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SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

Form 10-K

☑ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d)**
OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended June 30, 2010

or

o **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d)**
OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from to

Commission File Number 0-22025

Aastrom Biosciences, Inc.

(Exact name of registrant as specified in its charter)

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

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

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

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

Title of Class	**Name of Each Exchange on Which Registered**
Common Stock (No par value)	The NASDAQ Stock Market, Inc.

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

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes o No ☑

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes o No ☑

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

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

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes o No o

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§ 229.405) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☑

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer - o	Accelerated filer - ☑	Non-accelerated filer - o (Do not check if a smaller reporting company)	Smaller reporting company - ☑

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes o No ☑

The approximate aggregate market value of the registrant's Common Stock, no par value ("Common Stock"), held by non-affiliates of the registrant (based on the closing sales price of the Common Stock as reported on the NASDAQ Capital Market) on December 31, 2009 was approximately $54,000,000. This computation excludes shares of Common Stock held by directors, officers and each person who holds 5% or more of the outstanding shares of Common Stock, since such persons may be deemed to be affiliates of the registrant. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

As of August 31, 2010, 28,251,787 shares of Common Stock, no par value, were outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Document	**Form 10-K Reference**
Proxy Statement for the Annual Meeting of Shareholders scheduled for October 21, 2010	Items 10, 11, 12, 13 and 14 of Part III

AASTROM BIOSCIENCES, INC.

ANNUAL REPORT ON FORM 10-K

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Except for the historical information presented, the matters discussed in this Report, including our product development and commercialization goals and expectations, our plans and anticipated timing and results of clinical development activities, potential market opportunities, revenue expectations and the potential advantages and applications of our products and product candidates under development, include forward-looking statements that involve risks and uncertainties. Our actual results may differ significantly from the results discussed in the forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those discussed under the caption "Risk Factors." Unless the context requires otherwise, references to "we," "us," "our" and "Aastrom" refer to Aastrom Biosciences, Inc.

PART I

Item 1. *Business*

We were incorporated in 1989 and are a regenerative medicine company focused on the development of innovative cell therapies to repair or regenerate damaged or diseased tissues. We are currently focused on developing autologous cell therapies for the treatment of severe, chronic cardiovascular diseases. Using our proprietary technology, we are able to expand the number of stem and early progenitor cells from a small amount of bone marrow (approximately 50 ml) collected from the patient. Preclinical and interim clinical data suggest that our cell therapy is effective in treating patients with critical limb ischemia (CLI) and other severe, chronic cardiovascular diseases, such as dilated cardiomyopathy (DCM). Nearly 200 patients have been treated in recent clinical trials using our current cell therapy (over 400 patients safely treated since our inception) with no treatment related adverse events or safety issues.

Our Technology Platform

Our technology is an autologous, expanded cellular therapy developed, using our proprietary, fully-automated cell processing system, which utilizes "single-pass perfusion" to produce human cell products for clinical use. Single-pass perfusion is our patented manufacturing technology for growing large numbers of human cells. The production of our cell therapy products is done under current Good Manufacturing Practices (cGMP) guidelines required by the U.S. Food and Drug Administration (FDA). Our therapies begin with a small amount of the patient's own bone marrow to produce large numbers of stem and early progenitor cells, many times more than what is found in the patient's bone marrow. Our proprietary mixture of cell types may be capable of developing into cardiovascular and other tissues as well as stimulating a patient's own existing repair mechanisms.

Our cellular therapies have several features that we believe are critical for success in treating patients with severe, chronic cardiovascular diseases:

Safe — our bone marrow derived, expanded, autologous cellular therapy leverages decades of scientific and medical experience, as bone marrow and bone marrow-like therapies have been used safely and efficaciously in medicine for decades.

Autologous — we start with the patient's own cells, which are accepted by the patient's immune system allowing the cells to differentiate and integrate into existing functional tissues, and may provide long-term engraftment and repair.

Expanded — we begin with a small amount of bone marrow from a patient (approximately 50 ml) and significantly expand the number of stem and progenitor cells to more than are present in the patient's own bone marrow.

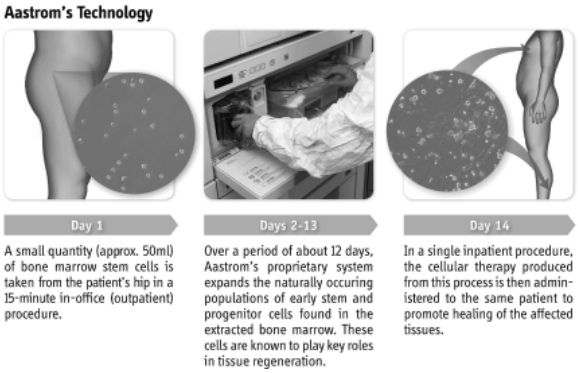
A mixed population of cells — we believe our proprietary mixture of cell populations contains the cell types required for tissue regeneration, which are also found in natural bone marrow, though in smaller quantities.

Minimally invasive — our procedure for taking bone marrow (an "aspirate") can be performed in an out-patient setting and takes approximately 15 minutes. For diseases such as CLI, the administration of our therapy

can be performed in an out-patient setting in a short procedure. We are pursuing a minimally invasive approach to cell delivery in diseases such as DCM.

Our cell therapies are produced at our cell manufacturing facility in the United States, located at our headquarters in Ann Arbor, Michigan.

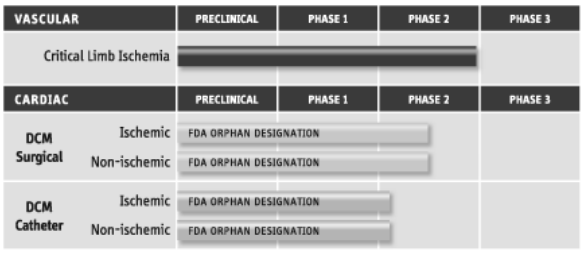
The following graphic summarizes the cell treatment process:



Clinical Development Programs

Our clinical development programs are focused on advancing therapies for unmet medical needs in cardiovascular diseases. Our CLI program is currently in phase 2b clinical development, and we expect it to advance to Phase 3 development in 2011. Our DCM program is in early Phase 2 clinical development and is focused on achieving proof of concept in this indication.

The following summarizes the status of each of our clinical programs:



Results to date in our clinical trials may not be indicative of results obtained from subsequent patients enrolled in those trials or from future clinical trials. Further, our future clinical trials may not be successful or we may not be able to obtain the required Biologic License Application (BLA) registration in the United States for our products in a timely fashion, or at all. See “Risk Factors.”

Critical Limb Ischemia

Background

CLI is the most serious and advanced stage of peripheral arterial disease (PAD). PAD is a chronic disease that progressively restricts blood flow in the limbs and can lead to serious medical complications. This disease is often associated with other clinical conditions including hypertension, cardiovascular disease, hyperlipidemia, diabetes, obesity and stroke. CLI is used to describe patients with the most severe forms of PAD: those with chronic ischemia-induced pain (even at rest), ulcers, tissue loss or gangrene in the limbs, often leading to amputation and death. CLI leads to more than 160,000 amputations per year. The one-year and four-year mortality rates for no-option CLI patients that progress to amputation are approximately 25% and 80%, respectively. Our technology has shown significant promise in the treatment of CLI.

Clinical Results

In June 2010, we reported results from the planned interim analysis of our multi-center, randomized, double-blind, placebo controlled U.S. Phase 2b RESTORE-CLI clinical trial. This clinical trial is designed to evaluate the safety and efficacy of our therapy in the treatment of patients with CLI. It is the largest multi-center, randomized, double-blind, placebo-controlled cellular therapy study ever conducted in CLI patients. We completed enrollment of this trial in February 2010 with a total of 86 patients at 18 sites across the United States. These patients are being followed for a period of 12 months following treatment. In addition to assessing the safety of our product, efficacy endpoints include amputation-free survival, time to first occurrence of treatment failure (defined as major amputation, all-cause mortality, doubling in wound size and de novo gangrene), major amputation rates, level of amputation, complete wound healing, patient quality of life, and pain scores.

Results from the RESTORE-CLI interim analysis were presented at the Society of Vascular Surgery Meeting in June 2010. The results included the finding that amputation free survival — defined as time to major amputation or death — was statistically significant in favor of our therapy (p=0.038). Additionally, statistical analysis revealed a significant increase in time to treatment failure (e.g., major amputation, doubling in wound size de novo gangrene, and death) (log-rank test, p=0.0053). Other endpoints measured (e.g., major amputation rate, complete wound healing, change in Wagner wound scale) showed encouraging trends, but had not yet reached statistical significance at the interim analysis. The primary purpose of the interim analysis was to assess performance of our therapy and, if positive, to help plan the Phase 3 program.

Discussions held with the FDA in June 2010 confirmed the appropriateness of using amputation free survival as the primary endpoint for our planned Phase 3 program. The FDA also encouraged us to submit plans for our Phase 3 program under a Special Protocol Assessment (SPA), which is currently in development. The last patient enrolled in this trial was treated in March 2010 and we expect to present six-month data on all patients in this study later this year.

Dilated Cardiomyopathy

Background

In February 2007, the FDA granted Orphan Drug Designation to our investigational therapy involving the use of our therapy in the treatment of DCM. DCM is a severe, chronic cardiovascular disease that leads to enlargement of the heart, reducing the pumping function of the heart to the point that blood circulation is impaired. Patients with DCM typically present with symptoms of congestive heart failure, including limitations in physical activity and shortness of breath. There are two types of DCM: ischemic and non-ischemic. Ischemic DCM, the most common form, is associated with atherosclerotic cardiovascular disease. Among other causes, non-ischemic DCM can be triggered by toxin exposure, virus or genetic diseases. Patient prognosis depends on the stage of the disease but is typically characterized by a high mortality rate. Other than heart transplantation or ventricular assist devices, there are currently no effective treatment options for end-stage patients with this disease. According to the book, *Heart Failure: A Combined Medical and Surgical Approach* (2007), DCM affects 200,000-400,000 patients in the United States alone.

Our DCM development program is currently in Phase 2 and we have two ongoing U.S. Phase 2 trials investigating surgical and catheter-based delivery for our product in the treatment of DCM.

Surgical Trial Program — DCM

In May 2008, the FDA activated our Investigational New Drug (IND) application for surgical delivery of our therapy. The 40-patient U.S. IMPACT-DCM clinical trial began with the treatment of the first patient in November 2008. This multi-center, randomized, controlled, prospective, open-label, Phase 2 study was designed to include 20 patients with ischemic DCM and 20 patients with non-ischemic DCM. We completed enrollment of the 40 patients in the IMPACT-DCM clinical trial in January 2010 and the final patient was treated in March 2010. We are planning to report interim results of all patients who have completed six months of follow-up during fiscal year 2011.

Participants in the IMPACT-DCM clinical trial were required to have New York Heart Association (NYHA) functional class III or IV heart failure, a left ventricular ejection fraction (LVEF) of less than or equal to 30% (60-75% is typical for a healthy person), and meet other eligibility criteria, including optimized medical therapy. Patients were randomized in an approximate 3:1 ratio of treatment to control group. Patients in the treatment group received our therapy through direct injection into the heart muscle during minimally invasive-surgery (involving a chest incision of approximately 2 inches). The primary objective of this study is to assess the safety of our therapy in patients with DCM. Efficacy measures include cardiac dimensions and tissue mass, cardiac function (e.g. cardiac output, LVEF, cardiopulmonary exercise testing parameters), cardiac perfusion and viability, as well as other efficacy endpoints. NYHA functional class and quality of life are also assessed. Patients will be followed for 12 months post-treatment.

