conversion Price shall be the Series F Conversion Price); provided, however, that the adjustment to the Series F Conversion Price provided for in this Section 6.5.4(c) shall apply only to the Corporation's first such private financing following the Original Issue Date of the Series F Preferred Stock.

6.5.5 Determination of Consideration. For purposes of this Section 6.5 the consideration received by the Corporation for the issue of any Additional Shares of Common Stock shall be computed as follows:

(a) Cash and Property. Such consideration shall be computed as follows:

(i) Cash. Insofar as it consists of cash, such consideration shall be computed at the aggregate amount of cash received by the Corporation;

(ii) Property. Insofar as it consists of property other than cash, such consideration shall be computed at the fair value thereof at the time of such issue, as determined in good faith by the Board of Directors; and

(iii) Combination. In the event Additional Shares of Common Stock are issued together with other shares or securities or other assets of the Corporation for consideration which covers both, such consideration shall be the proportion of such consideration so received, computed as provided in clauses (i) and (ii) above, as determined in good faith by the Board of Directors.

(b) Options and Convertible Securities. The consideration per share received by the Corporation for Additional Shares of Common Stock deemed to have been issued pursuant to Section 6.5.3(a), relating to Options and Convertible Securities, shall be determined by dividing:

(i) the total amount, if any, received or receivable by the Corporation as consideration for the issue of such Options or Convertible Securities, plus the minimum aggregate amount of additional consideration (as set forth in the instruments relating thereto, without regard to any provision contained therein for a subsequent adjustment of such consideration) payable to the Corporation upon the exercise of such Options or the conversion or exchange of such Convertible Securities, or in the case of Options for Convertible Securities, the exercise of such Options for Convertible Securities and the conversion or exchange of such Convertible Securities; by

(ii) the maximum number of shares of Common Stock (as set forth in the instruments relating thereto, without regard to any provision contained therein for a subsequent adjustment of such number) issuable upon the exercise of such Options or the conversion or exchange of such Convertible Securities.

6.5.6 Adjustment for Dividends or Combinations.

(a) Stock Dividends, Distributions or Subdivisions. In the event the Corporation shall issue Common Stock pursuant to Section 6.5.3(b) in a stock dividend, stock distribution or subdivision, the Applicable Conversion Price in effect immediately prior to such stock dividend, stock distribution or subdivision shall, concurrently with the effectiveness of such stock dividend, stock distribution or subdivision, be proportionately decreased.

(b) Combinations or Consolidations. In the event the outstanding shares of Common Stock shall be combined or consolidated, by reclassification or otherwise, into a lesser number of shares of Common Stock, the Applicable Conversion Price in effect immediately prior to such combination or consolidation shall, concurrently with the effectiveness of such combination or consolidation, be proportionately increased.

6.5.7 Adjustment for Merger or Reorganization. In the event of any consolidation or merger of the Corporation with or into another corporation or the sale or conveyance of all or substantially all of the assets of the Corporation to another corporation, each share of Series A, Series B, Series C, Series D and Series E Preferred Stock shall thereafter be convertible into the number of shares of stock or other securities or property to which a holder of the number of shares of Common Stock of the Corporation deliverable upon conversion of such series would have been entitled upon such consolidation, merger or conveyance, and, in any such case, appropriate adjustment (as determined by the Board of Directors) shall be made in the application of the provisions herein set forth with respect to the rights and interest thereafter of the holders of the series, in order that the provisions set forth herein (including provisions with respect to changes in and other adjustments of the Applicable Conversion Price) shall

thereafter be applicable, as nearly as reasonably may be, in relation to any shares of stock or other property thereafter deliverable upon the conversion of that series of Preferred Stock. However, in the case of any merger or consolidation which is treated as a liquidation, dissolution or winding up of the affairs of the Corporation pursuant to Section 3.4, each share of Series A, Series B, Series C, Series D and Series E Preferred Stock shall not be converted into shares of stock or other securities or property of the resulting corporation, but shall be cancelled and surrendered to the Corporation upon distribution to the holders of Series A, Series B, Series C, Series D and Series E Preferred Stock of all cash or other property to which they are entitled pursuant to Section 3 as a result of such transaction being treated as a liquidation, dissolution, or winding up under Section 3.4.

6.5.8 Adjustment to Series C Conversion Price for Distributions to Holders of Common Stock. In the event that the Corporation shall distribute to the holders of its Common Stock (whether pursuant to a reclassification, merger or consolidation or otherwise) evidences of its indebtedness or assets (including cash, securities, intangible assets or other property), then the Series C Conversion Price shall be adjusted so that the number of shares of Common Stock into which a share of Series C Preferred Stock is convertible equals the number of shares of Common Stock determined as follows: multiply the number of shares of Common Stock into which each share of Series C Preferred Stock is convertible at the then effective Series C Conversion Price by a fraction, the numerator of which shall be the Series C Conversion Price effective on the record date for determination of shareholders entitled to receive such distribution, and the denominator of which shall be such Series C Conversion Price less the fair market value of such property, as determined in good faith by the Board of Directors of the Corporation, distributed with respect to each share of Common Stock. Such adjustment to the Series C Conversion Price shall be made whenever any such distribution is made.

6.6 No Impairment. The Corporation will not, by amendment of these Restated Articles of Incorporation or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms to be observed or performed hereunder by the Corporation but will at all times in good faith assist in the carrying out of all the provisions of this Section 6 and in the taking of all such action as may be necessary or appropriate in order to protect the Conversion Rights of the holders of the Preferred Stock against impairment.

6.7 Certificate as to Adjustments. Upon the occurrence of each adjustment or readjustment of the Applicable Conversion Prices pursuant to this Section 6, the Corporation at its expense shall promptly compute such adjustments or readjustments in accordance with the terms hereof and furnish to each holder of Preferred Stock a certificate setting forth such adjustment or readjustment and showing in detail the facts upon which such adjustment or readjustment is based. The Corporation shall, upon the written request at any time from any holder of Preferred Stock, furnish or cause to be furnished to such holder a like certificate setting forth (i) such adjustments and readjustments, (ii) the Applicable Conversion Price at the time in effect, and (iii) the number of shares of Common Stock and the amount, if any, of other property which at

the time would be received upon the conversion of such holder's shares of Preferred Stock.

6.8 Notices of Record Date. In the event of any taking by the Corporation of a record of the holders of any class of securities (other than Preferred Stock) for the purposes of determining the holders thereof who are entitled to receive any dividend (other than a cash dividend which is the same as cash dividends paid in previous quarters) or other distribution, the Corporation shall mail to each holder of Preferred Stock at least ten (10) days prior to the date specified therein, a notice specifying the date on which any such record is to be taken for the purpose of such dividend or distribution.

6.9 Common Stock Reserved. The Corporation shall reserve and keep available out of its authorized but unissued Common Stock such number of shares of Common Stock as shall from time to time be sufficient to effect conversion of the Preferred Stock. The Corporation shall not take any corporate action which would require an adjustment in the number of shares of Common Stock into which any share of Preferred Stock is convertible unless either (i) immediately after such corporate action is taken and the transactions contemplated thereby are consummated, the number of authorized and unissued shares of Common Stock would be sufficient to effect the conversion of all outstanding shares of Preferred Stock at the Applicable Conversion Prices then in effect, or (ii) concurrently with the taking of such corporate action, the Corporation shall take such corporate action as, in the opinion of its counsel, may be necessary to increase its authorized and unissued shares of Common Stock to such number as shall be sufficient to provide for such conversion.

6.10 Taxes Upon Conversion of Series C Preferred Stock. The Corporation shall pay any and all taxes that may be payable in respect of the issue or delivery of shares of Common Stock on conversion of shares of Series C Preferred Stock pursuant hereto. The Corporation shall not, however, be required to pay any tax which may be payable in respect of any transfer involved in the issue and delivery of shares of Common Stock in a name other than that in which the shares of Series C Preferred Stock so converted were registered, and no such issue or delivery shall be made unless and until the person requesting such issue has paid to the Corporation the amount of any such tax or has established, to the satisfaction of the Corporation, that such tax has been paid.

RIDER TO ARTICLE VII

ARTICLE VII

1. Director Liability. A director of the Corporation shall not be personally liable to the Corporation or its shareholders for monetary damages for breach of fiduciary duty as a director. However, this provision does not eliminate or limit the liability of a director for any of the following:

(a) any breach of the director's duty of loyalty to the Corporation or its shareholders;

(b) any acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law;

(c) a violation of Section 551(1) of the Michigan Business Corporation Act, as amended (the "MBCA");

(d) a transaction from which the director derived an improper personal benefit; or

(e) an act or omission occurring before the date these Articles of Incorporation became effective in accordance with the pertinent provisions of the MBCA.

Any repeal, amendment or other modification of this Article VII shall not adversely affect any right or protection of a director of the Corporation existing at the time of such repeal, amendment or other modification.

If the MBCA is amended, after this Article becomes effective, to authorize corporate action further eliminating or limiting personal liability of directors, then the liability of directors shall be eliminated or limited to the fullest extent permitted by the MBCA as so amended.

2. Control Share Acquisitions. Chapter 7B of the MBCA, known as the "Stacey, Bennett, and Randall shareholder equity act," does not apply to control share acquisitions of shares of the Corporation.

3. Amendment of Bylaws. In furtherance and not in limitation of the powers conferred by statute, the Board of Directors of the Corporation is expressly authorized to make, alter or repeal the Bylaws of the Corporation.

4. Deletion of Article V. Effective immediately upon the IPO, Article V of these Articles of Incorporation shall be deleted in its entirety.

5. Deletion of Article VI. Effective immediately upon the IPO, Article VI of these Articles of Incorporation shall be deleted in its entirety.

EXHIBIT 4.1

NUMBER
AST

[LOGO OF AASTROM]

SHARES
COMMON STOCK

COMMON STOCK

SEE REVERSE FOR CERTAIN DEFINITIONS

INCORPORATED UNDER THE LAWS
OF THE STATE OF MICHIGAN

CUSIP 00253U107

This Certifies that

is the Owner of:

FULLY PAID AND NON-ASSESSABLE SHARES OF COMMON STOCK, NO PAR VALUE, OF

AASTROM BIOSCIENCES, INC.

transferable on the books of the Corporation by the holder hereof in person or by duly authorized attorney under surrender of this Certificate properly endorsed or accompanied by a proper assignment.

This certificate and the shares represented hereby are issued and shall be held subject to all of the provisions of the Articles of Incorporation and the Bylaws of the Corporation, and all amendments thereto, copies of which are on file at the principal offices the Corporation and the Transfer Agent, to all of which the holder of this Certificate by acceptance hereof consents.

This Certificate is not valid unless countersigned by the Transfer Agent and registered by the Registrar.

WITNESS the signatures of the Corporation's duly authorized officers.

Dated:

/s/ TODD E. SIMPSON
SECRETARY

/s/ R. DOUGLAS ARMSTRONG
PRESIDENT AND CHIEF EXECUTIVE OFFICER

COUNTERSIGNED AND REGISTERED:
CONTINENTAL STOCK TRANSFER & TRUST COMPANY
(JERSEY CITY, N.J.)
TRANSFER AGENT AND REGISTRAR
AUTHORIZED OFFICER

AASTROM BIOSCIENCES, INC.

THE CORPORATION WILL FURNISH WITHOUT CHARGE TO EACH SHAREHOLDER WHO SO REQUESTS THE POWERS, DESIGNATIONS, PREFERENCES AND RELATIVE, PARTICIPATING, OPTIONAL OR OTHER SPECIAL RIGHTS OF EACH CLASS OF STOCK OR SERIES THEREOF AND THE QUALIFICATIONS, LIMITATIONS OR RESTRICTIONS OF SUCH PREFERENCES AND/OR RIGHTS.

The following abbreviations, when used in the inscription on the face of this certificate, shall be construed as though they were written out in full according to applicable laws and regulations.

TEN COM - as tenants in common	UNIF GIT MIN ACT - .....CUSTODIAN.....
TEN ENT - as tenants by the entireties	(cust) (minor)
JT TEN - as joint tenants with right of survivorship and not as tenants in common	under or Uniform Gifts to Minors Act..... (state)

Additional abbreviations may also be used throughout in the above list.

For value received, _____ hereby sell, assign and transfer unto

Please insert social security or other
IDENTIFYING NUMBER OF ASSIGNEE
[_]

- ---
(PLEASE PRINT OR TYPEWRITE NAME AND ADDRESS, INCLUDING ZIP CODE OF ASSIGNEE)

- ---

- ---

- ---shares of the Capital Stock represented by the within Certificate, and do hereby irrevocably constitute and appoint.

- --- Attorney to transfer the said stock on the books of the within named Corporation with full power of substitution in the premises.

Dated

NOTICE:_____
THE SIGNATURE TO THIS ASSIGNMENT MUST CORRESPOND WITH THE NAME AS WRITTEN UPON THE FACE OF THE CERTIFICATE IN EVERY PARTICULAR, WITHOUT ALTERATION OR ENLARGEMENT OR ANY CHANGES WHATEVER.

SIGNATURE(S) GUARANTEED:_____
THE SIGNATURE(S) SHOULD OR GUARANTEED BY AN ELIGIBLE GUARANTOR INSTITUTION (BANKS, STOCKBROKERS, SAVING & LOAN ASSOCIATIONS AND CREDIT UNIONS WITH MEMBERSHIP IN AN APPROVED SIGNATURE GUARANTEE MEDALLON PROGRAM), PURSUANT TO SEC RULE 17AD-15.

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EXHIBIT 5.1

[LETTERHEAD OF PEPPER, HAMILTON & SCHEETZ]

December 19, 1996

Securities and Exchange Commission
Judiciary Plaza
450 Fifth Street, N.W.
Washington, D.C. 20549

Re: Aastrom Biosciences, Inc. Registration
Statement on Form S-1
File No. 333-15415

Gentlemen:

We have acted as special counsel to Aastrom Biosciences, Inc., a Michigan corporation (the "Company"), in connection with the preparation and filing with the Securities and Exchange Commission (the "Commission") of a registration statement (the "Registration Statement") of the Company on Form S-1 under the Securities Act of 1933, as amended (the "Act"). The Registration Statement relates to the proposed offer and sale by the Company of up to 3,737,500 shares (the "Shares") of the Company's Common Stock (the "Common Stock").

In this connection, we have examined the Registration Statement, including the exhibits thereto, the originals or copies, certified or otherwise identified to our satisfaction, of the Articles of Incorporation and the By-Laws of the Company amended to date, resolutions of the Company's Board of Directors and such other documents and corporate records relating to the Company, and the issuance and sale of the Shares as we have deemed appropriate. The opinion expressed herein is based exclusively on the applicable provisions of the Michigan Business Corporation Act as in effect on the date hereof.

On the basis of the foregoing, we are of the opinion that the Shares identified in the above-referenced Registration Statement to be issued and sold by the Company will be, upon effectiveness of the Registration Statement and receipt by the

Company of payment therefor, duly authorized, validly issued, fully paid, and non-assessable.

We hereby consent to the reference to our firm under the caption "Legal Matters" in the Registration Statement and to the filing of this opinion as an exhibit to the Registration Statement. Such consent does not constitute a consent under Section 7 of the Act, since we have not certified any part of such Registration Statement and do not otherwise come within the categories of persons whose consent is required under Section 7 of the Act or the rules and regulations of the Commission promulgated thereunder.

Very truly yours,

PEPPER, HAMILTON & SCHEETZ

By: /s/ MICHAEL B. STAEBLER

MICHAEL B. STAEBLER

EXHIBIT 10.41

COLLABORATIVE SUPPLY AGREEMENT

between

AASTROM BIOSCIENCES, INC.

and

MID-STATE PLASTICS

TABLE OF CONTENTS

APPENDICES:

COLLABORATIVE

SUPPLY AGREEMENT

THIS COLLABORATIVE SUPPLY AGREEMENT (this "Agreement") is made effective as of December 16, 1996 (the "Effective Date") by and between Aastrom Biosciences, Inc., a Michigan corporation with principal offices at Domino's Farms, Lobby L, Ann Arbor, Michigan 48106 ("AASTROM") and Anchor Advanced Products, Inc., Mid-State Plastics Division, a Delaware corporation with offices at U.S. Highway 220 North, Seagrove, North Carolina 27341 ("MSP").

W I T N E S S E T H:

WHEREAS, AASTROM is developing medical devices to implement proprietary cell production processes for cellular therapy procedures;

WHEREAS, such development work has led to the development by AASTROM of the AASTROM(TM) Cell Production System, a proprietary medical device for the production of human stem cells (the "AASTROM CPS"), consisting in part of single-use, sterile culture chambers;

WHEREAS, MSP has expertise and experience in plastic injection molding, in general, and in the production and assembly of plastic parts for products that are classified as medical devices under the regulations of the U.S. Food and Drug Administration (the "FDA"), in particular;

WHEREAS, AASTROM and MSP anticipate that the AASTROM CPS will be a Class III medical device requiring Pre-Marketing Approval under FDA regulations and a Class IIb device under regulations of the Medical Device Directives of the European Community (the "EC"); and

WHEREAS, in consideration of MSP's expertise and stated intention to be a cost effective and a capable manufacturer and supplier of Cell Cassettes and Components (as defined herein), AASTROM desires for MSP to be a preferred manufacturer of such Cell Cassettes and Components throughout the Term of this Agreement, and MSP desires to be such supplier for such period; and

WHEREAS, AASTROM and MSP desire for MSP to work with AASTROM to develop and produce Cell Cassettes for the AASTROM CPS.

NOW, THEREFORE, in consideration of these premises and the mutual undertakings hereinafter set forth, and for other good and valuable consideration given by AASTROM and MSP to each other, the receipt and sufficiency of which is hereby acknowledged, AASTROM and MSP, intending to be legally bound, agree as follows:

SECTION 1. DEFINITIONS.

The terms set forth below when used with capital letters shall have the meanings set forth below. Other terms are defined in the Sections of this Agreement pertinent to their definitions.

(a) "the Act" — The Act shall mean the Federal Food, Drug and Cosmetics Act, 21 U.S.C. 301, et seq. (1938), as amended, and the rules and regulations promulgated thereunder.

(b) "Cell Cassette(s)" — Cell Cassette shall mean a single-use, sterile cell culture chamber consisting of plastic injection molded and other parts made, assembled and encased in a plastic injection molded cassette manufactured in accordance with the DMR (as defined below) and used in the AASTROM CPS or similar products made by or for AASTROM, and all improvements and modifications to Components thereof that are intended to replace the then current Components.

(c) "Component(s)" — Component shall mean any component part of a Cell Cassette (e.g., the individual injection molded pieces, bioreactor assembly or fluid pathway tubing assembly).

(d) "Confidential Information" — Confidential Information shall mean any and all technical and non-technical information, (whether or not disclosed by AASTROM prior to the Effective Date under the terms of the Confidentiality Agreement between the Parties dated December 22, 1993), data, techniques, manufacturing procedures, know-how, discoveries, inventions, trade secrets, improvements or innovations that are maintained as proprietary and confidential by the Party owning or controlling the same; but Confidential Information shall not include information that (i) the Recipient can clearly demonstrate to have been in its possession at the time Confidential Information is disclosed to it, provided that, such information is not known by the Recipient to be subject to another confidentiality agreement with, or under other obligation of secrecy to, the Disclosing Party or another party, or (ii) becomes generally available to the public other than as a result of a disclosure by the Recipient, its agents or employees, or (iii) becomes available to the Recipient on a non-confidential basis from a source other than the Disclosing Party, provided that, the Recipient does not know, or have reason to know, that such source is bound by a confidentiality agreement with, or other obligation of secrecy to the Disclosing Party or another party, or (iv) the Recipient can clearly demonstrate to have developed itself independent of the Confidential Information, or (v) the Disclosing Party consents in writing may be disclosed by the Recipient.

(e) "Disclosing Party" Disclosing Party shall mean the Party disclosing Confidential Information.

(f) "DMR" DMR shall mean the Device Master Record for the Cell Cassette consisting of a compilation of records containing the design, formulation, Specifications (as defined below), complete manufacturing procedures, quality assurance requirements and labeling and packaging requirements.

(g) "Equipment" Equipment shall mean the molds and other equipment listed on Appendix I, annexed hereto, and categorized as being provided either by AASTROM or by MSP. AASTROM Equipment shall also include any equipment procured by MSP for manufacture of the Cell Cassettes in accordance with Section 21(b)(1).

(h) "GMPs" GMPs shall mean the then-current Good Manufacturing Practices published at 21 CFR Part 820, et seq.
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applicable to a Class III medical device, but only such GMPs that are applicable to the Cell Cassette or Components.

(i) "ISO" ISO shall mean the International Standards Organization.

(j) "Party or "Parties" Party shall mean either AASTROM or MSP, and Parties shall mean both AASTROM and MSP.

(k) "Phase I" Phase I shall mean the period of time from the Effective Date until AASTROM has approved the DMR in writing and has accepted delivery of two consecutive Shipment Lots.

(l) "Phase II" Phase II shall mean the period of time from the first day of the month following the month in which Phase I ends until the end of the Term.

(m) "Recipient" Recipient shall mean the Party receiving Confidential Information.

(n) "Requirements" Requirements shall mean the rolling three-month firm order forecast to be provided by AASTROM under Section 3(a), below, constituting at least sixty percent (60%) of AASTROM's then-current requirements for Cell Cassettes during the Term.

(o) "Shipment Lot" Shipment Lot shall initially mean 250 Cell Cassettes. On a quarterly basis, concurrently with the provision by AASTROM of its rolling twelve-month forecast, the Parties shall mutually review and by mutual written consent may revise the number of Cell Cassettes that constitute a Shipment Lot, for the purchase order to be submitted by AASTROM during such quarter, considering volume

requirements and anticipated delivery schedules. The mutually agreed upon quantity constituting the Shipment Lot shall be reflected in each purchase order submitted by AASTROM.

(p) "Specifications" Specifications shall mean the objective criteria, including, without limitation, design criteria and formulations, required by AASTROM for the production of Cell Cassettes and those contained in the DMR. Specifications shall include without limitation, the criteria for labeling and packaging, including graphics, and quality assurance requirements. Specifications for Cell Cassettes (including, without limitation, those to be contained in the DMR) are annexed hereto as Appendix II, as such Specifications may be changed pursuant to Section 6, below. Specifications shall not include any subjective criteria or any criteria with respect to the efficacy of either the Cell Chamber or the AASTROM CPS with respect to human cell production.

(q) "Term" Term shall mean the period of time from the Effective Date until the date upon which this Agreement expires or is earlier terminated pursuant to Section 17, below.

(r) "UCC" UCC means the Uniform Commercial Code as enacted in the State of New York and in effect during the Term.

SECTION 2. PURCHASE AND SALE.

AASTROM shall purchase from MSP at least AASTROM's Requirements of Cell Cassettes, and MSP shall manufacture, assemble and sell to AASTROM all of AASTROM's purchase orders for Cell Cassettes and Components, subject to the terms and conditions of this Agreement including, without limitation, AASTROM's rights to terminate this Agreement in whole or in part pursuant to Sections 6 or 17, below.

SECTION 3. FORECASTS; DELIVERY; SHIPMENT.

(a) Rolling Forecasts. Each calendar quarter during the Term, AASTROM shall provide MSP with a rolling forecast of the anticipated quantity of each model of Cell Cassettes AASTROM intends to purchase from MSP during each quarter of the following twelve-month period. The quantities given for the first three months of each twelve-month rolling forecast shall be firm orders for the immediately succeeding quarter (i.e., a three-month forecast given on January 1st would be deemed firm for the period April 1 - June 30) and AASTROM shall issue its purchase order therefor and note on such purchase order the number of units it will require for lot testing in accordance with Section 3(g), the method of shipment and AASTROM destination for delivery, the scheduled delivery date and the required documentation to be included with the Shipment Lot. MSP shall have no obligation to purchase materials or supplies without a purchase order from AASTROM except as is necessary to meet AASTROM's forecasted requirements. AASTROM shall pay MSP for labor,

materials, supplies and direct costs (as set forth in Appendix III) expended by MSP to fill purchase orders by AASTROM for Cell Cassettes in the event that they are not used to fulfill such purchase orders. Quantities forecasted beyond the three-month firm-order period are for planning purposes only.

(b) No Limit on Sales. MSP has no right to limit its sales of Cell Cassettes or Components to AASTROM to a maximum number of units for any period notwithstanding that AASTROM's Requirements may constitute less than 100% of AASTROM's total requirements; provided that, the volume of Cell Cassettes and Components ordered is reasonable in the light of forecasted amounts and previous delivery schedules. MSP shall have adequate capacity to meet AASTROM's then-current total firm-order requirements as forecasted pursuant to Section 3(a), above. MSP will take all steps to put in place additional adequate capacity, if needed, to meet AASTROM's future requirements as forecasted by AASTROM in accordance with Section 3(a), above; provided that, the Parties shall cooperate to afford a reasonable transition to the availability of such additional capacity.

(c) No Liens. Except with respect to MSP's purchase money security interest in Cell Cassettes granted pursuant to Section 5(d), below, MSP will deliver Cell Cassettes to AASTROM free and clear of all liens, claims and encumbrances.

(d) Delivery. MSP shall deliver Cell Cassettes, and upon AASTROM's request, any certifications, manufacturing records and test reports as are required for AASTROM to accept or reject Cell Cassettes under this Section 3, pursuant to delivery schedules in AASTROM's purchase orders; provided, that, such schedules are reasonable in light of forecasted amounts and previous delivery schedules. Delivery schedules in AASTROM's purchase orders shall not be less than fifteen (15) days after the date of submission by AASTROM of the purchase order without MSP's consent. In the event that AASTROM submits a purchase order in excess of its forecasted requirements for said quarter, MSP agrees to employ good faith efforts to supply such larger quantity of Cell Cassettes within such a reasonable period of time as the Parties shall mutually agree. MSP shall not deliver Cell Cassettes more than ten (10) days prior to scheduled delivery dates without AASTROM's prior consent. MSP shall not be responsible for failure to meet agreed-upon delivery dates if due to reasons of force majeure as set forth in Section 20, below. In the event of partial failure to deliver, MSP will have the right to receive payment pro rata for Cell Cassettes in fact delivered and not rejected by AASTROM under Section 3(f), below.

(e) Shipment. Shipment shall be made by MSP to AASTROM's designated U.S. locations, in accordance with AASTROM's purchase orders, F.O.B. destination. Risk of loss or damage in transit shall remain with MSP until delivered to the destination specified by AASTROM. AASTROM shall notify MSP within five (5) business days after receipt if there are any shortages or evidence of damage in transit and will cooperate with MSP in any claim for loss or damage in transit that MSP makes against a carrier. The method and route of shipment are at AASTROM's discretion as set forth in its purchase order. MSP will prepay all costs, insurance premiums, freight and other expenses incurred in shipment until delivered to the destination specified by AASTROM and such shipping costs shall be reimbursed by AASTROM at MSP's cost without mark-up. If AASTROM defaults in payment for Cell

Cassettes, MSP may suspend further shipments; however, continuation of shipments does not constitute a waiver of such default.