Catheter Trial Program — DCM

In November 2009, the FDA activated our second IND application to allow for the evaluation of our therapy delivered by a percutaneous catheter as opposed to surgically. The Catheter-DCM clinical trial is designed to explore catheter-based delivery of our therapy to treat DCM patients. This multi-center, randomized, controlled, prospective, open-label, Phase 2 study will enroll up to 12 patients with ischemic DCM and 12 patients with non-ischemic DCM at clinical sites across the United States. Participants must meet the same criteria above for the IMPACT-DCM surgical trial. The first patient was enrolled into the trial in April 2010 and enrollment is progressing. As of August 31, 2010, 11 patients had been enrolled in the study and we expect to conclude enrollment by December 2010.

Production

Cell Manufacturing

In the United States, we operate a cell manufacturing facility in Ann Arbor, Michigan. The facility supports the current U.S. clinical trials and has sufficient capacity, with minor modifications, to supply our early commercialization needs. We may establish and operate larger commercial-scale cell manufacturing facilities for the U.S. market in the future to accommodate potential market growth.

We have established relationships with third parties such BioLife Solutions, Inc., Lonza Walkersville, Inc. and Invitrogen Corporation to manufacture and/or supply certain components, equipment, disposable devices and other materials used in our cell manufacturing process to develop our cell products.

There can be no assurance that we will be able to continue our present arrangements with our suppliers, supplement existing relationships or establish new relationships, or that we will be able to identify and obtain certain components, equipment, disposable devices and other materials used in our cell manufacturing process. Our dependence upon third parties for the supply and manufacture of such items could adversely affect our ability to develop and deliver commercially feasible cell products on a timely and competitive basis. See “Risk Factors.”

Cell Production Components

We have established relationships with manufacturers that are registered with the FDA as suppliers of medical products to produce various components of our patented cell manufacturing system.

Sparton Corporation, formerly Astro Instrumentation, LLC, manufactures our final assemblies, component parts, subassemblies and associated spare parts used in the instrumentation platform of our cell production system. This agreement automatically renews every 12 months unless terminated. We retain all proprietary rights to our intellectual property that is utilized by Sparton pursuant to this agreement.

Through August 2010, Moll Industries, Inc. (Moll) was our supplier of the cell culture cassettes used in the production of our products. Moll performed the manufacturing and assembly of the cassettes while we retained all rights to our intellectual property that was utilized by Moll pursuant to this agreement. In April 2010, Moll filed for bankruptcy protection in a Delaware court. As a result, we plan to engage ATEK Medical (ATEK) to manufacture our cell culture cassettes. We are in the process of finalizing the terms of our agreement with ATEK and expect that the terms will be substantially similar to those we had previously with Moll, including retention of all rights to our intellectual property.

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

Research & Development

Our proprietary cell manufacturing system has demonstrated that the mixture of cell types in our therapies is capable of developing into cardiovascular and other tissues. We have demonstrated in the laboratory that cells in our therapies can differentiate into endothelial (blood vessel) lineages. In addition, treatment in both rat and mouse models of critical limb ischemia have shown evidence of angiogenesis and increased tissue perfusion. In addition to these initial preclinical observations, we have on-going preclinical research studies designed to further characterize the mechanism of action of our product in the regeneration of cardiovascular tissues. These data support our current clinical-stage research where we are exploring the use of our therapies to regenerate cardiovascular tissue in patients with CLI and DCM.

In addition, our proprietary cell manufacturing system has demonstrated the capability to produce other types of cells. In the future, we may continue to explore the application of our manufacturing technology for the production of other cell types where there are potential opportunities to collaborate in the development of new cell therapies.

Patents and Proprietary Rights

Our success depends in part on our ability, and the ability of our licensors, to obtain patent protection for our products and processes. We have exclusive rights to approximately 25 issued U.S. patents. These patents present various claims related to the following, as well as other, areas: (i) certain methods for enabling *ex vivo* stem cell division (for cells derived from bone marrow, peripheral blood, umbilical cord blood, or the spleen) or improving the *ex vivo* production of progenitor cells, and the therapeutic use of these cells where normal bone marrow has a therapeutic effect; (ii) certain apparatus for cell culturing, including a bioreactor suitable for culturing human stem cells or human hematopoietic cells; (iii) certain methods of infecting or transfecting target cells with vectors; and (iv) a cell composition containing human stem cells or progenitor cells, or genetically modified stem cells, when such cells are produced in an *ex vivo* medium exchange culture and have been originally derived from bone marrow, peripheral blood, umbilical cord blood, or the spleen. Certain patent equivalents to the U.S. patents have also been issued in other jurisdictions including Australia, Japan, the Republic of Korea and Canada and under the European Patent Convention. In addition, we have filed applications for patents in the United States and equivalent applications in certain other countries claiming other aspects of our products and processes, including U.S. patent applications and corresponding applications in other countries related to various components of our cell manufacturing system.

The validity and breadth of claims in medical technology patents involve complex legal and factual questions and, therefore, may be highly uncertain. No assurance can be given that any patents based on pending patent applications or any future patent applications by us, or our licensors, will be issued, that the scope of any patent

protection will exclude competitors or provide competitive advantages to us, that any of the patents that have been or may be issued to us or our 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 us. Furthermore, there can be no assurance that others have not developed or will not develop similar products, duplicate any of our products or design around any patents that have been or may be issued to us or our licensors. Since patent applications in the U.S. are maintained in secrecy until they are published 18 months after filing, we also cannot be certain that others did not first file applications for inventions covered by our and our licensors' pending patent applications, nor can we be certain that we will not infringe any patents that may be issued to others on such applications.

We rely on certain licenses granted by the University of Michigan for certain patent rights. If we breach such agreements or otherwise fail to comply with such agreements, or if such agreements expire or are otherwise terminated, we may lose our rights in such patents.

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

Our success will also depend in part on our ability to develop commercially viable products without infringing the proprietary rights of others. We do not believe any of our currently contemplated products or processes infringe any existing valid issued patent. However, the results of patent litigation are unpredictable, and no assurance can be given that patents do not exist or could not be filed which would have an adverse affect on our ability to market our products or maintain our competitive position with respect to our products. If our technology components, designs, products, processes or other subject matter are claimed under other existing U.S. or foreign patents, or are otherwise protected by third party proprietary rights, we may be subject to infringement actions. In such event, we may challenge the validity of such patents or other proprietary rights or we may be required to obtain licenses from such companies in order to develop, manufacture or market our products. There can be no assurances that we 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 our proposed products or the inability to proceed with the development, manufacture or sale of products requiring such licenses, which could have a material adverse affect on our business, financial condition and results of operations. If we are required to defend ourselves against charges of patent infringement or to protect our proprietary rights against third parties, substantial costs will be incurred regardless of whether we are successful. Such proceedings are typically protracted with no certainty of success. An adverse outcome could subject us to significant liabilities to third parties and force us to curtail or cease our development and sale of our products and processes.

Certain of our and our licensors' research has been or is being funded in part by the Department of Commerce and by a Small Business Innovation Research Grant obtained from the Department of Health and Human Services. As a result of such funding, the U.S. Government has certain rights in the technology developed with such funding. These rights include a non-exclusive, fully paid-up, worldwide license under such inventions for any governmental purpose. In addition, the U.S. Government has the right to require us to grant an exclusive license under any of such inventions to a third party if the U.S. Government determines that: (i) adequate steps have not been taken to commercialize such inventions; (ii) such action is necessary to meet public health or safety needs; or (iii) such action is necessary to meet requirements for public use under federal regulations. Additionally, under the federal Bayh Dole Act, a party which acquires an exclusive license for an invention that was partially funded by a federal research grant is subject to the following government rights: (i) products using the invention which are sold in the

United States. are to be manufactured substantially in the United States, unless a waiver is obtained; (ii) the government may force the granting of a license to a third party who will make and sell the needed product if the licensee does not pursue reasonable commercialization of a needed product using the invention; and (iii) the U.S. Government may use the invention for its own needs.

Sales and Marketing

We currently do not have the sales or marketing resources required to fully commercialize our therapeutic products. We intend to advance our programs to a point where we can evaluate the options to seek a development and/or commercialization partnership, or to make the investment to complete development and commercialize a product alone. We may also choose to undertake some pilot level of sales and marketing activity while seeking a commercial partnership.

Government Regulation

Our research and development activities and the manufacturing and marketing of our products are subject to the laws and regulations of governmental authorities in the United States and other countries in which our products will be marketed. Specifically, in the United States, the FDA, among other activities, regulates new product approvals to establish safety and efficacy of these products. Governments in other countries have similar requirements for testing and marketing. In the United States, in addition to meeting FDA regulations, we are 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.

Our cell products will be regulated as somatic cell therapies/biologics/pharmaceuticals. With this classification, commercial production of our products will need to occur in registered/licensed facilities in compliance with Good Manufacturing Practice (GMP) for biologics (cellular products) or drugs.

Regulatory Process

Our products are subject to regulation as biological products under the Public Health Service Act and the Food, Drug and Cosmetic Act. Different regulatory requirements may apply to our products depending on how they are categorized by the FDA under these laws. The FDA has indicated that it intends to regulate products based on our technology as licensed biologics through the Center for Biologics Evaluation and Research. As current regulations exist, the FDA will require regulatory approval for certain human cellular- or tissue-based products, including our cell products, through a BLA submission.

Approval of new 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 our product candidates will ultimately receive regulatory approval.

Regardless of how our product candidates are regulated, the Federal Food, Drug, and Cosmetic Act and other Federal and State statutes and regulations govern or influence the research, testing, manufacture, safety, labeling, storage, record-keeping, approval, distribution, use, product 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 us to enter into government supply contracts, withdrawal of previously approved applications and criminal prosecution.

Product Approval

In order to obtain FDA approval of a new medical product, sponsors must submit proof of safety and efficacy. In most cases, such proof entails extensive preclinical studies and clinical trials. 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 we may encounter significant difficulties or costs in our efforts to obtain FDA approvals, in turn, which could delay or preclude us from marketing any products we may develop. The FDA may also require post-marketing testing and surveillance of approved products, or place other conditions on the approvals. These

requirements could cause it to be more difficult or expensive to sell the products, and could therefore restrict the commercial applications of such products. Product approvals may be withdrawn if compliance with applicable regulations is not maintained or if problems occur following commercialization. For patented technologies, delays imposed by the governmental approval process may materially reduce the period during which we will have the exclusive right to exploit such technologies.

If clinical trials of a proposed medical product are required, the manufacturer or distributor of a drug or biologic will have to submit an IND application with the FDA prior to commencing human clinical trials. The submission must be supported by data, typically including the results of preclinical and laboratory testing. Following submission of the IND, the FDA has 30 days to review the application and raise safety and other clinical trial issues. If we are not notified of objections within that period, clinical trials may be initiated, and human clinical trials may commence at a specified number of investigational sites with the number of patients approved by the FDA. We have submitted several INDs for our cell products, and we have conducted clinical trials under these INDs.

Our products will be regulated by the FDA as a licensed biologic, although there can be no assurance that the FDA will not choose to regulate this product in a different manner in the future. The FDA categorizes human cell- or tissue-based products as either minimally manipulated or more than minimally manipulated, and has determined that more than minimally manipulated products require clinical trials to demonstrate product safety and efficacy and the submission of a BLA for marketing authorization. For products that may be regulated as biologics, the FDA requires: (i) preclinical laboratory and animal testing; (ii) submission to the FDA of an IND application, which must be approved prior to the initiation of human clinical trials; (iii) adequate and well-controlled clinical trials to establish the safety and efficacy of the product for its intended use; (iv) submission to the FDA of a BLA; and (v) review and approval of the BLA as well as inspections of the manufacturing facility by the FDA prior to commercial marketing of the product.