(f) Acceptance Procedures. Delivery of each Cell Cassette unit shall be deemed accepted by AASTROM unless MSP is notified in writing of AASTROM's rejection of such delivery within forty-five (45) days after the delivery date (the "Acceptance Period") due to non-conformance with the Specifications. In such case, AASTROM shall provide MSP with a written notice of rejection setting forth in detail the reason for rejection and return the rejected Shipment Lot, or portion thereof, to MSP at MSP's expense for repair or replacement. Upon receipt of AASTROM's notice of rejection and return of such Shipment Lot of part thereof, MSP shall (i) within ten (10) business days thereafter, provide AASTROM with a root-cause analysis and suggested corrective/preventative actions; and (ii) diligently replace the nonconforming Shipment Lot or part thereof by delivery of nondefective conforming units within a reasonable time (not to exceed thirty (30) calendar days after notification) and endeavor to resolve the issues related to the rejection. MSP shall credit against the purchase price of Cell Cassettes, AASTROM's out of pocket costs of testing, including, without limitation, destructive testing of failed Shipment Lots. AASTROM shall invoice MSP for such costs, which shall be subject to reasonable audit by MSP or its representative. MSP reserves the right, at MSP's expense, to have one or more representatives present at any inspection conducted by AASTROM and to verify the results of any such inspection and rejection of Shipment Lots. MSP shall have the right to use conforming units or parts therefrom as replacement units provided that such units or parts therefrom are in conformance with Specifications. In the event MSP cannot resolve all nonconformities and deliver conforming replacement Cell Cassettes as required herein MSP shall issue to AASTROM a credit for the price of each unit rejected and AASTROM may pursue its remedies pursuant to this Agreement, including but not limited to Section 17, below. AASTROM shall pay for repair or replacement for defective Cell Cassettes (or shall not receive a credit therefor) only to the extent that rejection is due to a defective component supplied directly by AASTROM. In the event that MSP's delivery of Cell Cassettes fails to conform to the quantity specified in AASTROM's purchase order, AASTROM may, but shall not be obligated to, accept such partial shipment and MSP shall deliver any shortfall in delivery quantity within five (5) calendar days. Notwithstanding the foregoing, AASTROM agrees to accept partial shipments from MSP provided that the quantity delivered is at least ninety percent (90%) of the quantity specified in AASTROM's purchase order, but only if AASTROM may readily use such partial shipment for its intended purposes, and AASTROM also agrees to use commercially reasonable efforts to accept partial shipments of quantities of less than ninety percent (90%) of the quantity specified in AASTROM's purchase order, but only if AASTROM may readily use such partial shipment for its intended purpose(s). Any acceptance of partial shipments by AASTROM shall not be deemed to waive AASTROM's remedies under Section 17(d) and AASTROM shall be entitled to a payment credit reflecting the extent of such unit shortfall under a partial shipment. In the event MSP fails to deliver any shortfall in quantity within such five (5) day period, AASTROM may pursue its remedies pursuant to this Agreement.

(g) Lot Testing. During the Acceptance Period, AASTROM shall have the right, but not the obligation, to conduct lot testing on a statistically significant number of units from each

Shipment Lot. At the time of submission of AASTROM's purchase orders in accordance with Section 3(a), AASTROM shall note on such purchase order the number of units it requires for lot testing. Notwithstanding Section 4(a), MSP agrees to provide such testing units to AASTROM at MSP's cost to manufacture such units (without mark-up) provided that the number of units requested is reasonable given the number of units ordered, and provided further that any units provided by MSP for lot testing shall not be resold by AASTROM. Any lot testing conducted by AASTROM pursuant to this section shall not be deemed to relieve MSP of any of its warranties or obligations hereunder.

SECTION 4. PRICES.

(a) Cell Cassette Prices. Prices for Cell Cassettes purchased during Phase I and Phase II shall be determined as shown in Appendix III, hereto. Prices are exclusive of all taxes of any nature imposed by any governmental authority, except taxes imposed on the income or profits of MSP. All such taxes shall be for AASTROM's account, whether or not collected, advanced or paid by MSP, and shall be paid by AASTROM, without mark-up, upon MSP's invoice, unless AASTROM timely provides proper tax exemption documents.

(b) Phase I Collaboration Charge. In addition to being paid for Cell Cassettes ordered by AASTROM during Phase I, AASTROM shall compensate MSP for MSP's assistance and collaboration, as described in Section 9, below, on the basis set forth in Appendix III. MSP shall prepare and submit to AASTROM a budget of Phase I assistance and collaboration costs and expenses for AASTROM's approval. Once approved, AASTROM may issue purchase orders authorizing the commencement of collaborative work by MSP. MSP shall submit to AASTROM a monthly invoice referencing AASTROM's purchase order for assistance and collaboration, together with such supporting details as AASTROM may reasonably request. Assistance and collaboration costs shall not exceed the budget approved by AASTROM without AASTROM's prior written consent. The Parties acknowledge that budgets may need to be revised to reflect updated cost estimates; however, any changes to approved budgets will require the Parties' prior written consent.

(c) Component Order and Prices. From time to time throughout the Term, AASTROM may submit to MSP purchase orders for Components and MSP shall manufacture and sell to AASTROM such Components in accordance with the terms of this Agreement for the manufacture of Cell Cassettes, as they may be applicable, excepting only the provisions of Sections 3(a) with regard to references to AASTROM's obligation to forecast and purchase its specific Requirements from MSP. Prices for any Components purchased by AASTROM during the Term shall be quoted separately by MSP at the time of order with such quoted price not to exceed MSP's actual manufacturing costs to produce such Components, multiplied by the applicable Phase II Mark-Up Rates (as set forth in Section B.3 of Appendix III) then in effect for the forecasted annual volume of Cell Cassettes to be purchased by AASTROM.

(d) Best Diligent Efforts. At all times during the Term of this Agreement, MSP shall use its best diligent efforts to manufacture Cell Cassettes, procure components and perform other services as provided in this Agreement at the lowest cost reasonably practicable.

Furthermore, subject to Section 21 below, it is the explicit understanding of the parties that MSP will, on a proactive basis and at no additional cost to AASTROM, seek out additional methods and means that will lead to reduced costs, quality improvements and increased efficiency with regard to the manufacture of Cell Cassettes.

SECTION 5. PAYMENT AND COLLECTION.

(a) Payment. AASTROM shall pay MSP the full amount of the purchase price of Cell Cassettes upon the due date set forth on MSP's invoice; provided, however invoices for Cell Cassettes rightfully rejected by AASTROM shall not be due unless and until repair or replacement units are provided by MSP. With respect to Cell Cassettes and Components, terms of payment shall be net 45 days from the date of delivery by MSP pursuant to Section 3, above, and the submission by MSP of an itemized invoice in the form attached hereto in Appendix IV including the purchase price for such Cell Cassettes calculated in accordance with Appendix III, together with such supporting documents as AASTROM may reasonably request. Accounts unpaid beyond their due date will bear interest at a rate, to be determined by MSP in its sole, absolute discretion, not to exceed the higher of 1 1/2% per month on the unpaid balance or the highest rate legally permissible in the state of Michigan. If payment by AASTROM is improperly withheld and MSP retains an agency and/or attorneys to collect amounts overdue, all collection costs, including without limitation, reasonable attorneys' fees, shall be payable by AASTROM.

(b) Deductions from Invoice. AASTROM will promptly notify MSP of any disputed invoice. It is the intention of the Parties that disputed invoices will be settled by the Parties in good faith negotiations prior to the invoice due date. However, unless MSP issues a credit memo, or unless AASTROM rightfully rejects Cell Cassettes or notifies MSP of its acceptance of a partial shipment pursuant to Section 3(f), AASTROM shall make full payment of MSP invoices for accepted Cell Cassettes without deduction and regardless of any claim, counterclaim or setoff AASTROM may have against MSP, except as such setoff may otherwise be permitted under Appendix III, Section 3(f) or Section 12(d). Any such claim, counterclaim or setoff shall be resolved exclusively as a separate matter pursuant to Section 24, below.

(c) Relief for Non-Payment. In the event payment for Cell Cassettes becomes past due, MSP will have the option, in addition to any other rights it may have under the UCC or otherwise, in its sole, absolute discretion, to cancel or delay shipment or orders of AASTROM previously accepted, to declare all sums owing from AASTROM to be immediately due and payable, and to cancel credit previously extended.

SECTION 6. SPECIFICATIONS, DMR AND CHANGES.

(a) Specifications. MSP shall manufacture and assemble Cell Cassettes to then-current Specifications and no part of MSP's responsibility may be subcontracted without the prior written consent of AASTROM.

(b) Establish DMR. As further described in Section 9, MSP shall prepare a DMR covering the manufacture of the Cell Cassettes from the Specifications, other requirements and

technical information to be provided by AASTROM, and manufacturing and quality processes and procedures established by MSP. AASTROM review and approve the DMR to assure that it accurately reflects the Specifications.

(c) Specification and DMR Changes. Notwithstanding any provision of this Agreement to the contrary, MSP shall not have the right to change the Specifications without the prior written consent of AASTROM. If a Party desires a change to Specifications or any part of the DMR, it shall submit a proposed change, setting forth a detailed description and drawings thereof. Subject to Section 6(d), the Parties shall work in good faith as expeditiously as is reasonable to reach a determination whether a change to Specifications will be made and, if so, when such change will be implemented and the effect that such change will have, if any, on quantities, quality criteria, price and delivery dates.

(d) MSP Refusal to Change Specification. If AASTROM proposes a change to Specifications that it states is material to the efficacy, safety or reliability of the Cell Cassette or which AASTROM reasonably demonstrates is necessary for AASTROM to remain cost competitive, and if such change is currently manufacturable, then upon the refusal of MSP to implement such change, AASTROM shall have the right, without liability, in accordance with Section 17(b), below, to terminate this Agreement on a prospective basis for all Requirements incorporating the changed Specifications that have not yet been submitted on purchase orders. The Parties will cooperate to implement changes to Specifications in an orderly manner and to afford MSP a reasonable transition time to the extent necessary to effect such Specification changes.

(e) Other Changes. AASTROM may cancel or change quantities or delivery dates under any purchase order upon terms that make MSP whole for its costs in respect of materials and work-in-process as set forth in Section 3(a).

(f) Returns. Except as expressly provided in this Agreement including, without limitation, as provided in Sections 3(f) and 12(a), below, in no case may Cell Cassettes be returned to MSP without first obtaining MSP's written consent which will not be unreasonably withheld.

SECTION 7. MSP's FACILITIES AND MANUFACTURING ENVIRONMENT. With respect to its manufacturing facilities and assembly obligations applicable to the production of Cell Cassettes, MSP shall:

(a) be registered with the FDA as a Medical Device Establishment to the extent required by the Act. As such, MSP will maintain facility registrations and inspection records required by the FDA;

(b) have and maintain a Class 100,000 certified assembly area operating at less than 20,000 particulate-count and arrange for annual certification to be conducted by an independent testing service. A routine monitoring plan, to include at least monthly testing, will also be established and performed by MSP (the foregoing routine monitoring plan shall be subject to AASTROM's approval, which approval shall not be unreasonably withheld);

(c) maintain adequate personnel and facilities, including but not limited to sufficient engineering support and assembly resources to support the manufacture of Cell Cassettes ordered by AASTROM. MSP will provide AASTROM annually with a project plan to meet AASTROM's forecast annual Requirements and AASTROM will provide timely comments thereon;

(d) manufacture and assemble all of the Cell Cassettes in compliance with GMPs as required by the Act; provided that, AASTROM, as the owner of the DMR, shall
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have the responsibility for approving the DMR and any changes thereto as established by MSP in accordance with Section 9, below;

(e) achieve EN29002 and EN46002 or EN46001 certification by a notified body by September 17, 1996, establish, maintain and document a quality system as may be required as a condition of such certifications;

(f) together with the Equipment to be provided by AASTROM, provide and maintain adequate manufacturing Equipment to perform its obligations under Section 6 of this Agreement;

(g) have and maintain adequate procedures for procurement, acceptance, supplier quality audits and material control of all component parts to be used or incorporated in Cell Cassettes;

(h) report to AASTROM in writing any known adverse events, circumstances or potential problems relating to MSP's FDA registration or its EC certifications referred to in Section 7(e), above;

(i) allow AASTROM and its agents, at their own cost and risk, to review and inspect MSP's facilities, FDA compliance files and correspondence to and from the FDA and notified bodies applicable to this Agreement; and

(j) maintain files of all Cell Cassette-related complaints received by MSP from AASTROM and conduct failure investigations, including establishing written records with conclusions and corrective measures, for all such Cell Cassettes complaints involving a failure to meet Specifications.

SECTION 8. MSP MANUFACTURING PROCEDURES. MSP's obligation to manufacture Cell
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Cassettes shall be to deliver Cell Cassettes as described in Section 6(a), above and in accordance with the DMR. Without expanding or diminishing that obligation, and for purposes of illustration only, it is contemplated by the Parties that such obligation shall encompass:

(a) injection molding and processing the main Components of the bioreactor device for the Cell Cassette including any sonic welding and vacuum plasma surface treatment operations;

(b) assembling the aforesaid bioreactor devices utilizing fixturing provided by AASTROM, or alternative fixturing as developed;

(c) injection molding components of the Cell Cassette fluid pathway tubing assembly and supplying them to the tubing kit subcontractor;

(d) injection molding non-fluid contact enclosure components for the Cell Cassette using molds supplied by AASTROM;

(e) procuring the waste reservoir and media supply enclosure from an AASTROM-approved source;

(f) assembling the enclosure, the waste reservoir and media supply enclosure, the bioreactor and the fluid pathway tubing assembly described in Sections 8(d), (e), (b) and (c), above, respectively;

(g) providing AASTROM with a proposal for the procurement of components and for assembly of the fluid pathway tubing assembly and, once approved by AASTROM, assuming assembly of the fluid pathway tubing assembly;

(h) performing testing in accordance with the DMR;

(i) validating Cell Cassettes to the applicable sterilization assurance level; and

(j) performing on-going vendor audits and validation procedures, as required by GMPs, and conducting a reasonable incoming inspection of purchased components for compliance with Specifications.

SECTION 9. COLLABORATIVE AND OTHER RESPONSIBILITIES OF THE PARTIES.

(a) Overview. AASTROM shall be responsible for the establishment and updating of the design, development, Specifications and regulatory approval, and for the marketing and sale (collectively, the "Development") of the Cell Cassette and Components. MSP shall collaborate in that effort as set forth in Section 9(c), below. MSP shall be responsible for manufacturing the Cell Cassettes and Components to Specifications and sterilization as provided in Section 6(a) above, and in accordance with the DMR, including responsibility for manufacturing, assembly and sterilization procedures.

(b) Responsibilities of AASTROM. AASTROM shall be responsible for establishing the Specifications and any modifications thereto, obtaining all FDA and foreign regulatory approvals with respect to the Development and commercialization of the Cell Cassette and Components, including, without limitation, PMAs and CE Mark and, except, as expressly assumed by MSP under this Agreement, shall be responsible for all laws, rules and regulations governing the Development of the Cell Cassette and Components. AASTROM shall develop final Specifications and functional requirements for the Cell Cassette including all of its Components and shall select materials and determine the design, quality assurance requirements and test criteria in consultation with MSP, design contractors and other manufacturing subcontractors as AASTROM in its sole, absolute discretion deems appropriate. AASTROM shall establish all process procedures to perform the required tissue

culture treatment of portions of the Cell Cassette and Components and will provide MSP with the AASTROM Equipment and with training in areas of AASTROM's expertise reasonably necessary or proper for MSP to perform its manufacturing obligations under this Agreement. AASTROM shall perform simulated use tests and reliability demonstration tests to assist MSP in the proper manufacture of the Cell Cassette and Components. AASTROM shall have final approval for choosing all suppliers to MSP of Components used for Cell Cassettes and shall have complete responsibility (other than for proper assembly into the Cell Cassette) for Components supplied directly by AASTROM. Suppliers shall generally be chosen after AASTROM obtains advice from MSP, but AASTROM shall not choose a supplier that MSP states will materially impede MSP's obligations under this Agreement. Prices of supplied Components shall be subject to prior written approval by AASTROM. Notwithstanding the foregoing, nothing in this Section 9 shall be deemed to relieve MSP of its responsibility under this Agreement to manufacture the Cell Cassettes and Components to Specifications, and in accordance with the DMR.

(c) MSP's Collaboration. MSP will collaborate with AASTROM in its Development efforts as set forth in this Section 9(c), but in no event shall MSP be responsible as a result of such collaboration under this Agreement or otherwise for the Development, including, without limitation, the efficacy, of the Cell Cassette. MSP shall, as requested by AASTROM, collaborate with AASTROM and the other design contractors to assist AASTROM in selecting materials and determining manufacturing process development for the Cell Cassette. Notwithstanding the foregoing, MSP shall be responsible only for the manufacture, assembly and sterilization of the Cell Cassette as provided in Section 6(a), above, and otherwise upon the terms and conditions of this Agreement, and not for its Development.

(d) Other Responsibilities of MSP. In connection with MSP's manufacturing and assembly obligations under this Agreement, MSP shall:

(1) prepare the DMR in accordance with the then-current manufacturing Specifications and the criteria for testing the Cell Cassette, all to be provided by AASTROM. Manufacturing documentation shall be owned by AASTROM and shall consist of: (i) the DMR documentation; (ii) documentation of Specifications and drawings for Cell Cassette parts to be provided by MSP or acquired by MSP from approved vendors; (iii) test and acceptance procedures and criteria documentation; (iv) subassembly specifications, drawings and requirements documentation; (v) manufacturing instructions and procedures documentation; and (vi) quality instructions and procedures documentation;

(2) prepare the DMR as set forth in Section 6(b), above, and maintain the DMR in accordance with a documented change management system reasonably acceptable to AASTROM which system shall include the approval of all Cell Cassette manufacturing changes by AASTROM prior to implementation by MSP. The foregoing change management system documentation shall also include the history of all changes including validation and/or rationale and shall be owned by AASTROM;

(3) prepare a gamma sterilization validation plan, utilizing mutually agreeable subcontractors, and conduct or subcontract the required laboratory tests, including product

tests and environmental monitoring, to achieve a 10/-6/ sterility assurance level per ANSI/AAMI SY32-1991 for the Cell Cassette;

(4) to the extent required for submittal by AASTROM to the FDA or other regulatory authorities in connection with the Cell Cassette, prepare a detailed description of MSP's manufacturing methods, processes, procedures and facility applicable to the manufacture and testing of the Cell Cassette as requested by AASTROM;

(5) establish a finished device packaging plan, utilizing mutually agreeable subcontractors, conduct packaging validation, and establish final packaging and shipping specifications based upon functional requirements provided by AASTROM;

(6) provide engineering and other support for validation of the Cell Cassette manufacturing process and for sterility validation for each Shipment Lot;

(7) use reasonable efforts to train AASTROM's technical representatives at MSP's facilities, at AASTROM's request and expense from time to time during the Term in all applicable procedures for manufacture of the Cell Cassettes. Such representatives shall sign reasonable non-disclosure agreements in accordance with Section 16(b) consistent with the terms of this Agreement to protect MSP's Confidential Information. AASTROM and such representatives shall also comply with all of MSP's reasonable regulations with regard to access by visitors during such training sessions and MSP reserves the right to deny access to its facilities by non-AASTROM employees provided that such access shall not be unreasonably withheld; and

(8) develop a quality measurement system acceptable to AASTROM and report in a manner reasonably satisfactory to AASTROM on a monthly basis with regard to MSP's progress. This system shall include, at a minimum, (i) metrics on the percent of non-conforming Cell Cassettes, including trending data; (ii) the percentage of the top five defects; and (iii) a FRACAS (Failure Report Analysis and Corrective Action System) detailing the root-cause analysis, corrective actions taken, and proof of implementation.

SECTION 10. EQUIPMENT.

(a) Ownership. The Parties acknowledge that the Equipment is the sole and
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exclusive property of the Party indicated on Appendix I as such Appendix may be augmented by mutual agreement of the Parties from time to time. Equipment shall be located at the premises of MSP in Seagrove, North Carolina or other facilities of MSP as the Parties may agree. Except for the sole purpose of performing maintenance, none of the Equipment owned by AASTROM shall be relocated by MSP without the prior written consent of AASTROM. It is understood that AASTROM shall have the right to remove the Equipment it owns from MSP's facilities at any time upon reasonable notice to MSP, except that if such removal shall impede MSP's performance under this Agreement, MSP shall so notify AASTROM and such Equipment shall not be removed until the condition of such impedance shall no longer pertain. Notwithstanding the foregoing, in the event that MSP's performance is suspended by reason of force majeure, AASTROM shall be entitled to remove its Equipment to enable AASTROM

to continue to manufacture Cell Cassettes. Upon removal of its Equipment, AASTROM shall pay MSP its reasonable costs of disassembly and freight to a location of AASTROM's choice. AASTROM shall return such Equipment to MSP's facilities upon MSP's demonstration (to the extent it can reasonably do so without the use of such Equipment) to AASTROM's reasonable satisfaction of its capability to resume manufacture of the Cell Cassettes. Equipment added to Appendix I shall be owned by the Party that paid for it or in accordance with Section 21(b), as applicable. Upon expiration or earlier termination of this Agreement, and the payment by AASTROM of all outstanding invoices, MSP shall, within thirty (30) days thereafter, return all of AASTROM's Equipment to AASTROM's facilities (or other location designated by AASTROM in writing) with all reasonable packing, transportation and insurance costs to be paid by AASTROM.

(b) Identification Tags. Identification tags supplied by AASTROM containing information relating to its ownership of Equipment shall be affixed by MSP and such tags shall not be removed by MSP without the written approval of AASTROM.

(c) Liens and Insurance. MSP shall not impair the right, title and interest of AASTROM in and to the Equipment it owns, nor shall MSP allow any lien or encumbrance to be levied upon such Equipment. During the Term, and until Equipment owned by AASTROM is removed by AASTROM or abandoned, MSP shall carry and maintain, at its expense, all-risk property insurance covering the Equipment at full replacement cost.

(d) Inspection. AASTROM shall have the right, at reasonable times during normal business hours and upon reasonable notice, to inspect its Equipment from time to time to ensure that it is being maintained in accordance with Section 10(f), below, and utilized in a manner consistent with the provisions of this Agreement.

(e) No Modification. MSP will not alter or modify AASTROM's Equipment in any material way without the prior consent of AASTROM. If AASTROM gives such consent, any alteration or modification shall become the property of AASTROM.

(f) Maintenance. MSP will conduct day-to-day preventative and operational maintenance on all of the Equipment. Such day-to-day maintenance will be adequate: (i) to maintain the Equipment in good working order and condition, ordinary wear and tear and casualty excepted; (ii) to meet all expressed conditions required by manufacturers' written warranties, if any, given with the Equipment so that such warranties remain in effect for their stated terms; provided that MSP has received from AASTROM a copy of such warranty; and (iii) to promote adherence to agreed-upon quality standards as well as the Specifications and to help minimize unscheduled downtime.

(g) Use. Equipment owned by AASTROM shall be used solely for the benefit of AASTROM to produce Cell Cassettes.

SECTION 11. RIGHT OF INSPECTION.

(a) Rights of Inspection. In addition to AASTROM's right to inspect Cell Cassettes upon delivery pursuant to Section 3, AASTROM shall have the following rights of inspection, each such right to be exercised, if at all, at its own cost and expense:

(1) to inspect, sample and test Cell Cassette work-in-progress and review process control reports and manufacturing records at MSP's facilities upon at least three (3) work days' prior notice to MSP and shall consult with MSP if it believes that its inspection shows MSP is failing to meet its obligations under this Agreement (in such event the parties will work together toward resolution of any such failure); and

(2) to inspect, sample and test Cell Cassettes at MSP's facilities after notice by MSP that a Shipment Lot is ready for shipment to a sterilizer location. Such inspection must be conducted, if at all, within ten (10) days after receipt of such notice.

(b) Waiver. AASTROM's right to inspect under this Section 11 and any inspection by AASTROM hereunder, or AASTROM's acceptance of or payment for Cell Cassettes, shall not be deemed to relieve MSP of any of its obligations under the terms of this Agreement nor a waiver by AASTROM of its rights to inspect upon delivery pursuant to Section 3 or with respect to breach of warranty as set forth in Section 12, below.

(c) Self-Certification. The Parties shall work together toward self-certification pursuant to which MSP will conduct in-process controls and finished device testing in order to augment, and reduce the need for, exercise by AASTROM of its inspection rights.

(d) Records; Inspection. For at least two years after the expiration or any earlier termination of this Agreement (under Section 17 below), MSP shall retain accurate and complete records with respect to its work and manufacture of the Cell Cassettes to the extent necessary to reasonably satisfy all applicable FDA and EC requirements and to verify the time worked and material and other costs invoiced to AASTROM. MSP shall make available to AASTROM, cost information that AASTROM may reasonably request in connection with the establishment of Phase II pricing in accordance with Appendix III. Upon reasonable notice to MSP, AASTROM and/or its designated independent auditor may inspect and conduct a reasonable audit on such records. If MSP does not agree with the results of the audit, then the dispute shall be resolved pursuant to Section 24, below. Furthermore, if the results of such audit indicate an overcharge by MSP of ten percent (10%) or more of AASTROM's applicable purchase price from MSP, MSP shall reimburse AASTROM for the cost of performing such audit, otherwise the cost of such audit shall be borne by AASTROM. If such audit shows an overcharge by MSP of AASTROM's applicable purchase price from MSP, MSP shall, upon its review of said audit, promptly reimburse AASTROM for such overcharge plus interest at a rate of 11/2%/month since the date of payment by AASTROM of the applicable invoice(s).

SECTION 12. WARRANTY; RECALLS.