We conduct preclinical testing for internal use and as support for submissions to the FDA. Preclinical testing generally includes various types of in-vitro laboratory evaluations of our products as well as animal studies to assess the safety and the functionality of the product. Clinical trials are identified by phases (i.e., Phase 1, Phase 2, Phase 3, etc.). Depending on the type of preclinical and/or clinical data available, the trial sponsor will submit a request to the FDA to initiate a specific phase study (e.g., a Phase 1 trial represents an initial study in a small group of patients to test for safety and other relevant factors; a Phase 2 trial represents a study in a larger number of patients to assess the safety and efficacy of a product; and, Phase 3 trials are initiated to establish safety and efficacy in an expanded patient population at multiple clinical trial sites).

The results of the preclinical tests and clinical trials are submitted to the FDA in the form of a BLA for marketing approval. The testing, clinical trials and approval process are 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 events, which can involve significant expense.

Under current requirements, facilities manufacturing biological products for commercial distribution must be licensed. To accomplish this, an establishment registration must be filed with the FDA. In addition to the preclinical studies and clinical trials, the BLA includes a description of the facilities, equipment and personnel involved in the manufacturing process. An establishment registration/license is granted on the basis of inspections of the applicant’s facilities in which the primary focus is on compliance with GMPs and the ability to consistently manufacture the product in the facility in accordance with the BLA. If the FDA finds the results of the inspection unsatisfactory, it may decline to approve the BLA, resulting in a delay in production of products.

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

Commercial Strategy

We are currently focused on utilizing our technology to produce autologous cell-based products for use in regenerative medicine applications. At such time as we satisfy applicable regulatory approval requirements, we expect the sales of our cell-based products to constitute nearly all of our product sales revenues.

We do not expect to generate positive cash flows from our consolidated operations for at least the next several years and then only if we achieve significant product sales. Until that time, we expect that our revenue sources from our current activities will consist of only minor sales of our cell products and manufacturing supplies to our academic collaborators, grant revenue, research funding and potential licensing fees or other financial support from potential future corporate collaborators.

We expect that we will need to raise significant additional funds or pursue strategic transactions or other strategic alternatives in order to complete our product development programs, complete clinical trials needed to market our products, and commercialize our products. To date, we have financed our operations primarily through public and private sales of our equity securities, and we expect to continue to seek to obtain the required capital in a similar manner. As a development stage company, we have never been profitable and do not anticipate having net income unless and until significant product sales commence. With respect to our current activities, this is not likely to occur until we obtain significant additional funding, complete the required clinical trials for regulatory approvals, and receive the necessary approvals to market our products. Through June 30, 2010, we have accumulated a net loss of approximately $213,000,000. We cannot provide any assurance that we will be able to achieve profitability on a sustained basis, if at all, obtain the required funding, obtain the required regulatory approvals, or complete additional corporate partnering or acquisition transactions.

We believe, based on our current projections of cash utilization, our available cash, cash equivalents and short-term investments of approximately $19,100,000 as of June 30, 2010 are adequate to finance our planned operations at least until June 30, 2011. However, we will need to raise a significant amount of additional funds in order to complete our product development programs, complete clinical trials needed to market our products, and commercialize these products. We cannot be certain that such funding will be available on favorable terms, if at all. Some of the factors that will impact our ability to raise additional capital and our overall success include: the rate and degree of progress of our product development, the rate of regulatory approval to proceed with clinical trial programs, the level of success achieved in clinical trials, fulfillment of the requirements for marketing authorization from regulatory bodies in the United States and other countries, the liquidity and market volatility of our equity securities, regulatory and manufacturing requirements and uncertainties, technological developments by competitors, the U.S. economic conditions regarding the availability of investment capital and other factors. If we cannot raise such funds, we may not be able to develop or enhance products, take advantage of future opportunities, or respond to competitive pressures or unanticipated requirements, which would likely have a material adverse impact on our business, financial condition and results of operations.

Competitive Environment

The biotechnology and medical device industries are characterized by rapidly evolving technology and intense competition. Our competitors include major multi-national medical device companies, pharmaceutical companies, biotechnology companies and stem cell companies operating in the fields of tissue engineering, regenerative medicine, cardiac, vascular, orthopedics and neural medicine. Many of these companies are well-established and possess technical, research and development, financial, and sales and marketing resources significantly greater than ours. In addition, many of our smaller potential competitors have formed strategic collaborations, partnerships and other types of joint ventures with larger, well established industry competitors that afford these companies potential research and development and commercialization advantages in the technology and therapeutic areas currently being pursued by us. Academic institutions, governmental agencies and other public and private research organizations are also conducting and financing research activities which may produce products directly competitive to those being commercialized by us. Moreover, many of these competitors may be able to obtain patent protection, obtain FDA and other regulatory approvals and begin commercial sales of their products before us.

Our potential commercial products address a broad range of existing and emerging therapeutic markets, in which cell-based therapy is a new and as of yet, unproven, commercial strategy. In a large part, we face primary

competition from existing medical devices and drug products. Some of our competitors have longer operating histories and substantially greater resources. These include companies such as Baxter International, Inc. (Baxter), Biomet, Inc., Johnson & Johnson, Inc., Miltenyi Biotec, Medtronic, Inc. (Medtronic), Sanofi-Aventis and others.

In the general area of cell-based therapies, including tissue regeneration applications, we potentially compete with a variety of companies, most of whom are specialty medical products or biotechnology companies. Some of these, such as Baxter, Johnson & Johnson, Medtronic, Miltenyi Biotec and Sanofi-Aventis are well-established and have substantial technical and financial resources compared to ours. However, as cell-based products are only just emerging as viable medical therapies, many of our most direct competitors are smaller biotechnology and specialty medical products companies. These include Advanced Cell Technology, Inc., Aldagen, Inc., Angioblast Systems, Inc., Arteriocyte Medical Systems, Inc., Athersys, Inc., Bioheart, Inc., Cytori Therapeutics, Inc., Gamida Cell, Genzyme Corporation, Geron Corporation, Harvest Technologies Corporation, Neostem, Inc., Mesoblast, Osiris Therapeutics, Inc., Tengion, Inc., StemCells, Inc. and others.

Employees

As of June 30, 2010, we employed approximately 45 individuals on a full-time equivalent basis. A significant number of our management and professional employees have had prior experience with pharmaceutical, biotechnology or medical product companies. None of our employees are covered by collective bargaining agreements, and management considers relations with our employees to be good.

Executive Officers

Name	Position	Age	Executive Officer Since
Timothy M. Mayleben	President and Chief Executive Officer	50	2010
Ronnda L. Bartel, Ph.D.	Chief Scientific Officer	51	2010
Scott C. Durbin	Chief Financial Officer	42	2010

Timothy M. Mayleben — Mr. Mayleben joined Aastrom as a member of the Company's Board of Directors in June 2005, and has served as our President and Chief Executive Officer since December 2009. Mr. Mayleben was formerly an advisor to life science and healthcare companies through his advisory and investment firm, ElMa Advisors. Prior to this, he served as the President and Chief Operating Officer and a Director of NightHawk Radiology Holdings, Inc. Mr. Mayleben was also formerly the Chief Operating Officer of Esperion Therapeutics, which later became a division of Pfizer Global Research & Development. He joined Esperion in late 1998 as Chief Financial Officer. While at Esperion, Mr. Mayleben led the raising of more than $200 million in venture capital and institutional equity funding and later negotiated the acquisition of Esperion by Pfizer in December 2003. Prior to joining Esperion, Mr. Mayleben held various senior and executive management positions at Transom Technologies, Inc., now part of Electronic Data Systems, Inc., and Applied Intelligent Systems, Inc., which was acquired by Electro-Scientific Industries, Inc. in 1997. Mr. Mayleben holds a Masters of Business Administration, with distinction, from the J.L. Kellogg Graduate School of Management at Northwestern University, and a Bachelor of Business Administration degree from the University of Michigan Ross School of Business. He is on the Advisory Board for the Wolverine Venture Fund and serves as a director for several private life science companies.

Ronnda L. Bartel, Ph.D. — Dr. Bartel joined Aastrom in 2006 and is responsible for research, development and manufacturing and engineering operations. Dr. Bartel has more than 20 years of research and product development experience and most recently was Executive Director, Biological Research at MicroIslet and Vice president, Scientific Development at StemCells, Inc. Earlier in her career, she was Senior Principal Scientist, Cell Biology at Advanced Tissue Sciences and was involved in the development and approval of two of the first three cell based products approved by the FDA. She has also worked as Senior Director, Science and Technology at SRS Capital, LLC evaluating life science investments and has also held positions in clinical development, drug delivery, business development and manufacturing. Dr. Bartel holds a Ph.D. in Biochemistry from the University of Kansas, completed postdoctoral work at the University of Michigan and received a B.A. in Chemistry and Biology from Tabor College.

Scott C. Durbin — Mr. Durbin joined Aastrom in June 2010 as Chief Financial Officer and brings more than 15 years of healthcare-related banking, financial and corporate development experience to Aastrom. Formerly, he was the Chief Operating Officer and Chief Financial Officer of Prescient Medical, Inc., which develops diagnostic and therapeutic catheter-based medical devices for the treatment of severe coronary artery disease. While at Prescient, Mr. Durbin raised more than $60 million in private equity financing and helped advance the company through early-stage research, development and regulatory approval. Previously he served as a finance and corporate development consultant for Scios, Inc. (a Johnson & Johnson subsidiary) and Alteon, Inc. Prior to this consulting work, he was an investment banker with Lehman Brothers, Inc. where he completed more than $5 billion in financings and M&A transactions for life science companies. Mr. Durbin earned an MPH in health management from the Yale University School of Medicine & School of Management and a BS from the University of Michigan.

Our former President, Chief Executive Officer and Chief Financial Officer, George Dunbar, resigned from these positions in December 2009.

Available Information

Additional information about Aastrom is contained at our website, www.aastrom.com. Information on our website is not incorporated by reference into this report. We make available on our website our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K as soon as reasonably practicable after those reports are filed with the Securities and Exchange Commission. The following Corporate Governance documents are also posted on our website: Code of Business Conduct and Ethics, Code of Ethics for Senior Financial Officers, Board Member Attendance at Annual Meetings Policy, Director Nominations Policy, Shareholder Communications with Directors Policy and the Charters for each of the Committees of the Board of Directors.

Item 1A. ***Risk Factors***

Our operations and financial results are subject to various risks and uncertainties, including those described below, that could adversely affect our business, financial condition, results of operations, cash flows, and trading price of our common stock. The risks and uncertainties described below are not the only ones we face. There may be additional risks and uncertainties that are not known to us or that we do not consider to be material at this time. If the events described in these risks occur, our business, financial condition, and results of operations would likely suffer.

Risks Related to our Business

Our past losses and expected future losses cast doubt on our ability to operate profitably.

We were incorporated in 1989 and have experienced substantial operating losses since inception. As of June 30, 2010, we have incurred a cumulative net loss totaling approximately $213,000,000, and we have continued to incur losses since that date. These losses have resulted principally from costs incurred in the research and development (including clinical trials) of our cell culture technologies and our cell manufacturing system, general and administrative expenses, and the prosecution of patent applications. We expect to continue to incur significant operating losses over the next several years and at least until, and probably after, product sales increase, primarily owing to our research and development programs, including preclinical studies and clinical trials, and the establishment of marketing and distribution capabilities necessary to support commercialization efforts for our products. We cannot predict with any certainty the amount of future losses. Our ability to achieve profitability will depend, among other things, on successfully completing the development of our product candidates, timely initiation and completion of clinical trials, obtaining regulatory approvals, establishing manufacturing, sales and marketing arrangements with third parties, maintaining supplies of key manufacturing components, acquisition and development of complementary activities and raising sufficient cash to fund our operating activities. Therefore, we may not be able to achieve or sustain profitability.