(a) Warranty. MSP warrants to AASTROM that each Cell Cassette and Component shall comply with the then-current Specifications and shall be free from defects in material and workmanship and shall be manufactured and assembled in compliance with the DMR and all United States federal, state and local laws, rules and regulations and with all applicable EN29002 and EN46002 requirements (and any amendments thereto and replacements thereof), applicable at the time of manufacture. For a period of one (1) year after delivery to AASTROM, AASTROM shall have the right to notify MSP that a Cell Cassette or Component does not conform to this warranty. Such notice shall set forth in detail the reason for such non-conformance. AASTROM shall prepare for shipment and return to MSP allegedly defective Cell Cassette or Component in accordance with MSP's written directions and at MSP's cost. Upon reasonable verification of noncompliance with this warranty, MSP shall repair a defective and non-conforming Cell Cassette or Component or, at its option, replace a defective Cell Cassette or Component with non-defective, conforming units within thirty (30) days after receipt of notice from AASTROM of the nonconformance. However, if in MSP's reasonable judgment such repair or replacement cannot be accomplished within said time, MSP shall issue to AASTROM a credit for the price of each unit of Cell Cassette or Component verified as defective. All shipping and other costs incurred in connection with the repair or replacement of all such nonconforming Cell Cassette or Component units shall be paid by MSP. The foregoing warranty shall not apply to the extent that the non-conformance is due to a defective component supplied by AASTROM or compliance with the Specifications as supplied by AASTROM. Notwithstanding any statutory or other law to the contrary, it is understood that the foregoing one (1) year warranty period begins on delivery of the Cell Cassette or Component to AASTROM regardless as to when a defect in a Cell Cassette or Component may be discovered.

(b) DISCLAIMER. THE WARRANTY SET FORTH IN SECTION 12(a), ABOVE, IS GIVEN TO AASTROM ONLY AND IS IN LIEU OF ALL OTHER WARRANTIES, WHETHER EXPRESSED BY AFFIRMATION, PROMISE, DESCRIPTION, MODEL, SAMPLE OR OTHERWISE. ANY AND ALL OTHER WARRANTIES, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR USE OR PURPOSE, ARE HEREBY DISCLAIMED. THE REMEDIES SET FORTH IN THIS AGREEMENT SHALL BE AASTROM'S EXCLUSIVE REMEDIES FOR DEFECTIVE AND NONCONFORMING PRODUCTS.

(c) No Third-Person Warranty. AASTROM will not make any warranty, representation or guaranty to any person, either orally or in writing, in the name of or on behalf of MSP.

(d) Recalls. From time to time throughout the Term, AASTROM may in its discretion determine that it is necessary or advisable to recall Cell Cassettes manufactured by MSP. In such event, if AASTROM reasonably determines that the number of reported incidence of defective Cell Cassettes is high in relation to AASTROM's historical incidence rate for defective Cell Cassettes and/or general medical product industry standards and AASTROM recalls one or more Shipment Lots due to a failure of such units to meet Specifications during the Warranty Period, AASTROM shall so notify MSP of the recall and the Parties shall jointly exchange relevant information and consult on causation of the defective units prior to

implementing the recall. In the event it is determined by the Parties that the Cell Cassettes were defective due to a failure of such units to meet Specifications during the Warranty Period, MSP agrees to reimburse AASTROM for the reasonable direct costs incurred by AASTROM in conjunction with the recall including the cost of replacing, shipping and testing the units of the Shipment Lot(s) recalled, whether or not all such units are ultimately determined to have been defective, by way of a reduction in MSP's applicable mark-up rates (as set forth on Appendix III) to 15% until the cost of the recall has been recovered by AASTROM. Any disputes regarding causation of defective units involved in a recall that cannot be resolved by the Parties will be resolved through arbitration in accordance with Section 24(b). Furthermore, in the event this Agreement is terminated for any reason prior to AASTROM recovering the full amount of its recall costs from MSP, MSP shall promptly pay to AASTROM the amount of any unreimbursed costs. For the purpose of clarification, it is agreed that AASTROM shall be solely responsible for determining whether any product recall, correction or withdrawal is required and for complying with all of the medical device reporting requirements pursuant to 21 CFR Part 803.

SECTION 13. LIMITATION OF DAMAGES LIABILITY.

(a) Third Party Claims Not Related to Manufacturing Defect. MSP shall have no liability for any damages claimed by a third party if the claim does not arise from or relate to a manufacturing defect by MSP.

(b) Third Party Claims Related to MSP's Delays. MSP shall have no liability for any damages claimed by a third party arising from or related to MSP's delays in manufacturing and delivering Cell Cassettes; provided, however, this limitation of liability shall not apply with respect to any third party which has a contractual relationship with MSP with respect to claims arising out of such contract.

(c) Third Party Claims for Product Liability. With respect to a third party's claim for products liability in connection with the manufacture of the Cell Cassettes or Components, MSP's liability shall not exceed*, in the aggregate for the Term of this Agreement.

(d) AASTROM's Claims - Phase I. During Phase I, MSP's liability for damages to AASTROM for any breach of MSP's obligations, warranties or representations under this Agreement shall not exceed* in the aggregate. Notwithstanding the foregoing this limitation of liability shall not apply with respect to any breach of MSP's obligations to maintain and protect AASTROM's Equipment, Intellectual Property and Confidential Information, or MSP's obligations under Section 23 hereof regarding similar products.

(e) AASTROM's Claims - Phase II. During Phase II, MSP's liability for damages to AASTROM for any breaches of MSP's obligations, warranties or representations under this Agreement shall not exceed: (i) in the event of a breach which does not result in the termination of this Agreement, an amount equal to*; or (ii) in the event

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* CONFIDENTIAL PORTION REDACTED AND FILED SEPARATELY WITH THE COMMISSION

of a breach which does result in the termination of this Agreement, an amount equal to*.

Notwithstanding the foregoing, the foregoing limitation of liability shall not apply with respect to any breach of MSP's obligations to maintain and protect AASTROM's Equipment, Intellectual Property and Confidential Information, or MSP's obligations under Section 23 hereof regarding similar products.

(f) Willful Wrongdoing. Notwithstanding anything to the contrary contained in this Agreement, there shall be no limitation on MSP's liabilities arising from or related to any criminal activity by MSP or any willful wrongdoing by MSP, excepting however, the* limitation on liability for third party claims for product liability as specified in Section 13(c) shall remain applicable, even in the event of criminal activity or willful wrongdoing by MSP.

(g) Nature of Damages. The damages referenced in this Section 13 include damages of any nature whatsoever including without limitation, direct, indirect, special, incidental and consequential damages. No Party shall have any liability for any punitive damages.

(h) Mitigation. The non-breaching Party, as well as the breaching Party, shall use its best diligent efforts to mitigate the damages caused by the breach.

(i) AASTROM's Liabilities. Except with regard to AASTROM's obligations under Sections 14(a) and (d) and 16, it is agreed that AASTROM's liability to MSP with regard to any claim for damages that may arise from a breach of any of AASTROM's obligations, warranties and representations under this Agreement shall not exceed the purchase price for the Cell Cassettes or Components with respect to which AASTROM is in breach.

Notwithstanding the foregoing, the foregoing limitation of liability shall not apply with respect to any breach of AASTROM's obligations with regard to the Intellectual Property or Confidential Information of MSP, nor shall such limitations apply in the event of criminal activity or willful wrongdoing by AASTROM.

SECTION 14. INDEMNITY.

(a) AASTROM's General Indemnity. The Parties acknowledge that AASTROM has designed, developed and established the Specifications for the Cell Cassette and Components, and is responsible for the Development (as defined in Section 9, above). To the extent not covered by MSP's indemnification obligations under Section 14(b) below, and to the extent MSP's liabilities to third parties exceed the limitation of damage liabilities specified in Section 13(a), (b) and (c) hereof, AASTROM will indemnify, hold harmless and defend MSP and its parents and affiliates and its and their officers, directors, agents, employees and contractors and their successors and assigns (individually and collectively, the "MSP

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* CONFIDENTIAL PORTION REDACTED AND FILED SEPARATELY WITH THE COMMISSION

Indemnitees") from and against any and all loss, liability, cost, damage and expense, including, without limitation, reasonable attorneys' fees, in connection with bodily injury, death or otherwise, for claims made by third parties, including, without limitation, a governmental agency or other entity, against any of the MSP Indemnitees arising out of or in connection with (1) the design, manufacture, sale, use, function or operation of the Cell Cassette and Components or (2) the breach by AASTROM of its covenants, representations or warranties under this Agreement, or (3) the non-compliance by MSP with GMPs, but only to the extent that such non-compliance is caused by the failure of AASTROM to comply with a covenant under this Agreement, or a Specification or written requirement of AASTROM that is in express direct violation of GMPs. Upon receipt of a claim indemnified hereunder, MSP shall give AASTROM prompt notice thereof and shall, at no out-of-pocket expense to MSP, cooperate with AASTROM with respect to the defense of such matter. MSP shall have the right, without affecting its indemnity hereunder, to participate in the administration, defense or settlement of any such matter at its own expense and with counsel of its own choosing, but AASTROM will control the defense and selection of lead defense counsel. AASTROM's counsel shall give due consideration to suggestions of MSP's counsel and AASTROM shall not settle any claim indemnified hereunder unless MSP is given a full and unconditional release in respect of such matter and any related matter.

(b) MSP's General Indemnity. MSP will indemnify, hold harmless and defend
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AASTROM and its parents and affiliates and its and their officers, directors, agents, employees and contractors and their successors and assigns (individually and collectively, the "AASTROM Indemnitees") from and against any and all loss, liability, cost, damage and expense (collectively, "Losses"), including without limitation, reasonable attorneys' fees, in connection with any claims made by third parties, including without limitation, a governmental agency or other entity, against any of the AASTROM Indemnitees for any product liability claim arising out of or in connection with the breach of any of MSP's warranties or obligations hereunder; provided, that notwithstanding anything in this Agreement to the contrary, MSP's total liability under this Section 14(b) shall not exceed* dollars, and AASTROM's indemnity set forth in Section 14(a), above, shall not be affected or limited by Losses that are in excess of MSP's indemnification obligations under this Section 14(b). Upon the receipt of a claim of indemnification hereunder, AASTROM shall give MSP prompt notice thereof and shall, at no out-of-pocket expense to AASTROM, cooperate with MSP with respect to the defense of such matter. AASTROM shall have the right, without affecting its indemnity rights hereunder, to participate in the administration, defense or settlement of any such matter at its own expense and with counsel of its own choosing, but MSP will control the defense and selection of lead defense counsel. MSP's counsel shall give due consideration to suggestions of AASTROM's counsel and MSP shall not settle any claim indemnified hereunder unless AASTROM is given a full and unconditional release in respect of such matter.

(c) Intellectual Property Warranty.
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(1) AASTROM represents and warrants that neither the design nor Specifications furnished by AASTROM to MSP in connection with this Agreement nor the manufacture or sale of Cell Cassettes to such design or Specifications or in conformance with the DMR (but

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* CONFIDENTIAL PORTION REDACTED AND FILED SEPARATELY WITH THE COMMISSION

excluding any of MSP's manufacturing process or methods that may be incorporated into any of the foregoing by MSP), will infringe any United States or foreign patent, trademark, copyright or other intellectual property right of others.

(2) MSP represents and warrants to AASTROM that no manufacturing process or method employed by MSP to manufacture the Cell Cassettes will infringe any United States or foreign patent, trademark, copyright or other intellectual property right of others; provided that, such process or method was developed by, or originated from, MSP but without regard to whether such process or method is incorporated in the Specifications or DMR.

(3) Without prejudice to the rights of MSP or AASTROM as set forth in Sections 14(d) and 14(e) below, respectively, if the manufacture or sale of Cell Cassettes to such design Specifications or DMR or the manufacturing process or method, respectively, is held to constitute an infringement of any intellectual property right of any third party or to result in such wrong, and such manufacture and sale is enjoined (by temporary, preliminary or permanent injunction), AASTROM or MSP, as the case may be, at its own expense, shall use its best diligent efforts to procure for the other party the right to continue to manufacture and sell Cell Cassettes, as applicable.

(d) Intellectual Property Indemnity by AASTROM. AASTROM will indemnify, hold harmless and defend the MSP Indemnitees from and against any and all liabilities, costs and expenses, including, without limitation, reasonable attorneys' fees, with respect to which a claim is made by a third party against any of the MSP Indemnitees arising out of or in connection with the breach of AASTROM's warranty and representation set forth in Section 14(c), above. Upon receipt of a claim indemnified hereunder, MSP shall give AASTROM prompt notice thereof and shall, at no out-of-pocket expense to MSP, cooperate with AASTROM with respect to the defense of such matter. MSP shall have the right, without affecting its indemnity hereunder, to participate in the administration, defense or settlement of any such matter at its own expense and with counsel of its own choosing, but AASTROM will control the defense and selection of lead defense counsel. AASTROM's counsel shall give due consideration to suggestions of MSP's counsel. AASTROM shall not settle any claim indemnified hereunder unless MSP is given a full and unconditional release in respect of such matter and any related matter.

(e) Intellectual Property Indemnity by MSP. MSP will indemnify, hold harmless and defend the AASTROM Indemnitees from and against any and all liabilities, costs and expenses, including, without limitation, reasonable attorneys fees, with respect to which claim is made by a third party against any of the AASTROM Indemnities arising out of or in connection with the breach of MSP's warranty and representation set forth in Section 14(c), above. Upon receipt of a claim indemnified hereunder, AASTROM shall give MSP prompt notice thereof and shall, at no out-of-pocket expense to AASTROM, cooperate with MSP with respect to the defense of such matter. AASTROM shall have the right, without affecting its indemnity hereunder, to participate in the administration, defense or settlement of any such matter at its own expense and with counsel of its own choosing, but MSP will control the defense and selection of lead defense counsel. MSP's counsel shall give due consideration to suggestions of AASTROM's counsel. MSP shall not settle any claim indemnified hereunder unless

AASTROM is given a full and unconditional release in respect of such matter and any related matter.

SECTION 15. OWNERSHIP OF INTELLECTUAL PROPERTY.