We may not be able to raise the required capital to conduct our operations and develop and commercialize our products.

In addition to our current financing with Fusion Capital Fund II, LLC (Fusion Capital), we will require substantial additional capital resources in order to conduct our operations and develop and commercialize our products and cell manufacturing facilities. In order to grow and expand our business, to introduce our new product candidates into the marketplace and to acquire or develop complementary business activities, we will need to raise a significant amount of additional funds. We will also need significant additional funds or a collaborative partner, or both, to finance the research and development activities of our cell product candidates for additional indications. Accordingly, we are continuing to pursue additional sources of financing.

Our future capital requirements will depend upon many factors, including:

- continued scientific progress in our research, clinical and development programs;
- costs and timing of conducting clinical trials and seeking regulatory approvals;
- competing technological and market developments;
- our ability to establish additional collaborative relationships;
- the effect of commercialization activities and facility expansions, if and as required; and
- complementary business acquisition or development opportunities.

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

Our current agreement with Fusion Capital, as described in "Management's Discussion and Analysis of Financial Condition and Results of Operations," may provide us with some of the required capital to conduct our operations; however, we expect that we will need additional capital. In addition, under certain conditions, Fusion Capital will not be required to purchase our shares, including if the market price of our common stock is less than $0.80, if we are not listed on a national securities exchange or the OTC Bulletin Board or if there is a material adverse change to our business, properties, operations, financial condition or results of operations.

Additionally, in order to be in compliance with NASDAQ Capital Market rules, we cannot be required to sell, and Fusion Capital shall not have the right or the obligation to purchase, shares of our common stock at a price below $2.88, which represents the greater of (i) the book value per share of our common stock as of March 31, 2009, or (ii) the closing sale price per share of our common stock on June 11, 2009, the business day before we entered into the purchase agreement, plus $0.08. If we elect to sell our shares of common stock to Fusion Capital at a price per share below $2.88, we may be required to obtain shareholder approval in order to be in compliance with the NASDAQ Capital Market rules.

Under the purchase agreement with Fusion Capital, we only have the right to receive $100,000 every other business day unless our stock price equals or exceeds $2.00 per share, in which case we can sell greater amounts to Fusion Capital as the price of our common stock increases. The extent to which we rely on Fusion Capital as a source of funding will depend on a number of factors including, the prevailing market price of our common stock and the extent to which we are able to secure working capital from other sources.

Even if we are able to access the full $30,000,000 under the purchase agreement with Fusion Capital, we will need additional capital to fully implement our business, operating and development plans. Should the financing we require to sustain our working capital needs be unavailable or prohibitively expensive when we require it, the consequences could have a material adverse effect on our business, operating results, financial condition and prospects.

The current credit and financial market conditions may exacerbate certain risk affecting our business.

We rely upon third parties for certain aspects of our business, including collaboration partners, wholesale distributors, contract clinical trial providers, contact manufacturers and third-party suppliers. Because of the recent tightening of global credit and the volatility in the financial markets, there may be a delay or disruption in the performance or satisfaction of commitments to us by these third parties, which could adversely affect our business.

If we cannot attract and retain key personnel, our business may suffer.

Our success depends in large part upon our ability to attract and retain highly qualified scientific and management personnel. We face competition for such personnel from other companies, research and academic institutions and other entities. Further, in an effort to conserve financial resources, we have implemented reductions in our work force on three previous occasions, most recently in fiscal 2008. As a result of these and other factors, we may not be successful in hiring or retaining key personnel. Our inability to replace any key employee could harm our operations.

Our product development programs are based on novel technologies and are inherently risky.

We are subject to the risks of failure inherent in the development of products based on new technologies. The novel nature of our therapeutics creates significant challenges in regards to product development and optimization, manufacturing, government regulation, third party reimbursement and market acceptance. As a result, the development and commercialization pathway for our therapies may be subject to increased uncertainty, as compared to the pathway for new conventional drugs.

Failure to obtain and maintain required regulatory approvals would severely limit our ability to sell our products.

We must obtain the approval of the FDA before commercial sales of our cell product candidates may commence in the United States, which we believe will ultimately be the largest market for our products. We will also

be required to obtain additional approvals from various foreign regulatory authorities to initiate sales activities of cell products in those jurisdictions. If we cannot demonstrate the safety and efficacy of our cell product candidates produced in our production system, we may not be able to obtain required regulatory approvals. If we cannot demonstrate the safety and efficacy of our product candidates produced in our production system, the FDA or other regulatory authorities could delay or withhold regulatory approval of our product candidates.

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

Any changes in the governmental regulatory classifications of our products could prevent, limit or delay our ability to market or develop our products.

The FDA establishes regulatory requirements based on the classification of a product. Because our product development programs are designed to satisfy the standards applicable to biological licensure for our cellular products, any change in the regulatory classification or designation would affect our ability to obtain FDA approval of our products. Each of these cell products is, under current regulations, regulated as a biologic, which requires a BLA.

Our inability to complete our product development activities successfully would severely limit our ability to operate or finance operations.

In order to commercialize our cell product candidates in the United States, we must complete substantial clinical trials, and obtain sufficient safety and efficacy results to support required registration approval and market acceptance of our cell product candidates. We may not be able to successfully complete the development of our product candidates, or successfully market our technologies or product candidates. We, and any of our potential collaborators, may encounter problems and delays relating to research and development, regulatory approval and intellectual property rights of our technologies and product candidates. Our research and development programs may not be successful, and our cell culture technologies and product candidates may not facilitate the production of cells outside the human body with the expected results. Our technologies and cell product candidates may not prove to be safe and efficacious in clinical trials, and we may not obtain the requisite regulatory approvals for our technologies or product candidates and the cells produced in such products. If any of these events occur, we may not have adequate resources to continue operations for the period required to resolve any issues delaying commercialization and we may not be able to raise capital to finance our continued operation during the period required for resolution of any such issues.

We must successfully complete our clinical trials to be able to market certain of our products.

To be able to market therapeutic cell products in the United States, we must demonstrate, through extensive preclinical studies and clinical trials, the safety and efficacy of our processes and product candidates. If our clinical trials are not successful, our products may not be marketable.

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

Our research programs are currently directed at improving product functionality for certain clinical indications, improving product shelf life, and decreasing the cost of manufacturing our products. These production process changes may alter the functionality of our cells and require various additional levels of experimental and clinical testing and evaluation. Any such testing could lengthen the time before these products would be commercially available.

Even if successful clinical results are reported for a product from a completed clinical trial, this does not mean that the results will be sustained over time, or will be sufficient for a marketable or regulatory approvable product.

Failure of third parties to manufacture or supply certain components, equipment, disposable devices and other materials used our cell manufacturing process, would impair our cell product development.

We rely solely on third parties such as Sparton (formerly Astro), Ethox, ATEK, Lonza and Genpore to manufacture or supply certain of our devices/manufacturing equipment. In addition, we rely solely on third parties such as BioLife and Invitrogen to manufacture and/or supply certain components, equipment, disposable devices and other materials used our cell manufacturing process to develop our cell products.

It would be difficult to obtain alternate sources of supply for many of these items on a short-term basis. If any of our key manufacturers or suppliers fails to perform their respective obligations or if our supply of certain components, equipment, disposable devices and other materials is limited or interrupted, it would impair our ability to manufacture our products which would delay our ability to conduct our clinical trials or market our product candidates on a timely and cost-competitive basis, if at all.

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

Manufacturing of our cell products in centralized facilities may increase the risk that we will not have adequate quantities of our cell products for clinical programs.

We are subject to regulatory compliance and quality assurance requirements at our production site in Ann Arbor, Michigan. This site could be subject to ongoing, periodic, unannounced inspection by regulatory agencies to ensure strict compliance with GMP regulations and other governmental regulations. We do not have redundant cell manufacturing sites. In the event our cell production facility is damaged or destroyed or is subject to regulatory restrictions, our clinical trial programs and other business prospects would be adversely affected.

Even if we obtain regulatory approvals to sell our products, lack of commercial acceptance could impair our business.

We will be seeking to obtain regulatory approvals to market our cell products for tissue repair and regeneration treatments. Even if we obtain all required regulatory approvals, we cannot be certain that our products and processes will be accepted in the marketplace at a level that would allow us to operate profitably. Our products may be unable to achieve commercial acceptance for a number of reasons, such as the availability of alternatives that are less expensive, more effective, or easier to use; the perception of a low cost-benefit ratio for the product amongst physicians and hospitals; or an inadequate level of product support from ourselves or a commercial partner. Our technologies or product candidates may not be employed in all potential applications being investigated, and any reduction in applications would limit the market acceptance of our technologies and product candidates, and our potential revenues.

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

Our ability to successfully commercialize our product candidates will depend on the extent to which government healthcare programs, such as Medicare and Medicaid, as well as private health insurers, health maintenance organizations and other third party payors will pay for our products and related treatments.

Reimbursement by third party payors depends on a number of factors, including the payor's determination that use of the product is safe and effective, not experimental or investigational, medically necessary, appropriate for the specific patient and cost-effective. Reimbursement in the United States or foreign countries may not be available or maintained for any of our product candidates. If we do not obtain approvals for adequate third party reimbursements, we may not be able to establish or maintain price levels sufficient to realize an appropriate return on our investment in product development. Any limits on reimbursement from third party payors may reduce the demand for, or negatively affect the price of, our products. For example, in the past, published studies suggested that stem cell transplantation for breast cancer, which constituted a significant portion of the overall stem cell therapy market at the time, may have limited clinical benefit. The lack of reimbursement for these procedures by insurance payors has negatively affected the marketability of our products in this indication in the past.

Managing and reducing health care costs has been a general concern of federal and state governments in the United States and of foreign governments. In addition, third party payors are increasingly challenging the price and cost-effectiveness of medical products and services, and many limit reimbursement for newly approved health care products. In particular, third party payors may limit the indications for which they will reimburse patients who use any products that we may develop. Cost control initiatives could decrease the price for products that we may develop, which would result in lower product revenues to us.

Use of animal-derived materials could harm our product development and commercialization efforts.

Some of the manufacturing materials and/or components we use in, and are critical to, implementation of our technology involve the use of animal-derived products, including fetal bovine serum. Suppliers or regulatory changes may limit or restrict the availability of such materials for clinical and commercial use. We currently purchase all of our fetal bovine sera from protected herds in Australia and New Zealand. These sources are considered to be the safest and raise the least amount of concern from the global regulatory agencies. If, for example, the so-called "mad cow disease" occurs in New Zealand or in Australia, it may lead to a restricted supply of the serum currently required for our product manufacturing processes. Any restrictions on these materials would impose a potential competitive disadvantage for our products or prevent our ability to manufacture our cell products. The FDA has issued draft regulations for controls over bovine materials. These proposed regulations do not appear to affect our ability to purchase the manufacturing materials we currently use. However, the FDA may issue final regulations that could affect our operations. Our inability to develop or obtain alternative compounds would harm our product development and commercialization efforts. There are certain limitations in the supply of certain animal-derived materials, which may lead to delays in our ability to complete clinical trials or eventually to meet the anticipated market demand for our cell products.

Given our limited internal manufacturing, sales, marketing and distribution capabilities, we need to develop increased internal capability or collaborative relationships to manufacture, sell, market and distribute our products.