(a) Ownership of Intellectual Property. Each Party shall retain and own (vis a vis the other Party) all right, title and interest to all copyrightable material, inventions, trademarks, trade secrets, trade dress or other intellectual property (collectively, "Intellectual Property") which it now owns. Notwithstanding the foregoing, AASTROM shall own all Intellectual Property and documentation generated by MSP in connection with the collaborative development and manufacture of Cell Cassettes, whether or not such Intellectual Property was generated prior to or after the Effective Date, except for Intellectual Property that relates to the molding and fabrication processes performed by MSP and the know-how in connection therewith. Said documentation to be owned by AASTROM shall include but not be limited to the Specifications, DMR documentation, material lists, supplier lists and descriptions of manufacturing methods and processes for manufacture of the Cell Cassettes (hereinafter, the "AASTROM Documentation"). Furthermore, notwithstanding anything contained herein, MSP acknowledges and agrees that the AASTROM Documentation will not embody or constitute the Intellectual Property of MSP. Nothing in this Agreement shall be deemed to grant a license to either Party under or with respect to the Intellectual Property of the other Party.

(b) Return of Intellectual Property. Upon expiration of the Term or upon any earlier termination of this Agreement, MSP shall promptly transfer to AASTROM all AASTROM Documentation and Intellectual Property within MSP's possession or control, and AASTROM shall promptly transfer to MSP all MSP Intellectual Property within AASTROM's possession or control. Furthermore, in the event of any expiration or termination of this Agreement by AASTROM "for cause" pursuant to Section 17, or by MSP, other than in accordance with Section 17, MSP will provide AASTROM with full cooperation with regard to the transfer of any know-how embodied in AASTROM Documentation that is sufficient to allow AASTROM to manufacture the Cell Cassettes pursuant to this Agreement; provided that, except for copying, MSP shall bear no expense of any nature in connection therewith.

SECTION 16. CONFIDENTIAL INFORMATION.

(a) Title to Confidential Information and Related Documents. Title to Confidential Information provided by the Disclosing Party to the Recipient shall be and remain the sole and exclusive property of the Disclosing Party. Recipient shall return all such Confidential Information, together with all copies thereof, except for one archive copy, promptly upon the termination of this Agreement.

(b) Non-Disclosure and Non-Use of Confidential Information. The Recipient shall hold all Confidential Information disclosed to it pursuant to this Agreement in confidence and will use Confidential Information only for the purpose of performing its obligations under this Agreement and for no other purpose whatsoever. The Recipient will not disclose Confidential Information to any third person and will disclose Confidential Information only to such of its employees as is necessary or reasonably appropriate to the performance of the Recipient's

obligations under this Agreement. Recipient shall ensure that its employees and any permitted subcontractors having access to the Confidential Information of the Disclosing Party have previously agreed, either as condition of employment or to obtain the Confidential Information, to be bound by terms and conditions substantially similar to those found in this Section 16(b) as a condition to such access. In the event that the Recipient is requested or required by court or governmental order to disclose any of the Confidential Information, the Recipient shall provide the Disclosing Party with prompt written notice of such request or requirement so that the Disclosing Party may seek a protective order or other appropriate protection. The Recipient will cooperate with Disclosing Party at the Disclosing Party's expense, to obtain an appropriate protective order or other reliable assurance that confidential treatment will be accorded confidential treatment by such court or governmental entity.

(c) Protection of Confidential Information. The Recipient will observe
reasonable precautions and procedures to protect and preserve Confidential Information to the same extent that the Recipient uses with respect to its own like confidential information.

SECTION 17. TERM AND TERMINATION.

(a) Term of Agreement. The Term shall commence upon the Effective Date and
continue until its expiration on the seventh anniversary of the Effective Date, unless earlier terminated as provided in this Agreement.

(b) Termination Upon Default. Except for a failure and the corresponding
remedy as expressly specified in Sections 3, 12 and 17(d), if either Party shall commit a material default in any of the material terms or obligations under this Agreement, the non-defaulting Party shall have the right to give the defaulting Party notice specifying with particularity the default and the circumstances surrounding the default. If the defaulting Party shall fail to cure, the noticed default within thirty (30) days after receipt of such notice (fifteen business days with respect to non-payment of amounts owed by AASTROM to MSP under this Agreement), the non-defaulting Party shall have the right to terminate this Agreement prospectively by giving the defaulting Party further notice of at least twenty (20) days prior to the effective date of termination set forth in such further notice.

(c) Termination Upon Insolvency. Either Party shall have the right to
terminate this Agreement prospectively by notice of at least ten (10) days to the other Party if the Party receiving such notice has filed a petition in bankruptcy or insolvency (or if such petition is filed against it and is not vacated, stayed or bonded within one hundred and twenty (120) days after such filing), or files a petition or answer seeking reorganization, readjustment or rearrangement of a substantial part of its business under any law relating to bankruptcy or leading to bankruptcy or is adjudicated by a competent regulatory agency to be bankrupt or insolvent, or a receiver is appointed for all or substantially all of the property of such other Party, or an assignment is made for the benefit of the creditors of such other Party, or any proceeding are instituted for the liquidation or winding up of the business of such other Party.

(d) Termination Upon Inability of MSP to Perform. If, on any three occasions
within a twelve-month period during the Term of this Agreement, one or more of the following events

occur, then AASTROM shall have the right to notify MSP that AASTROM intends to terminate this Agreement prospectively, specifying an effective date of termination not less than thirty (30) days after the date of such notice: (i) more than ten (10%) percent of the Shipment Lots or units of Cell Cassettes delivered to AASTROM are properly rejected by AASTROM under Section 3(f), above; (ii) more than 1 of 1,000 Cell Cassettes accepted by AASTROM fail to meet the warranty set forth in Section 12(a); or (iii) MSP fails to timely deliver a complete order of Cell Cassettes meeting Specifications. For purposes of this Section 17(d), the term "timely deliver" shall mean delivery not more than ten (10) days prior to, nor more than five (5) days after, scheduled delivery dates. The foregoing right of termination shall be in addition to AASTROM's right to seek damages available under law subject to the limitations set forth in Section 13.

(e) Effect of Termination. Termination of this Agreement by either Party shall not affect any purchase order submitted by AASTROM to MSP pursuant to the terms of this Agreement prior to the effective date of termination and the Parties shall fulfill their obligations under such purchase order or to be undertaken under this Agreement prior to such termination even if the completion of such obligations shall be after the effective date of termination. Notwithstanding the foregoing, upon any termination of this Agreement by AASTROM pursuant to this Section 17, AASTROM may, in its discretion elect to terminate all in-process manufacturing of Cell Cassettes by MSP and MSP shall terminate such manufacturing effective immediately upon notice from AASTROM. Furthermore, upon the expiration of the Term as specified in Section 17(a), or upon the termination of this Agreement other than a termination by AASTROM as permitted by Sections 17(b), (c) or (d), then AASTROM shall purchase, at the price set forth in this Agreement, all Cell Cassette finished goods, work in process and unique materials that have been purchased by MSP prior to the effective date of this Agreement for the manufacture of Cell Cassettes provided that the quantities of such goods and materials are reasonable in light of AASTROM's forecasted Requirements and provided that such goods and materials are not defective (per the Specifications). Without limiting the generality of the foregoing, to the extent necessary to give effect to the intention of the Parties expressed therein, the obligations of the Parties under Sections 10 ("Equipment"), 11(d) ("Records; Inspection"), 12 ("Warranty; Recalls"), 13 ("Limitation of Damages Liability"), 14 ("Indemnity"), 15 ("Ownership of Intellectual Property"), 16 ("Confidential Information"), 17 ("Term and Termination"), 18 ("Preferred Supplier; Alternative Supplier"), 19 ("Representations and Warranties"), 23 ("Similar Products"), 24 ("Governing Law; Dispute Resolution"), 25 ("Notices"), 28 ("Severability"), 29 ("Amendment and Waiver") and 32 ("Entire Agreement") shall survive termination of this Agreement in accordance with their terms.

(f) Liabilities When No Termination. Notwithstanding the foregoing, in the event that MSP is in material breach of any of its warranties or obligations, and such breach does not allow AASTROM to terminate this Agreement pursuant to Section 17, then MSP shall be subject to the liabilities and remedies available at law and by this Agreement for such breach, subject to the limitations set forth in Section 13.

(g) Alternative Purchase of Product. If MSP is in breach of MSP's obligations to make and sell Cell Cassettes or Components as specified in this Agreement, and such breach does not

result in a termination of this Agreement, and if AASTROM has available an alternative manufacturing source for said Cell Cassettes or Components, then AASTROM may cancel all or any part of any pending purchase orders (which purchase orders are within the quantities specified in the 12-month rolling forecast as specified in Section 3(a) hereof) for which MSP is unable or unwilling to accept and perform; and AASTROM may have said purchase orders performed by the alternative manufacturing source; and any damages suffered by AASTROM as a result of MSP's breach shall still be recoverable against MSP (subject to the limitations specified in Section 13 hereof).

SECTION 18. PREFERRED SUPPLIER; ALTERNATIVE SUPPLIER.

(a) Preferred Supplier. During the Term, AASTROM shall regard MSP as its "preferred supplier" for Cell Cassettes and purchase its Requirements from MSP; provided, however, nothing in this Agreement shall be deemed to preclude AASTROM from manufacturing the remaining forty (40%) percent of AASTROM's total requirements for Cell Cassettes by itself or from utilizing alternate suppliers for such manufacture.

(b) Alternate Suppliers. In the event that AASTROM elects to utilize an alternative supplier for the Cell Cassettes during the Term, MSP shall provide reasonable cooperation by promptly supplying AASTROM with copies of all AASTROM Documentation at the reasonable expense of AASTROM; provided, however nothing in this Section 18(b) shall be deemed to require MSP to provide training or consultation services to the alternate supplier with regard to the manufacture of the Cell Cassettes.

SECTION 19. REPRESENTATIONS AND WARRANTIES. MSP and AASTROM each represents and warrants (1) that each has, respectively, the full right and authority to enter into this Agreement, and nothing provided in this Agreement will conflict in any way with any outstanding obligation, contractual or otherwise, of such Party, and (2) that each shall comply with all United States governmental laws, rules, regulations and orders applicable to its obligations under this Agreement.

SECTION 20. FORCE MAJEURE.

(a) Suspension of Performance. In the event that MSP or AASTROM (other than with respect to its obligations to pay money to MSP) is rendered unable, wholly or in part, to carry out its obligations under this Agreement by reasons of acts of God, industrial disturbances, outbreak of a state of emergency, war, hostilities, civil commotion, riots, epidemics, fires, earthquakes, floods or any other cause or causes similar or dissimilar to the foregoing beyond the reasonable control of the Party claiming benefit of force majeure, upon such Party's giving notice and reasonably full particulars of such reason to the other Party within a reasonable time after the occurrence of the cause relied upon, then the obligations of the Party giving such notice, so far as they are affected by such reason, shall be suspended during the continuation of any inability so caused, but no longer, and such cause shall so far as reasonably possible be remedied with all reasonable dispatch without the necessity of expending sums (including, without limitation, for overtime labor) not otherwise required under this Agreement. When the event operating to suspend performance by either Party

shall cease, this Agreement shall continue in full force and effect until the expiration or earlier termination as provided in this Agreement.

(b) Cooperation. In the event of a force majeure, AASTROM and MSP shall communicate and cooperate in seeking to avoid or minimize potential interruption of supply and to develop mutually acceptable contingency plans in the spirit of this Agreement. In any event, the time for a Party's performance under this Agreement shall be extended to the extent reasonably necessary to perform the suspended obligation.

(c) Allocation of Resources. In the event of a force majeure resulting in a partial inability of MSP to supply product to its customers, MSP may allocate resources that have not specifically been earmarked to this Agreement, to all of its customers in an equitable manner as determined solely by MSP.

Section 21. MSP Competitiveness; Shared Investment Return.

(a) MSP's Competitiveness. The Parties acknowledge that a primary consideration for AASTROM with regard to the selection of MSP as its preferred supplier was MSP's expertise and stated intention to be a cost-effective and a capable manufacturer and supplier of Cell Cassettes and Components and that AASTROM's commercialization strategy is dependent in part upon MSP's stated intention to use best diligent efforts to remain cost effective and capable. Thus, MSP will use best diligent efforts to search for methods and means that will lead to in-plant cost reductions, savings and maintenance and quality improvement. AASTROM will cooperate with MSP in these efforts.

(b) Shared Investment Return.

(1) MSP Capital Investments. If, during the Term, MSP shall invest in an AASTROM-approved capital project that results in a cost savings in the production of Cell Cassettes, MSP shall be entitled to retain such cost savings until MSP has recouped the entire cost of the capital project from Cell Cassettes purchased by AASTROM. Once MSP recoups such capital expenditure, the cost savings resulting from implementation of the capital expenditure shall be shared by the Parties on a 50%:50% basis and MSP shall be deemed to have assigned to AASTROM sole ownership of the capital property purchased by MSP such that the capital property shall be AASTROM's Equipment. Throughout the Term, any such capital property purchased by MSP shall be used by MSP solely for the manufacture of Cell Cassettes for AASTROM. The method for recoupment of MSP's capital investments and implementation of cost sharing shall be as set forth in Section 21(b)(2) below.

(2) Recoupment of MSP Capital Investment; Cost Sharing. Effective on the first day of the quarter immediately following the quarter in which a capital project paid for by MSP is implemented and cost savings first occur, the Base Cost Assumption (calculated in accordance with Appendix III) shall be recalculated (RBCA) to reflect the cost savings resulting from implementation of the capital project. The difference between the original Base Cost Assumption (OBCA) and RBCA shall be tracked by MSP on future orders of Cell Cassettes and the entire cost savings shall be allocated to MSP until MSP has recouped the

amount MSP expended on the capital project. Thereafter, the cost savings resulting from implementation of the capital expenditure shall be allocated to AASTROM and MSP on a 50%:50% basis with regard to all Cell Cassette orders submitted by AASTROM.