We have only limited internal manufacturing, sales, marketing and distribution capabilities. As market needs develop, we intend to establish and operate commercial-scale manufacturing facilities, which will need to comply with all applicable regulatory requirements. We will also need to develop new configurations of our cell manufacturing system for these facilities to enable processes and cost efficiencies associated with large-scale manufacturing. Establishing these facilities will require significant capital and expertise. We may need to make such expenditures when there are significant uncertainties as to the market opportunity. Any delay in establishing, or difficulties in operating, these facilities will limit our ability to meet the anticipated market demand for our cell products. We intend to get assistance to market some of our future cell products through collaborative relationships with companies with established sales, marketing and distribution capabilities. Our inability to develop and maintain those relationships would limit our ability to market, sell and distribute our products. Our inability to enter into successful, long-term relationships could require us to develop alternate arrangements at a time when we need sales, marketing or distribution capabilities to meet existing demand. We may market one or more of our products through our own sales force. Our inability to develop and retain a qualified sales force could limit our ability to market, sell and distribute our cell products.

If we do not keep pace with our competitors and with technological and market changes, our products will become obsolete and our business may suffer.

The markets for our products are very competitive, subject to rapid technological changes, and vary for different candidates and processes that directly compete with our products. Our competitors may have developed, or could in the future develop, new technologies that compete with our products or even render our products obsolete. As an example, in the past, published studies have suggested that hematopoietic stem cell therapy use for bone marrow transplantation, following marrow ablation due to chemotherapy, may have limited clinical benefit in the treatment of breast cancer, which was a significant portion of the overall hematopoietic stem cell transplant market. This resulted in the practical elimination of this market for our cell-based product for this application.

Our cell manufacturing system is designed to improve and automate the processes for producing cells used in therapeutic procedures. Even if we are able to demonstrate improved or equivalent results, the cost or process of treatment and other factors may cause researchers and practitioners to not use our products and we could suffer a competitive disadvantage. Finally, to the extent that others develop new technologies that address the targeted application for our products, our business will suffer.

Risks Related to Intellectual Property

If our patents and proprietary rights do not provide substantial protection, then our business and competitive position will suffer.

Our success depends in large part on our ability to develop or license and protect proprietary products and technologies. However, patents may not be granted on any of our pending or future patent applications. Also, the scope of any of our issued patents may not be sufficiently broad to offer meaningful protection. In addition, our issued patents or patents licensed to us could be successfully challenged, invalidated or circumvented so that our patent rights would not create an effective competitive barrier. Certain patent equivalents to the U.S. patents have also been issued in other jurisdictions including Australia, Japan, the Republic of Korea, Canada and under the European Convention. Furthermore, we rely on exclusive, world-wide licenses relating to the production of human cells granted to us by the University of Michigan for certain of our patent rights. If we materially breach such agreements or otherwise fail to materially comply with such agreements, or if such agreements expire or are otherwise terminated by us, we may lose our rights under the patents held by the University of Michigan. At the latest, each of these licenses will terminate when the patent underlying the license expires. The first of these underlying patents will expire on March 21, 2012. We also rely on trade secrets and unpatentable know-how that we seek to protect, in part, by confidentiality agreements with our employees, consultants, suppliers and licensees. These agreements may be breached, and we might not have adequate remedies for any breach. If this were to occur, our business and competitive position would suffer.

Intellectual property litigation could harm our business.

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

The government maintains certain rights in technology that we develop using government grant money and we may lose the revenues from such technology if we do not commercialize and utilize the technology pursuant to established government guidelines.

Certain of our and our licensors' research have been or are being funded in part by government grants. As a result of such funding, the U.S. Government has established guidelines and have certain rights in the technology developed with the grant. If we fail to meet these guidelines, we would lose our exclusive rights to these products, and we would lose potential revenue derived from the sale of these products.

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

We face an inherent business risk of exposure to product liability claims in the event that the manufacture and/or use of our products during clinical trials, or after commercialization, results in adverse events. As a result, we may incur significant product liability exposure, which could exceed existing insurance coverage. We may not be able to maintain adequate levels of insurance at reasonable cost and/or reasonable terms. Excessive insurance costs or uninsured claims would increase our operating loss and affect our financial condition.

Risks Related to our Common Stock

Our stock price has been volatile and future sales of substantial numbers of our shares could have an adverse affect on the market price of our shares.

The market price of shares of our common stock has been volatile, ranging in closing price between $1.34 and $4.16 during the twelve month period ended June 30, 2010. The price of our common stock may continue to fluctuate in response to a number of events and factors, such as:

- clinical trial results;
- the amount of our cash resources and our ability to obtain additional funding;
- announcements of research activities, business developments, technological innovations or new products by us or our competitors;
- entering into or terminating strategic relationships;
- changes in government regulation;
- disputes concerning patents or proprietary rights;
- changes in our revenues or expense levels;
- public concern regarding the safety, efficacy or other aspects of the products or methodologies we are developing;
- news or reports from other stem cell, cell therapy or regenerative medicine companies;
- reports by securities analysts;
- status of the investment markets;
- concerns related to management transitions; and
- delisting from the NASDAQ Capital Market.

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

The sale of our common stock through future equity offerings or to Fusion Capital may cause dilution and the sale of the shares of common stock acquired by Fusion Capital could cause the price of our common stock to decline.

Sales of our common stock offered through future equity offerings may result in substantial dilution to the interests of other holders of our common stock. The sale of a substantial number of shares of our common stock to Fusion Capital or other investors, or anticipation of such sales, could make it more difficult for us to sell equity or equity-related securities in the future at a time and at a price that we might otherwise wish to effect sales.

We have authorized the sale of up to 4,500,000 shares of our common stock to Fusion Capital in connection with entering into the purchase agreement with them. We have the right to sell such shares to Fusion Capital over a

25-month period, which began on July 1, 2009. The purchase price for the common stock to be sold to Fusion Capital pursuant to the purchase agreement will fluctuate based on the price of our common stock. Fusion Capital may ultimately purchase all, or some of the 4,500,000 shares of common stock authorized for sale. In connection with the purchase agreement with Fusion Capital, we filed a registration statement with the Securities and Exchange Commission covering the shares that have been issued or that may be issued to Fusion Capital under the purchase agreement. All shares registered with the SEC are expected to be freely tradable. Fusion Capital may sell all, some or none of the shares acquired from us under the purchase agreement. If Fusion Capital sells any of the shares that it purchases from us under the purchase agreement, it would result in dilution to our existing shareholders.

Our corporate documents and Michigan law contain provisions that may make it more difficult for us to be acquired.

Our Board of Directors has the authority, without shareholder approval, to issue additional shares of preferred stock and to fix the rights, preferences, privileges and restrictions of these shares without any further vote or action by our shareholders. Michigan law contains a provision that makes it more difficult for a 10% shareholder, or its officers, to acquire a company. This authority, together with certain provisions of our charter documents, may have the effect of making it more difficult for a third party to acquire, or of discouraging a third party from attempting to acquire, control of our Company. This effect could occur even if our shareholders consider the change in control to be in their best interest.

Forward-looking statements

This report, including the documents that we incorporate by reference, contains forward-looking statements within the meaning of Section 27A of the Securities Act and Section 21E of the Securities Exchange Act. Any statements about our expectations, beliefs, plans, objectives, assumptions or future events or performance are not historical facts and may be forward-looking. These statements are often, but are not always, made through the use of words or phrases such as “anticipates,” “estimates,” “plans,” “projects,” “trends,” “opportunity,” “comfortable,” “current,” “intention,” “position,” “assume,” “potential,” “outlook,” “remain,” “continue,” “maintain,” “sustain,” “seek,” “achieve,” “continuing,” “ongoing,” “expects,” “management believes,” “we believe,” “we intend” and similar words or phrases, or future or conditional verbs such as “will,” “would,” “should,” “could,” “may,” or similar expressions. Accordingly, these statements involve estimates, assumptions and uncertainties which could cause actual results to differ materially from those expressed in them. Any forward-looking statements are qualified in their entirety by reference to the factors discussed throughout this report, and in particular those factors listed under the section “Risk Factors.”

Because the factors referred to in the preceding paragraph could cause actual results or outcomes to differ materially from those expressed in any forward-looking statements we make, you should not place undue reliance on any such forward-looking statements. Further, any forward-looking statement speaks only as of the date on which it is made, and we undertake no obligation to update any forward-looking statement or statements to reflect events or circumstances after the date on which such statement is made or to reflect the occurrence of unanticipated events. New factors emerge from time to time, and it is not possible for us to predict which factors will arise. In addition, we cannot assess the impact of each factor on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements. These forward-looking statements include statements regarding:

- potential strategic collaborations with others;
- future capital needs;
- adequacy of existing capital to support operations for a specified time;
- product development and marketing plan;
- clinical trial plans and anticipated results;
- anticipation of future losses;
- replacement of manufacturing sources;

- commercialization plans; or
- revenue expectations and operating results.

Item 1B. ***Unresolved Staff Comments***

None.

Item 2. ***Properties***

We lease approximately 30,000 square feet of office, manufacturing and research and development space in Ann Arbor, Michigan under a lease agreement. This lease was entered into in January 2007 and covers a period of six years, beginning on the date we occupied the new space in May 2007. This lease also includes two five-year options to extend the term to 2018 and 2023, respectively. We believe that our facilities are adequate for our current needs. Additional facilities may be required to support expansion for research and development activities or to assume manufacturing operations that are currently fulfilled through contract manufacturing relationships.

Item 3. ***Legal Proceedings***

We are currently not party to any material legal proceedings, although from time to time we may become involved in disputes in connection with the operation of our business.

Item 4. ***Removed and Reserved***

PART II

Item 5. ***Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchase of Equity Securities***

Since February 4, 1997, our common stock has been quoted on the NASDAQ Capital Market under the symbol "ASTM". The following table sets forth the high and low closing prices per share of common stock as reported on the NASDAQ Stock Market. Prices per share of our common stock have been adjusted for the eight-for-one reverse stock split on February 18, 2010 on a retroactive basis.

Price Range of Common Stock

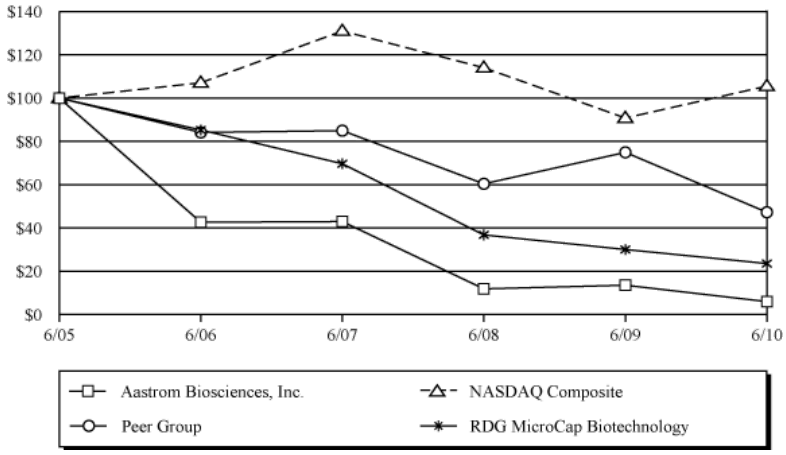
	High	Low
Year ended June 30, 2009:		
1st Quarter	$ 3.20	$ 1.76
2nd Quarter	5.44	1.28
3rd Quarter	5.84	2.64
4th Quarter	3.68	2.56
Year ended June 30, 2010:		
1st Quarter	$ 4.16	$ 2.88
2nd Quarter	3.36	2.08
3rd Quarter	2.72	1.43
4th Quarter	1.88	1.34

As of July 31, 2010, there were approximately 586 holders of record of the common stock. We have never paid any cash dividends on our common stock and we do not anticipate paying such cash dividends in the foreseeable future. We currently anticipate that we will retain all future earnings, if any, for use in the development of our business.

Comparison of Shareholder Return

Set forth below is a line graph comparing changes in the cumulative total return on Aastrom's common stock, a broad market index (the NASDAQ Composite Index), an index of biotechnology companies with under $300 million of market capitalization (the RDG MicroCap Biotechnology Index) and a peer group consisting of the following regenerative medicine companies: Advanced Cell Technology, Inc., Athersys, Inc., Bioheart, Cytori Therapeutics, Geron Corp., Osiris Therapeutics, Inc. and StemCells, Inc. The graph assumes investments of $100 on June 30, 2005 in our common stock and in each of the indices and the reinvestment of dividends.

COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN(1)
Among Aastrom Biosciences, Inc., The NASDAQ Composite Index,
The RDG MicroCap Biotechnology Index and a Peer Group



(1) $100 invested on June 30, 2005 in stock or index, including reinvestment of dividends. Fiscal year ending June 30. No cash dividends have been declared on Aastrom's common stock. Shareholder returns over the indicated period should not be considered indicative of future shareholder returns.

Aastrom/Index	6/30/05	6/30/06	6/30/07	6/30/08	6/30/09	6/30/10
Aastrom Biosciences, Inc.	100.00	42.63	42.95	11.86	13.54	5.97
NASDAQ Composite	100.00	107.08	130.99	114.02	90.79	105.54
RDG MicroCap Biotechnology	100.00	85.27	69.67	36.79	30.04	23.56
Peer Group	100.00	84.13	84.95	60.39	74.92	47.25

Equity Compensation Plan Information as of June 30, 2010

The following table sets forth information as of June 30, 2010 with respect to compensation plans (including individual compensation arrangements) under which equity securities are authorized for issuances:

	Number of Securities to be Issued upon Exercise of Outstanding Options, Warrants and Rights	Weighted Average Exercise Price of Outstanding Options, Warrants and Rights	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans
Equity compensation plans approved by security holders (employees and directors)(1)	3,323,344	$ 3.51	1,332,202(2)

(1) The material features of these securities are described in Note 3 of the Consolidated Financial Statements.

(2) Shares issuable under the 2009 Omnibus Incentive Plan.

Item 6. ***Selected Financial Data***

The statement of operations data for the years ended June 30, 2008, 2009 and 2010 and for the period from March 24, 1989 (Inception) to June 30, 2010 and the balance sheet data at June 30, 2009 and 2010, are derived from, and are qualified by reference to, the audited consolidated financial statements included in this report on Form 10-K and should be read in conjunction with those financial statements and notes thereto. The statement of operations data for the years ended June 30, 2006 and 2007, and the balance sheet data at June 30, 2006, 2007 and 2008, are derived from audited consolidated financial statements not included herein. The data set forth below are qualified by reference to, and should be read in conjunction with, the consolidated financial statements and notes thereto and "Management's Discussion and Analysis of Financial Condition and Results of Operations."

	Year Ended June 30,					March 24, 1989 (Inception) to June 30, 2010
	2006	2007	2008	2009	2010	
	(In thousands, except per share amounts)					
Statement of Operations Data:						
Revenues:						
Product sales and rentals	$ 159	$ 94	$ 208	$ 182	$ 89	$ 1,850
Research and development agreements	—	—	—	—	—	2,105
Grants	704	591	314	—	—	9,657
Total revenues	863	685	522	182	89	13,612
Costs and expenses:						
Cost of product sales and rentals(1)	11	29	56	112	34	3,035
Research and development	9,484	11,443	15,249	11,289	12,658	160,766
Selling, general and administrative	9,101	8,682	6,436	4,950	5,201	73,859
Total costs and expenses	18,596	20,154	21,741	16,351	17,893	23,660
Loss from operations	(17,733)	(19,469)	(21,219)	(16,169)	(17,804)	(224,048)
Other income (expense):						
Other income	—	—	—	—	—	1,249
Interest income	1,258	1,875	1,170	296	115	10,679
Interest expense	—	—	(84)	(73)	(40)	(464)
Net loss	$ (16,475)	$ (17,594)	$ (20,133)	$ (15,946)	$ (17,729)	$ (212,584)
Net loss applicable to common shares	$ (16,475)	$ (17,594)	$ (20,133)	$ (15,946)	$ (17,729)	$ (212,584)
Net loss per common share (basic and diluted)	$ (1.24)	$ (1.18)	$ (1.25)	$ (0.89)	$ (0.72)	
Weighted average number of common shares outstanding (basic and diluted)	13,289	14,940	16,140	17,877	24,729	

	June 30,				
	2006	2007	2008	2009	2010
			(In thousands)		
Balance Sheet Data:					
Cash, cash equivalents and short-term investments	$ 42,997	$ 28,325	$ 22,462	$ 17,000	$ 19,119
Working capital	41,126	26,677	21,963	16,104	16,857
Total assets	44,881	32,848	26,217	19,276	20,531
Long-term debt	—	1,536	1,229	784	305
Deficit accumulated during the development stage	(142,150)	(159,744)	(179,877)	(195,823)	(213,552)
Total shareholders' equity	42,342	28,251	23,334	17,284	17,791

(1) Cost of product sales and rentals for the period from Inception to June 30, 2010 include a charge of $2,239,000 for excess inventories.

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

Overview

We were incorporated in 1989 and are a regenerative medicine company focused on the development of innovative cell therapies to repair or regenerate damaged or diseased tissues. We are currently focused on developing autologous cell therapies for the treatment of severe, chronic cardiovascular diseases. Using our proprietary technology, we are able to expand the number of stem and early progenitor cells from a small amount of bone marrow (approximately 50 ml) collected from the patient. Preclinical and interim clinical data suggest that our cell therapy is effective in treating patients with critical limb ischemia (CLI) and other severe, chronic cardiovascular diseases, such as dilated cardiomyopathy (DCM). Nearly 200 patients have been treated in recent clinical trials using our current cell therapy (over 400 patients safely treated since our inception) with no treatment related adverse events or safety issues.

Our technology is an autologous, expanded cellular therapy developed, using our proprietary, fully-automated cell processing system, which utilizes "single-pass perfusion" to produce human cell products for clinical use. Single-pass perfusion is our patented manufacturing technology for growing large numbers of human cells. The production of our cell therapy products is done under current Good Manufacturing Practices (cGMP) guidelines required by the U.S. Food and Drug Administration (FDA). Our therapies begin with a small amount of the patient's own bone marrow to produce large numbers of stem and early progenitor cells, many times more than what is found in the patient's bone marrow. Our proprietary mixture of cell types may be capable of developing into cardiovascular and other tissues as well as stimulating a patient's own existing repair mechanisms.

Our cellular therapies have several features that we believe are critical for success in treating patients with severe, chronic cardiovascular diseases:

Safe — our bone marrow derived, expanded, autologous cellular therapy leverages decades of scientific and medical experience, as bone marrow and bone marrow-like therapies have been used safely and efficaciously in medicine for decades.

Autologous — we start with the patient's own cells, which are accepted by the patient's immune system allowing the cells to differentiate and integrate into existing functional tissues, and may provide long-term engraftment and repair.

Expanded — we begin with a small amount of bone marrow from a patient (approximately 50 ml) and significantly expand the number of stem and progenitor cells to more than are present in the patient's own bone marrow.

A mixed population of cells — we believe our proprietary mixture of cell populations contains the cell types required for tissue regeneration, which are also found in natural bone marrow, though in smaller quantities.

Minimally invasive — our procedure for taking bone marrow (an "aspirate") can be performed in an out-patient setting and takes approximately 15 minutes. For diseases such as CLI, the administration of our therapy can be performed in an out-patient setting in a short procedure. We are pursuing a minimally invasive approach to cell delivery in diseases such as DCM.

Our cell therapies are produced at our cell manufacturing facility in the United States, located at our headquarters in Ann Arbor, Michigan.

Our clinical development programs are focused on advancing therapies for unmet medical needs in cardiovascular diseases. Our CLI program is currently in phase 2b clinical development, and we expect it to advance to Phase 3 development in 2011. Our DCM program is in early Phase 2 clinical development and is focused on achieving proof of concept in this indication.

Results to date in our clinical trials may not be indicative of results obtained from subsequent patients enrolled in those trials or from future clinical trials. Further, our future clinical trials may not be successful or we may not be able to obtain the required Biologic License Application (BLA) registration in the United States for our products in a timely fashion, or at all. See "Risk Factors."

Critical Limb Ischemia

CLI is the most serious and advanced stage of peripheral arterial disease (PAD). PAD is a chronic disease that progressively restricts blood flow in the limbs and can lead to serious medical complications. This disease is often associated with other clinical conditions including hypertension, cardiovascular disease, hyperlipidemia, diabetes, obesity and stroke. CLI is used to describe patients with the most severe forms of PAD: those with chronic ischemia-induced pain (even at rest), ulcers, tissue loss or gangrene in the limbs, often leading to amputation and death. CLI leads to more than 160,000 amputations per year. The one-year and four-year mortality rates for no-option CLI patients that progress to amputation are approximately 25% and 80%, respectively. Our technology has shown significant promise in the treatment of CLI.

In June 2010, we reported results from the planned interim analysis of our multi-center, randomized, double-blind, placebo controlled U.S. Phase 2b RESTORE-CLI clinical trial. This clinical trial is designed to evaluate the safety and efficacy of our therapy in the treatment of patients with CLI. It is the largest multi-center, randomized, double-blind, placebo-controlled cellular therapy study ever conducted in CLI patients. We completed enrollment of this trial in February 2010 with a total of 86 patients at 18 sites across the United States. These patients are being followed for a period of 12 months following treatment. In addition to assessing the safety of our product, efficacy endpoints include amputation-free survival, time to first occurrence of treatment failure (defined as major amputation, all-cause mortality, doubling in wound size and de novo gangrene), major amputation rates, level of amputation, complete wound healing, patient quality of life, and pain scores.

Results from the RESTORE-CLI interim analysis were presented at the Society of Vascular Surgery Meeting in June 2010. The results included the finding that amputation free survival — defined as time to major amputation or death — was statistically significant in favor of our therapy (p=0.038). Additionally, statistical analysis revealed a significant increase in time to treatment failure (e.g., major amputation, doubling in wound size de novo gangrene, and death) (log-rank test, p=0.0053). Other endpoints measured (e.g., major amputation rate, complete wound healing, change in Wagner wound scale) showed encouraging trends, but had not yet reached statistical significance at the interim analysis. The primary purpose of the interim analysis was to assess performance of our therapy and, if positive, to help plan the Phase 3 program.

Discussions held with the (FDA) in June 2010 confirmed the appropriateness of using amputation free survival as the primary endpoint for our planned Phase 3 program. The FDA also encouraged us to submit plans for our Phase 3 program under a Special Protocol Assessment (SPA), which is currently in development. The last patient enrolled in this trial was treated in March 2010 and we expect to present six-month data on all patients in this study later this year.

Dilated Cardiomyopathy

In February 2007, the FDA granted Orphan Drug Designation to our investigational therapy involving the use of our therapy in the treatment of DCM. DCM is a severe, chronic cardiovascular disease that leads to enlargement of the heart, reducing the pumping function of the heart to the point that blood circulation is impaired. Patients with DCM typically present with symptoms of congestive heart failure, including limitations in physical activity and shortness of breath. There are two types of DCM: ischemic and non-ischemic. Ischemic DCM, the most common form, is associated with atherosclerotic cardiovascular disease. Among other causes, non-ischemic DCM can be triggered by toxin exposure, virus or genetic diseases. Patient prognosis depends on the stage of the disease but is typically characterized by a high mortality rate. Other than heart transplantation or ventricular assist devices, there are currently no effective treatment options for end-stage patients with this disease. According to the book, *Heart Failure: A Combined Medical and Surgical Approach* (2007), DCM affects 200,000-400,000 patients in the United States alone.