(3) AASTROM Capital Investments. AASTROM shall enjoy all savings that result from capital projects that are paid for by AASTROM or result from any changes in Specifications made by AASTROM. In the event that any such cost savings are implemented, the Base Cost Assumption utilized to calculate AASTROM's purchase price for Cell Cassettes shall be immediately reduced to reflect the amount of the cost savings. AASTROM shall also retain all ownership rights with regard to any capital property purchased by AASTROM which may be used by MSP in the manufacture of Cell Cassettes for AASTROM.

SECTION 22. INSURANCE.

During the Term, each Party shall procure and maintain at its own cost and expense, including the cost of premiums and deductibles, a general liability insurance policy, including product liability (completed operations) insurance, in an amount not less than* dollars per occurrence,* dollars aggregate bodily injury, death and property damage liability and commercial umbrella coverage of at least* dollars each occurrence and annual aggregate. Such insurance shall be written by a reputable insurance company licensed to do business in the United States, shall name the other Party as an additional insured, shall contain a broad form vendor's endorsement. During Term, MSP shall also carry and maintain in full force and effect all-risk property insurance covering the full replacement value of AASTROM's Equipment and MSP's building, machinery, equipment and work-in-process, as well as worker's compensation insurance in the statutory limits required by the State of North Carolina (or other applicable jurisdiction). Within ten (10) days after the Effective Date, each Party shall furnish the other Party with a certificate of insurance confirming the existence of such insurance and stipulating that the insurer will give the other Party at least ten (10) days' written notice prior to any cancellation of or material change in such insurance. The availability of the foregoing insurance coverage shall in no event be construed to limit or expand the Parties' agreement to limit liability to one another in accordance with Section 13.

SECTION 23. SIMILAR PRODUCTS.

(a) Continuing Prohibition. At all times both during and after the Term, MSP shall not make or sell, or enable others to make or sell, the Cell Cassettes or Components, excepting only for making and selling the Cell Cassettes or Components for AASTROM.

(b) Similar Products. During the Term, MSP shall not (i) manufacture, assemble, produce, ship or in any other way make available for use or distribution, by any party other than AASTROM, any product or system that is functionally the same as the Cell Cassette or Components, or (ii) in any way accept engagement with, or render service to, any individual, firm or corporation, other than AASTROM, as a consultant, instructor, expert, designer, manufacturer or producer, or act in any other capacity, which engagement or rendition of

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services involves the development or production of any product or system that performs the same function as the Cell Cassette. Furthermore, in the event that this Agreement is terminated by AASTROM "for cause" under Section 17, the foregoing prohibitions shall continue until twelve (12) months after the effective date of such termination. As used herein, a hematopoietic stem cell expansion product or system does not have the same function as a Cell Cassette if it utilizes distinctly different methods and distinctly different disposable components than are used for the Cell Cassette.

SECTION 24. GOVERNING LAW; DISPUTE RESOLUTION.

(a) Governing Law. The construction, interpretation and enforcement of the terms, conditions, rights and liabilities set forth in this Agreement shall be in accordance with the internal laws of the State of New York, excluding its conflict-of-laws principles.

(b) Dispute Resolution.

(1) Any controversy or claim arising out of or relating to this Agreement or the breach thereof, whether common law or statutory, including, without limitation, claims asserting violations or the antitrust laws, will be settled exclusively by arbitration in New York, New York if initiated by AASTROM and in Ann Arbor, Michigan, if initiated by MSP (unless another location is mutually agreed in writing), using the American Arbitration Association. The arbitration will be heard before three arbitrators, one to be chosen by AASTROM, one to be chosen by MSP, and the third to be chosen by those two arbitrators.

(2) The arbitrators will apply the internal law of the State of New York as set forth in Section 24(a), except that the arbitrators will not have the power to alter, modify, amend, add to or subtract from any term or provision of this Agreement. To the extent consistent with the terms of this Agreement, the arbitrators shall have the power to grant injunctive relief. In all other respects, the Commercial Rules of the American Arbitration Association will govern the arbitration. Judgment on the award of the arbitrators may be entered by any court having jurisdiction to do so, and the parties to this Agreement hereby irrevocably consent and submit to the personal jurisdiction and venue of the applicable federal courts having jurisdiction in the district and state in which the arbitration is to occur, if at all, in accordance with this Section 24(b) (or in the state court in the county and state in which the arbitration is to occur, if at all, failing jurisdiction of the federal court) in any action or proceeding for that purpose as well as for any and all other permitted purposes, including, without limitation, in respect of a Party seeking injunctive relief, in connection with this Agreement. The Parties hereby irrevocably waive any and all claims and defenses either might otherwise have in any such action or proceeding in any of such courts based upon any alleged lack of personal jurisdiction, improper venue, forum non conveniens or any similar claim or defense.

(3) The failure or refusal of either Party to submit to arbitration as required by Section 24(b) will constitute a material breach of this Agreement. If judicial action is commenced in order to compel arbitration, and if arbitration is in fact compelled, the Party that resisted arbitration will be required to pay to the other parties all costs and expenses, including,

without limitation, reasonable attorneys' fees, that they incur in compelling arbitration. The prevailing Party in arbitration shall be entitled to its reasonable attorneys' fees and costs of the arbitration proceeding without regard to the limitations set forth in Section 13. All other fees and charges of the American Arbitration Association will be borne as the arbitrators will determine in their award.

(c) Notwithstanding the Parties' agreement to submit to arbitration pursuant to this Section 24, either Party may petition any court of competent jurisdiction for injunctive relief in the event of an alleged breach of Section 15(b) or 16.

SECTION 25. NOTICES.

All notices required to be made hereunder shall be sent to the respective Parties set forth below by certified mail, return receipt requested or by facsimile (with confirmation copy by such certified mail):

If to MSP: Mid-State Plastics Division
Anchor Advanced Products, Inc.
Highway 220
P.O. Box 88
Seagrove, North Carolina 27341
Attn.: Executive Vice President and General Manager
Facsimile: 910-873-8272

with a copy to: Piliero Goldstein Jenkins & Hall, LLP
292 Madison Avenue
New York, NY 10017
Attn.: Edward J. Goldstein, Esq.
Facsimile: 212-685-2028

and

If to AASTROM: AASTROM Biosciences, Inc.
P.O. Box 376
Ann Arbor, Michigan 48106
Attn: President and CEO
Facsimile: 313-665-0485

with a copy to: Gray Cary Ware & Freidenrich, P.C.
4365 Executive Drive, Suite 1600
San Diego, CA 92121-2189
Attn.: T. Knox Bell, Esq.
Facsimile: 619-677-1477

AASTROM and MSP may change their respective addresses and facsimile numbers for notices by a notice given by mail in accordance with this Section 25. Unless

otherwise shown by documentary evidence, all notices shall be deemed received upon the earlier of actual receipt or three days after deposit in the U.S. mail, postage prepaid, or if by facsimile, on the business day next following the day sent.

SECTION 26. SUCCESSORS AND ASSIGNS; SURVIVAL.

This Agreement is not intended to benefit any person not a Party hereto or to give any rights to any such non-party. This Agreement shall inure solely to the benefit of and be binding upon the Parties hereto and their successors and permitted assigns. This Agreement shall bind and inure to the benefit of any successor to a Party by merger or purchase of substantially all of the assets of the Party. Except to such a successor, neither AASTROM nor MSP may assign this Agreement in whole or in part without the prior written consent of the other, which consent shall not be unreasonably withheld. Any assignment or purported assignment by either party without any such required consent shall be null and void. The representations, warranties and covenants set forth in this Agreement shall survive its expiration or earlier termination as expressly provided or as is necessary to give full effect to the undertakings of the Parties prior to such expiration or termination.

SECTION 27. HEADINGS.

Headings inserted in this Agreement are for the convenience of the parties and shall not govern any conclusion or interpretation of this Agreement or any of its provisions. Nouns and verbs in the singular person or tense shall include the plural person and tense and vice versa.

SECTION 28. SEVERABILITY.

In case any provision or part thereof in this Agreement shall, for any reason, be held invalid, illegal or unenforceable, such invalidity, illegality or unenforceability shall not affect any other provision or part thereof, and this Agreement shall be construed as if such invalid or illegal or unenforceable provision or part thereof had been reformed so that it would be valid, legal and enforceable to the maximum extent permitted. Except as otherwise expressly set forth in this Agreement, neither Party shall have the right to set off all or any part of the damages it incurs as a result of the other Party's breach of its obligations in this Agreement against amounts that are owed to such other Party hereunder.

SECTION 29. AMENDMENT AND WAIVER.

This Agreement may be amended or modified only by a written instrument executed by each Party hereto expressly stating that it is an amendment to the terms of this Agreement. Without limiting the generality of the foregoing, all sales and purchases of Cell Cassettes contemplated by this Agreement shall be made solely pursuant to the terms of this Agreement without consideration of any different or additional terms of any purchase order or sales acknowledgement or other form of either Party and any such additional or different terms are hereby objected to. The failure of a Party at any time or times to require performance of any provision hereof shall in no manner affect the Party's right at a later time to enforce the same. No waiver by any Party of the breach of any term contained in this

Agreement, in any one or more instances, shall be deemed to be construed as a further or continuing waiver of any such breach or of the breach of any other term of this Agreement, nor shall any such waiver be deemed to be a custom or practice of the waiving Party. No waiver shall be effective unless in writing, signed by the Party waiving compliance.

SECTION 30. COUNTERPARTS.

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

SECTION 31. INDEPENDENT CONTRACTORS.

The relationship between the Parties is that of independent contractors and neither Party shall have the power to bind or obligate the other in any manner, other than as expressly set forth in this Agreement.

SECTION 32. ENTIRE AGREEMENT.

This Agreement, including, without limitation, its recitals and Appendices, sets forth the entire agreement and understanding of the parties in respect of the subject matter hereof, including, without limitation, the purchase and sale of Cell Cassettes, and supersedes all prior agreements, arrangements, presentations and understandings relative to the subject matter hereof, whether written or oral, express or implied. No oral or written statement, representation, warranty or promise made prior to or contemporaneously with the execution of this Agreement shall be binding upon either party with respect to the subject matter hereof or shall otherwise affect the enforceability of this Agreement in accordance with its terms.

IN WITNESS WHEREOF, the undersigned have executed and delivered this Agreement effective on the Effective Date.

ANCHOR ADVANCED PRODUCTS, INC.

By: /s/ FRANCIS OLMSTEAD

Francis Olmstead
President and C.E.O.

AASTROM BIOSCIENCES, INC.

By: /s/ R. DOUGLAS ARMSTRONG, Ph.D.

R. Douglas Armstrong, Ph.D.
President and C.E.O.

APPENDIX I

Equipment

I. Cell Cassette-related Manufacturing Equipment To be Provided and owned by AASTROM

1. Bioreactor Assembly Fixtures

2. Tissue Culture Treatment Process and Equipment Requiring:
208 Volt 3 Flux 60HZ @ 60 AMPS Clean Earth Ground 2" Exhaust Vent

Nitrogen Carbon Dioxide
Nitrous Oxide Helium

3. Ultrasonic Welder - Dukane 700 Watt Ultracom Assembly System or Equivalent

4. Portable Clean Air Tent (if required)

5. Leak Tester - Industrial Data Systems Sprint LC-P Pressure Decay Leak Tester Equivalent

6. Sealing equipment for Harvest Bag, Waste Reservoir, and finished device packaging (if required)

7. UV curable adhesive application and curing equipment

8. Injection Molds

9. Robotic End Arm Tools

10. EMMA Welder and heat sealing station

II. Manufacturing Equipment To Be Provided and owned by MSP:

1. Hand Assembly, Pneumatic Tools, and Dimensional Measurement Equipment as required by project

2. AutoCad and Pro Engineer workstation(s), either on site or readily accessible, to meet program objectives

3. Molding Equipment as Required by Program

   (600 ton, 300 ton, and 75 ton molding machines in class 100,000 medical molding facility;

   700 ton molding machines in an environment suitable for producing parts to be moved into a clean room)

4. Robotic pickers for molding machine.

5. Class 100,000 Assembly space as required by the Program

APPENDIX II

Specifications

APPENDIX III

Pricing Schedule

For Phase I and II

A. PHASE I PRICING FOR PRODUCTION AND COLLABORATION

Pricing of Cell Cassettes and Collaboration during Phase I will be based on total cost of manufacturing as such costs are defined in (S)A.2 of this Appendix III (hereinafter "Costs") plus manufacturing "Mark-up". Accounting will summarize Costs at the end of each month and add the applicable Mark-up to generate an invoice in the form attached hereto as Appendix IV to AASTROM. AASTROM may at any time review MSP's books, records and supporting documentation with regard to such costs in accordance with Section 11(d) of the Agreement.

1. MARK-UP

The manufacturing mark-up on Costs, will be*; provided, however, that in no event will MSP add a Mark-up on items supplied by AASTROM at no charge to, MSP; and provided further that the Mark-up on costs described in item 2(f), below, shall be* and there shall be no additional mark-up for costs described in items 2(h) and 2(j) below. Nor shall there be any mark-up on freight, taxes, insurance and other similar add-on charges with regard to the items listed below or for costs billed directly to AASTROM. Finally, in no event will there be more than one mark-up on any item.