Our DCM development program is currently in Phase 2 and we have two ongoing U.S. Phase 2 trials investigating surgical and catheter-based delivery for our product in the treatment of DCM.

In May 2008, the FDA activated our IND application for surgical delivery of our therapy. The 40-patient U.S. IMPACT-DCM clinical trial began with the treatment of the first patient in November 2008. This multi-center, randomized, controlled, prospective, open-label, Phase 2 study was designed to include 20 patients with ischemic

DCM and 20 patients with non-ischemic DCM. We completed enrollment of the 40 patients in the IMPACT-DCM clinical trial in January 2010 and the final patient was treated in March 2010. We are planning to report interim results of all patients who have completed six months of follow-up during fiscal year 2011.

Participants in the IMPACT-DCM clinical trial were required to have New York Heart Association (NYHA) functional class III or IV heart failure, a left ventricular ejection fraction (LVEF) of less than or equal to 30% (60-75% is typical for a healthy person), and meet other eligibility criteria, including optimized medical therapy. Patients were randomized in an approximate 3:1 ratio of treatment to control group. Patients in the treatment group received our therapy through direct injection into the heart muscle during minimally invasive-surgery (involving a chest incision of approximately 2 inches). The primary objective of this study is to assess the safety of our therapy in patients with DCM. Efficacy measures include cardiac dimensions and tissue mass, cardiac function (e.g. cardiac output, LVEF, cardiopulmonary exercise testing parameters), cardiac perfusion and viability, as well as other efficacy endpoints. NYHA functional class and quality of life are also assessed. Patients will be followed for 12 months post-treatment.

In November 2009, the FDA activated our second IND application to allow for the evaluation of our therapy delivered by a percutaneous catheter as opposed to surgically. The Catheter-DCM clinical trial is designed to explore catheter-based delivery of our therapy to treat DCM patients. This multi-center, randomized, controlled, prospective, open-label, Phase 2 study will enroll up to 12 patients with ischemic DCM and 12 patients with non-ischemic DCM at clinical sites across the United States. Participants must meet the same criteria above for the IMPACT-DCM surgical trial. The first patient was enrolled into the trial in April 2010 and enrollment is progressing. As of August 31, 2010, 11 patients had been enrolled in the study and we expect to conclude enrollment by December 2010.

Critical Accounting Policies and Estimates

The preparation of our consolidated financial statements in accordance with U.S. generally accepted accounting principles (GAAP) requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, net revenues and expenses, and related disclosures. We believe our estimates and assumptions are reasonable; however, actual results and the timing of the recognition of such amounts could differ from these estimates.

There are accounting policies that we believe are significant to the presentation of our consolidated financial statements. The most significant accounting policy relates to stock-based compensation expense.

Stock-Based Compensation — Calculating stock-based compensation expense requires the input of highly subjective assumptions. We apply the Black-Scholes option-pricing model to determine the fair value of our stock options. Inherent in this model are assumptions related to expected stock-price volatility, option life, risk-free interest rate and dividend yield. We estimate the volatility of our common stock at the date of grant based on historical volatility. We estimate the expected life of options that vest solely on service using the "simplified method" provided for in the Securities and Exchange Commission Staff Accounting Bulletin No. 110. The "simplified method" is permitted for estimating the expected term of "plain-vanilla" stock options for which the historical stock option exercise experience is likely not indicative of future exercise patterns. The risk-free interest rate is based on the U.S. Treasury zero-coupon yield curve on the grant date for a maturity similar to the expected life of the options. The dividend rate is based on our historical rate, which we anticipate to remain at zero. The assumptions used in calculating the fair value of stock options represent our best estimates, however these estimates involve inherent uncertainties and the application of management judgment. As a result, if factors change and different assumptions are used, the stock-based compensation expense could be materially different in the future. In addition, we are required to estimate the expected forfeiture rate and only recognize expense for those stock options and restricted stock awards and units expected to vest over the service period. We estimate the forfeiture rate considering the historical experience of our stock-based awards. If the actual forfeiture rate is different from the estimate, we adjust the expense accordingly.

The summary of significant accounting policies should be read in conjunction with our consolidated financial statements and related notes and this discussion of our results of operations.

Results of Operations

Total revenues were $89,000 in 2010, $182,000 in 2009 and $522,000 in 2008. Product sales and rental revenues decreased to $89,000 in 2010 from $182,000 in 2009 and $208,000 in 2008 due to the declines in volume of cell production sales for investigator sponsored clinical trials in Spain and limited cell manufacturing supplies to a research institute in the United States. At such time as we satisfy applicable regulatory approval requirements, we expect the sales of our cell-based products will constitute nearly all of our product sales revenues.

No grant revenues were recorded for 2010 or 2009 compared to $314,000 in 2008 as there were no active grants with the National Institutes of Health. Grant revenues are recorded on a cost-reimbursement basis. Grant revenues may vary in any period based on timing of grant awards, grant-funded activities, level of grant funding and number of grants awarded.

Total costs and expenses were $17,893,000 in 2010, $16,351,000 in 2009 and $21,741,000 in 2008. The increase from 2009 to 2010 resulted from increased clinical activity related to our DCM and CLI programs. The decrease in costs and expenses from 2008 to 2009 related to the reprioritization of our development and clinical programs to focus on cardiovascular applications and reductions in our staff and overhead expenses.

Cost of product sales and rentals were $34,000 in 2010, $112,000 in 2009 and $56,000 in 2008. The fluctuations in the cost of product sales and rentals are due to the changes in the volume of product sales.

Research and development expenses were $12,658,000 in 2010, $11,289,000 in 2009 and $15,249,000 in 2008. The increase from 2009 to 2010 reflects increased clinical activity related to our DCM and CLI programs. The decrease from 2008 to 2009 reflects the changes we implemented in May 2008, when we reprioritized our clinical development programs to focus primarily on cardiovascular applications. The reprioritization reduced our overall research and development expenses, including salaries and benefits and other purchased services. Research and development expenses also include non-cash stock-based compensation expense of $484,000 in 2010, $579,000 in 2009 and $515,000 in 2008.

Selling, general and administrative expenses were $5,201,000 in 2010, $4,950,000 in 2009 and $6,436,000 in 2008. The increase from 2009 to 2010 is primarily due to increased cash compensation costs and increased legal and consulting costs offset by lower non-cash stock-based compensation expense. The decrease from 2008 to 2009 is due primarily to lower salaries and benefits that are the result of the reduction in force that was part of our reprioritization and management and employee changes in 2008. Selling, general and administrative expenses also include non-cash stock-based compensation expense of $225,000 in 2010, $783,000 in 2009 and $1,088,000 in 2008. The decrease from 2009 to 2010 was related to the reversal of previously recognized expense for options that were forfeited in excess of our estimated rate of forfeiture. Approximately $279,000 of the reversal was for certain options held by George W. Dunbar that were forfeited when he transitioned from Chief Executive Officer, President and Chief Financial Officer to Chairman of the Board of Directors on December 14, 2009.

Interest income was $115,000 in 2010, $296,000 in 2009 and $1,170,000 in 2008. The fluctuations in interest income are due primarily to corresponding changes in the levels of cash, cash equivalents and short-term investments combined with declining interest rates during the periods.

Our net loss was $17,729,000, or $0.72 per share in 2010 compared to $15,946,000, or $0.89 per share in 2009 and $20,133,000, or $1.25 per share in 2008. The changes in net loss are primarily due to the fluctuations in spending of research and development expenses from year to year.

Our major ongoing research and development programs are focused on the clinical development of our technology platform for treatment of severe, chronic cardiovascular diseases. Research and development expenses outside of the development of our technology platform consist primarily of engineering and cell production costs.

Because of the uncertainties of clinical trials and the evolving regulatory requirements applicable to our products, estimating the completion dates or cost to complete our major research and development programs would be highly speculative and subjective. The risks and uncertainties associated with developing our products, including significant and changing governmental regulation and the uncertainty of future clinical study results, are discussed in greater detail in the “Any changes in the governmental regulatory classifications of our products could prevent, limit or delay our ability to market and develop our products,” “Our inability to complete our product development

activities successfully would severely limit our ability to operate or finance operations," and "We must successfully complete our clinical trials to be able to market certain of our products," sections under the heading "Risk Factors" in Item 1A of this report. The lengthy process of seeking regulatory approvals for our product candidates, and the subsequent compliance with applicable regulations, will require the expenditure of substantial resources. Any failure by us to obtain, or any delay in obtaining, regulatory approvals could cause our research and development expenditures to increase and, in turn, have a material adverse effect on our results of operations. We cannot be certain when any net cash inflow from products validated under our major research and development project, if any, will commence.

We have not generated any net taxable income since our inception and therefore have not paid any federal income taxes since inception. We issued shares of common stock in prior years, which resulted in multiple ownership changes under relevant taxation rules (Section 382 of the Internal Revenue Code). Consequently, pursuant to these taxation rules, the utilization of net operating loss and tax credit loss and tax carryforwards will be significantly limited in future periods, even if we generate taxable income. Such limitations may result in our carryforwards expiring before we can utilize them. At June 30, 2010, we had generated cumulative U.S. federal tax net operating loss and tax credit carryforwards of $124,237,000 and $1,600,000, respectively, which will expire in various periods through 2030 if not utilized. Our ability to utilize our net operating loss and tax credit carryforwards may become subject to further annual limitation in the event of future changes in ownership under the taxation rules.

Liquidity and Capital Resources

We are currently focused on utilizing our technology to produce autologous cell-based products for use in regenerative medicine applications. At such time as we satisfy applicable regulatory approval requirements, we expect the sales of our cell-based products to constitute nearly all of our product sales revenues.

We do not expect to generate positive cash flows from our consolidated operations for at least the next several years and then only if we achieve significant product sales. Until that time, we expect that our revenue sources from our current activities will consist of only minor sales of our cell products and manufacturing supplies to our academic collaborators, grant revenue, research funding and potential licensing fees or other financial support from potential future corporate collaborators.

We expect that we will need to raise significant additional funds or pursue strategic transactions or other strategic alternatives in order to complete our product development programs, complete clinical trials needed to market our products, and commercialize our products. To date, we have financed our operations primarily through public and private sales of our equity securities, and we expect to continue to seek to obtain the required capital in a similar manner. As a development stage company, we have never been profitable and do not anticipate having net income unless and until significant product sales commence. With respect to our current activities, this is not likely to occur until we obtain significant additional funding, complete the required clinical trials for regulatory approvals, and receive the necessary approvals to market our products. Through June 30, 2010, we had accumulated a net loss of approximately $213,000,000. We cannot provide any assurance that we will be able to achieve profitability on a sustained basis, if at all, obtain the required funding, obtain the required regulatory approvals, or complete additional corporate partnering or acquisition transactions.

We have financed our operations since inception primarily through public and private sales of our equity securities, which, from inception through June 30, 2010, have totaled approximately $231,000,000 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 generally allowed us to maintain adequate levels of cash and other liquid investments.

Our combined cash, cash equivalents and short-term investments totaled $19,119,000 at June 30, 2010, an increase of $2,119,000 from June 30, 2009. During the year ended June 30, 2010, the primary source of cash, cash equivalents and short-term investments was from the sale of our equity securities in January 2010 with net proceeds of $12,432,000, in addition to $5,094,000 of equity securities issued pursuant to the July 2009 agreement with Fusion Capital. The primary uses of cash, cash equivalents and short-term investments during the year ended June 30, 2010 included $15,085,000 to finance our operations and working capital requirements, and $120,000 in capital expenditures.