2. COSTS. Costs may include the following and will be determined as follows:

(a) Material. Accounting will summarize invoiced amounts for all materials used for Cell Cassettes. This will include, without limitation, generic materials, resins, packaging, process gases, custom fabricated components, assemblies, and devices. Freight-in will be included at invoiced amount.

(b) General Expenses Purchases. Accounting will summarize invoiced amounts for all products and services (including invoiced expenses in connection therewith) purchased solely for the Cell Cassette program, including express freight charges, if applicable. Purchase orders placed for Cell Cassette products and services will have a special "X" prefix to indicate to Accounting to accumulate copies of the invoices.

(c) Travel expenses. MSP employees will complete expense reports for normal and customary travel, lodging, meals, and items incidental to the foregoing in connection with the Cell Cassette program. Expense reports will be submitted to Accounting accompanied by receipts for all purchases.

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(d) Direct Labor. Direct labor cost will be at an average labor rate for the employee, calculated each month using a rolling 3-month average. Operators, lead operators, certified operators, and floor operators will log into the AASTROM area in a log book while they are working on the Cell Cassette program. Warehouse, maintenance, tooling and supervision will complete time sheets indicating hours and activities for the Cell Cassette program. Fringes will be calculated at* of the total cost of direct labor employed in the manufacture of Cell Cassettes during the month. At month end, the log will be summarized by Accounting.

Current direct labor rates, including fringes, are:

	$ Cost/Hr.
Operator, Assembler, Floor Operator	*
Inventory Clerk	*
Inspector/Auditor/Trainer	*
Shipping/Receiving/Truck Driver/ Material Handler.	*
Maintenance	*
Supervisor	*
Tool Maintenance	*

(e) Salary Labor. Salaried labor will indicate on their weekly time sheet all hours and activities worked on the Cell Cassette program in minimum one-tenth hour increments. Payroll will forward time sheets with AASTROM hours to Accounting. At the end of each month, Accounting will total the hours by employee and charge the base salary plus* for fringes. Current typical salaries, including fringes, are:

	$ Cost/Hr.
Process Engineer	*
Customer Service	*
Cost Accountant	*
Quality Engineer	*
Tooling Engineer	*
Plant Manager	*
Operations Director	*
VP Operations	*
VP Engineering	*
Division President	*

(f) Consulting Fees. Consulting cost will be the invoiced amount including expenses. Current cost rates are:

Tom Brady (manufacturing)	* plus expenses
Dan Whalan (quality assurance)	* plus expenses

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Ms. Trabeau, Bryans Practical Consulting/Axios (microbiology/sterility assurance)	* plus expenses
CAD design services	*

Consulting fees will not be duplicated in item 2(b), above.

(g) Molding Cost. Molding cost will be calculated on an annual budgeted rate per machine hour. The rate will be modified depending on the press size and will not include direct labor. The machine hours used and component identification for the Cell Cassette program will be recorded in a log book and summarized at month end by Accounting. Labor will be logged and billed separately. The current average machine-hour rate is *.

Press Tons	$ Cost/Hr.
75	*
150	*
230	*
300	*
350	*
650	*

(h) Rent. Rent will be charged at the cost of monthly building depreciation, insurance, taxes, maintenance and utilities (not including molding machine utilities) per sq. ft. for the area designated for the Cell Cassette program only. The rate will be adjusted by MSP annually. The current rental rate including profit mark-up to MSP and estimated square footage for each area are:

Area	$/sq. ft. per month	Current Estimated Sq. Ft.
Cleanroom	*	1,000
Warehouse	*	925

(i) Tooling & Fixtures. Upon prior written approval of AASTROM, unique tooling and fixtures will be charged at MSP's cost of manufacture or the invoice amount, as the case may be, including inbound freight if applicable.

(j) Equipment. Items listed in Appendix I as MSP Equipment will not be charged either individually or through depreciation to AASTROM. Auto Cad and Pro Engineer Workstations, also listed in Appendix I, are not charged to AASTROM. Freight, installation and training for such equipment will not be charged.

B. PHASE II PRICING

Prior to the commencement of Phase II, the Parties shall negotiate in good faith using best diligent efforts to reach a mutual agreement with regard to the establishment of a fair and

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reasonable purchase price for Cell Cassettes during Phase II in accordance with the provisions of this Section B.

1. Base Cost Assumption

As part of Phase I development, and prior to the commencement of Phase II, the Parties will develop a bill of materials which sets forth the cost to produce a Cell Cassette on a per unit basis assuming an annual production volume of 1,000 Cell Cassettes, hereafter referred to as the "Base Cost Assumption." Such bill of materials will be substantially in the form of Appendix V to be attached hereto (hereinafter, the "Bill of Materials") and the Parties will use best diligent efforts to mutually agree upon the cost assumptions underlying the Base Cost Assumption. Such assumptions shall be based upon manufacturing costs determined in accordance with Generally Accepted Accounting Principles.

2. Adjustment to the Base Cost Assumption

A primary consideration in AASTROM's decision to select MSP as its preferred supplier is MSP's stated intention and capability to use its best diligent efforts to manufacture Cell Cassettes at the lowest reasonable cost. As manufacturing experience and unit and lot volumes increase, certain manufacturing cost components are expected to decrease. As part of its undertaking to use best diligent efforts to capture such decreases, prior to commencement of Phase II, MSP will meet with AASTROM (and its representatives) to review, and carry out other activities as necessary to:

(i) establish the Bill of Materials for the Cell Cassette which will include quantities and costs of purchased materials and labor hours and rates for molding and assembly operations (see Appendix V);
(ii) identify the cost components that will be impacted by increased production volumes;
(iii) identify methods of improving manufacturing efficiencies in molding and assembly operations expected to result in manufacturing yield improvements from experience and volume increases; and
(iv) identify methods of improving the economies of procuring raw materials and other third party components, including without limitation, volume purchasing, and materials handling and procurement methods.

Once the Base Cost Assumption has initially been established, the Parties will periodically review the assumptions underlying the Base Cost Assumption and effect appropriate adjustments to the Base Cost Assumption to reflect changes to the Bill of Materials including the then-current cost of purchased materials and labor rates. Based upon this review process (hereafter referred to as the "Cost Review Process"), AASTROM and MSP will also establish the appropriate expected cost reductions that are achievable by MSP at increased manufacturing volumes and which MSP shall become responsible for achieving upon reaching an annual Phase II production volume of* Cell Cassettes. Such cost reductions, as agreed to by the Parties, will be referred to as MSP's Cost Reduction Commitment and will include those cost reductions resulting from manufacturing efficiencies achievable from

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increased manufacturing volume as well as improvements in manufacturing yield as MSP becomes more proficient in producing Cell Cassettes (hereafter referred to as "Manufacturing Yield). Upon AASTROM reaching an annual order volume of* Cell Cassettes, the Parties will agree on MSP's cost Reduction Commitment to be implemented at an annual order volume of* units. Concurrently with MSP's efforts to implement cost reductions, AASTROM will endeavor to make design and manufacturing process changes that will result in additional manufacturing cost reductions (hereinafter referred to as "AASTROM Cost Reductions"). Such AASTROM Cost Reductions will be reflected in the Base Cost Assumption. For example, assuming a* per unit Base Cost Assumption, once AASTROM's annual order volume reaches* Cell Cassettes, the Base Cost Assumption would be reduced by MSP's Cost Reduction Commitment of (assuming* as MSP's Cost Reduction Commitment) reducing the Base Cost Assumption to*. If AASTROM modified the Specifications to allow for a $20 component to be used in place of a $50 component, the resulting $30 cost savings would further be deducted from the Base Cost Assumption reducing it to*.

Upon the achievement of an annual production volume of* Cell Cassettes, the Parties will again diligently undertake a Cost Review Process to determine subsequent MSP Cost Reduction Commitments at annual production volume increments of* Cell Cassettes. The Cost Review Process shall not, however, be deemed to relieve MSP from undertaking to use best diligent efforts to reduce costs during any intervening periods wherein the parties are reviewing MSP's Cost Reduction Commitment.

3. Mark-Up, Cell Cassette Purchase Price

Prior to the commencement of Phase II and not less than 30 days prior to expiration of each subsequent calendar year during Phase II thereafter, AASTROM shall advise MSP of its annual forecast of Cell Cassettes needed from MSP for the following year and MSP will receive a manufacturing Mark-Up to be determined each year based upon AASTROM's annual forecast and the manufacturing operations to be undertaken by MSP as follows;

AASTROM Annual Volume Forecast (Units)

	*	*	*	*	*	*

MSP Manufacturing Operation	Mark-Up Rate					
Materials, labor & overhead - molding	*	*	*	*	*	*
Labor - assembly	*	*	*	*	*	*
MSP Purchased Components	*	*	*	*	*	*

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Cell Cassette Purchase Price - Once the annual percent Mark-Up has been determined for the year, the Purchase Price for the Cell Cassettes to be delivered to AASTROM for that year will be as follows;

* (*) = Purchase Price.

(*) the applicable Mark-Up rates will be based upon AASTROM's annual volume forecast using the above table. Once AASTROM's annual volume forecast reaches a* Cell Cassettes increment, the Base Cost Assumption will be reduced by MSP's Cost Reduction Commitment on all subsequent purchase orders submitted by AASTROM, as provided in Section B.2 above, and any AASTROM Cost Reductions would then be additionally deducted.

Such Purchase Price will be used by MSP to invoice AASTROM for Cell Cassettes delivered under this Agreement during the following year.

Annual Adjustment - Costs - Within 30 days after the expiration of each year during Phase II, the actual average MSP manufacturing cost to produce a Cell Cassette will be compared to the Base Cost Assumption, as adjusted, applicable during the preceding year. For purposes of this Section B3, the Base Cost Assumption shall be adjusted to reflect the changes to price of purchased raw materials and component parts and labor rates. The Base Cost Assumption shall not be adjusted for increases in cost resulting from activities within MSP's control, including but not limited to, manufacturing efficiencies and manufacturing yield. If the actual average unit cost is less than such Base Cost Assumption, then AASTROM shall be entitled to a credit for the difference between the Base Cost Assumption, as adjusted, and the actual average unit cost multiplied by the total number of units purchased by AASTROM during the preceding year. Such credit will be paid to AASTROM by MSP within 45 days after AASTROM and MSP have completed the cost review. Alternatively, if the actual unit cost exceeds the Base Cost Assumption, as adjusted, AASTROM shall only be obligated to pay MSP for Cell Cassettes it accepted at the Cell Cassette Purchase Price in effect at the time the Order was submitted by AASTROM. For purposes of determining the actual manufacturing costs as set forth in this Section B.3, the provisions of Section A 2(a), 2(d), 2(e), 2(g) and (h) of this Appendix III shall apply, provided however that increases in those cost rates will not exceed the amount of any increase in the Producer Price Index over the applicable period and there shall be no mark-up on costs described in items 2(h) nor shall there be any mark-up on freight, taxes, insurance, sterility validation or other similar add-on charges with regard to costs directly billed to AASTROM or for materials supplied directly by AASTROM.

Annual Adjustment - Mark-Up Rates - At such time as the foregoing annual cost adjustment is made, the actual volume of Cell Cassettes ordered by AASTROM during such year will be compared to the annual forecast for that year. If the actual volume of Cell Cassettes ordered and not canceled by AASTROM during such year is less than the forecasted volume on which the Mark-Up rates were established, MSP may invoice AASTROM for the difference resulting from the use of lower than actual Mark-Up rates based upon the volume of Cell Cassettes actually ordered by AASTROM. Similarly, if the forecasted volume of Cell Cassettes

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purchased by AASTROM is exceeded in any year, MSP will refund AASTROM for the difference resulting from the use of higher than actual Mark-Up rates based upon the volume of Cell Cassettes actually ordered by AASTROM.

Additional Manufacturing Development Activities.
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During Phase II, AASTROM may request that MSP provide assistance to AASTROM that is beyond the scope of this Agreement. In this event, any such costs preapproved by AASTROM in writing and incurred by MSP will be borne by AASTROM and paid at rates consistent with Phase I pricing.

APPENDIX IV

Pro Forma Invoice

MSP Mid-state plastics
A Division of ANCHOR ADVANCED PRODUCTS, INC.
P.O. BOX 88 . SEAGROVE, NC 27341 .
TELEPHONE 910-873-7221

INVOICE
ORIGINAL INVOICE

INVOICE _____ PAGE ____

DATE ____

SOLD TO:

SHIP TO:

CURRENCY _____

CUSTOMER NO.	SHIP VIA	ORDER NO.	SLS. NO.	REFERENCE NO.	TERMS
- --------	----------	----------	----------	----------	----------

ITEM NO.	DESCRIPTION	U/M	QUANTITY	UNIT PRICE	AMOUNT
- --------	----------	----------	----------	----------	----------
	Description of item delivered to include Production Lot Number and Invoice to indicate the number of items delivered at cost (in accordance with Section 3 (g)) for Aastrom testing				

WEIGHT

MISC. CHARGES

AMOUNT DUE

APPENDIX V

Bill of Materials

EXHIBIT 23.1

CONSENT OF INDEPENDENT ACCOUNTANTS

We consent to the inclusion in this registration statement on Form S-1 Amendment No. 2 (File No. 333-15415) of our report dated October 31, 1996, on our audits of the financial statements of Aastrom Biosciences, Inc. We also consent to the reference to our firm under the caption "Experts."

/s/ COOPERS & LYBRAND L.L.P.

Detroit, Michigan
December 19, 1996