Our combined cash, cash equivalents and short-term investments totaled $17,000,000 at June 30, 2009, a decrease of $5,462,000 from June 30, 2008. During the year ended June 30, 2009, the primary source of cash and cash equivalents was from equity transactions, of which proceeds of $8,534,000 were raised principally through the sales of our equity securities pursuant to the October 2008 agreement with Fusion Capital. The primary uses of cash, cash equivalents and short-term investments during the year ended June 30, 2009 included $13,805,000 to finance our operations and working capital requirements, and $35,000 in capital expenditures.

Our cash and cash equivalents included money market securities, and short-term investments included certificates of deposit with original maturities of less than twelve months.

Our future cash requirements will depend on many factors, including continued scientific progress in our 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, costs of possible acquisition or development of complementary business activities and the cost of product commercialization. We do not expect to generate positive cash flows from operations for at least the next several years due to the expected spending for research and development programs and the cost of commercializing our product candidates. We intend to seek additional funding through research and development agreements or grants, distribution and marketing agreements and through public or private debt or equity financing transactions. Successful future operations are subject to several technical and risk factors, including our continued ability to obtain future funding, satisfactory product development, obtaining regulatory approval and market acceptance for our products.

In order to grow and expand our business, to introduce our product candidates into the marketplace and to possibly acquire or develop complementary business activities, we will need to raise additional funds. We will also need additional funds or a collaborative partner, or both, to finance the research and development activities of our product candidates for the expansion of additional cell types. We expect that our primary sources of capital for the foreseeable future will be through collaborative arrangements and through the public or private sale of our equity or debt securities. There can be no assurance that such collaborative arrangements, or any public or private financing, will be available on acceptable terms, if at all, or can be sustained. Several factors will affect our ability to raise additional funding, including, but not limited to, market volatility of our common stock, continued stock market listing and economic conditions affecting the public markets generally or some portion or the entire technology sector.

We believe that we will have adequate liquidity to finance our operations, including development of our products and product candidates, via our cash and investments on hand as of June 30, 2010 until at least the end of fiscal 2011 (ending June 30, 2011). While our budgeted cash usage and operating plan for fiscal 2011 does not currently contemplate taking additional actions to reduce the use of cash over the next twelve months, we could, if necessary, delay or forego certain budgeted discretionary expenditures such as anticipated hiring plans or certain non-critical research and development expenditures. In addition, we could slow down or delay certain clinical trial activity (without jeopardizing our pursuit of a Phase 3 clinical trial for CLI) such that we will have sufficient cash on hand through the end of fiscal 2011. These estimates are based on certain assumptions which could be negatively impacted by the matters discussed under this heading and under the caption “Risk Factors,” in Item 1A of this report.

In October 2008, we entered into a common stock purchase agreement with Fusion Capital pursuant to which we were entitled to sell up to $15,000,000 of our common stock to Fusion Capital. In April 2009, we concluded the sales of the registered shares under this common stock purchase agreement. Under this purchase agreement we issued 2,836,583 shares of common stock for net proceeds of $8,600,000.

In consideration for entering into this common stock purchase agreement in October 2008, we issued to Fusion Capital 242,040 shares of our common stock as a commitment fee. We also issued to Fusion Capital an additional 139,229 shares as a pro rata commitment fee.

In June 2009, we entered into a $30,000,000 common stock purchase agreement with Fusion Capital. Concurrently with entering into the common stock purchase agreement, we entered into a registration rights agreement with Fusion Capital. Under the registration rights agreement, we filed a registration statement related to the transaction with the U.S. Securities & Exchange Commission (SEC) covering the shares that have been issued or

may be issued to Fusion Capital under the common stock purchase agreement. The SEC declared the registration statement effective on June 29, 2009.

Pursuant to the purchase agreement with Fusion Capital, we have the right to sell to Fusion Capital up to $30,000,000 of our common stock over a 25-month period, which began on July 1, 2009. Such sales can be made from time to time in amounts between $100,000 and $4,000,000, depending on certain conditions as set forth in the agreement. The number of shares that can be issued to Fusion Capital during each sale is based on a stock price that is the lower of the (a) the lowest sale price of our common stock on the purchase date or (b) the arithmetic average of the three lowest closing sale prices of our common stock during the twelve consecutive business days (ten days in certain circumstances) ending on the business day immediately preceding the purchase date (to be appropriately adjusted for any reorganization, recapitalization, non-cash dividend, stock split or other similar transaction). We control the timing and amount of any sales of shares to Fusion Capital.

Pursuant to the common stock purchase agreement with Fusion Capital, there are certain events of default which, if such an event were to occur, would eliminate Fusion Capital's obligation to purchase shares from us. Such events include, but are not limited to, (i) shares of our common stock not being listed on any one of several stock exchanges outlined in the agreement, (ii) a "material adverse change" in our business or operations, and (iii) our stock price is less than $0.80 per share. In addition, Fusion Capital shall not have the right or the obligation to purchase any shares of our common stock on any business day that the price of the common stock is below $2.88. The common stock purchase agreement may be terminated by us at any time at our discretion without any cost to us. There are no negative covenants, restrictions on future fundings, penalties or liquidated damages in the agreement. The proceeds received by us under the common stock purchase agreement will be used to conduct operations and to continue to conduct our clinical development programs.

In consideration for entering into the purchase agreement, we issued 181,530 shares of our common stock to Fusion Capital as an initial commitment fee. We will also issue from time to time up to an additional 302,550 shares to Fusion Capital as a commitment fee pro rata as we receive the $30,000,000 of future funding.

During fiscal 2010, 1,718,538 shares of the Company's common stock (including 51,432 shares related to its commitment fee) were issued to Fusion Capital for net proceeds of approximately $5,100,000. No additional shares have been issued to Fusion Capital subsequent to June 30, 2010.

On January 21, 2010, we completed the sale of 6,509,637 units (including 740,387 units sold to the underwriter pursuant to the exercise of its over-allotment option) at a public offering price of $2.08 per unit. Each unit consisted of (i) one share of our common stock, (ii) a Class A warrant to purchase 0.75 of a share of our common stock at an exercise price of $2.97 per share and (iii) a Class B warrant to purchase 0.50 of a share of our common stock at an exercise price of $2.08 per share. We received approximately $12,400,000 in net proceeds from the sale of the units (including the partially exercised option of the over-allotment), after underwriting discounts and commissions and other offering expenses. The total fair market value of the warrants at the date of issuance was approximately $4,375,000. This total fair market value was determined as a proportional amount of the gross proceeds received for the sale of the common stock, Class A and Class B warrants. The proportional amount for the warrants was determined through the use of the Black-Scholes option-pricing model and the common stock was determined using the market price of our common stock on the sale date.

The 6,509,637 units consist of an aggregate of 6,509,637 shares of our common stock, Class A warrants to purchase an aggregate of 4,882,228 shares of our common stock and Class B warrants to purchase an aggregate of 3,254,818 shares of our common stock. The Class A warrants are exercisable for a five year period commencing on July 21, 2010. The Class B warrants were exercisable at any time from January 21, 2010 through July 21, 2010 and expired unexercised.

In our underwriting agreement with Oppenheimer & Co. Inc., we agreed not to issue or sell any securities under our existing financing agreement with Fusion Capital or otherwise enter into any similar equity financing program with any third party for a period of 180 days from the date of the prospectus supplement (January 15, 2010) without the prior written consent of Oppenheimer & Co. Inc.

If we cannot raise necessary funding in the future, we may not be able to develop or enhance products, take advantage of future opportunities, or respond to competitive pressures or unanticipated requirements, which would have a material adverse impact on our business, financial condition and results of operations. See “Risk Factors” and “Notes to Consolidated Financial Statements” included herein.

Long-Term Contractual Obligations and Commitments

The following table sets forth our contractual obligations along with cash payments due each period, excluding interest payments *(in thousands)*:

		Payments Due by Period				
Contractual Obligations	Total	2011	2012	2013	2014	More then 5 Years
Operating leases	$ 3,258	$ 1,126	$ 1,153	$ 979	$ —	$ —
Long-term debt	304	225	79	—	—	—
Total	$ 3,562	$ 1,351	$ 1,232	$ 979	$ —	$ —

The Company has agreements with certain employees that would result in a cash payment to these employees upon a change-in-control event. We do not believe a change-in-control event is probable at this time but if one were to take place, the maximum total cash payout would be approximately $725,000.

New Accounting Standards

Refer to Note 1 of the consolidated financial statements in Item 8 for detail regarding accounting pronouncements.

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

As of June 30, 2010, our cash and cash equivalents included money market securities, therefore, we would not expect our operating results or cash flows to be affected to any significant degree by the effect of a sudden change in market interest rates or credit conditions on our securities portfolio.

Our sales to customers in foreign countries are denominated in U.S. dollars or Euros. Our vendors, employees and clinical sites in countries outside the U.S. are typically paid in Euros. However, such expenditures have not been significant to date. Accordingly, we are not directly exposed to significant market risks from currency exchange rate fluctuations. We believe that the interest rate risk related to our accounts receivable is not significant. We manage the risk associated with these accounts through periodic reviews of the carrying value for non-collectability and establishment of appropriate allowances. We do not enter into hedging transactions and do not purchase derivative instruments.

Item 8. ***Financial Statements and Supplementary Data***

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

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

In our opinion, the accompanying consolidated balance sheets and the related consolidated statements of operations, shareholders' equity and comprehensive loss and cash flows present fairly, in all material respects, the financial position of Aastrom Biosciences, Inc. and its subsidiaries (a development stage company) at June 30, 2010 and 2009, and the results of their operations and their cash flows for each of the three years in the period ended June 30, 2010, and for the period from March 24, 1989 (Inception) to June 30, 2010, in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of June 30, 2010, based on criteria established in *Internal Control — Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for these financial statements, for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Report on Internal Control over Financial Reporting, appearing under Item 9A of this Annual Report on Form 10-K. Our responsibility is to express opinions on these financial statements and on the Company's internal control over financial reporting based on our integrated audits. We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ PricewaterhouseCoopers LLP
PricewaterhouseCoopers LLP
Detroit, Michigan
September 7, 2010

AASTROM BIOSCIENCES, INC.
(a clinical development stage company)

CONSOLIDATED BALANCE SHEETS

	June 30, 2009	June 30, 2010
	(In thousands)	
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	$ 17,000	$ 14,119
Short-term investments	—	5,000
Receivables, net	58	16
Inventories	1	—
Other current assets	732	383
Total current assets	17,791	19,518
PROPERTY AND EQUIPMENT, NET	1,485	1,013
Total assets	$ 19,276	$ 20,531
LIABILITIES AND SHAREHOLDERS' EQUITY		
CURRENT LIABILITIES:		
Accounts payable and accrued expenses	$ 853	$ 1,749
Accrued employee benefits	355	686
Current portion of long-term debt	479	226
Total current liabilities	1,687	2,661
LONG-TERM DEBT	305	79
COMMITMENTS AND CONTINGENCIES (Notes 6 and 7)		
SHAREHOLDERS' EQUITY:		
Common Stock, no par value; shares authorized — 31,250 and 62,500, respectively; shares issued and outstanding — 20,028 and 28,256, respectively	213,107	231,343
Deficit accumulated during the development stage	(195,823)	(213,552)
Total shareholders' equity	17,284	17,791
Total liabilities and shareholders' equity	$ 19,276	$ 20,531

The accompanying Notes to Consolidated Financial Statements are an integral part of these statements.

AASTROM BIOSCIENCES, INC.
(a clinical development stage company)

CONSOLIDATED STATEMENTS OF OPERATIONS

	Year Ended June 30,			March 24, 1989 (Inception) to June 30, 2010
	2008	2009	2010	
	(In thousands, except per share amounts)			
REVENUES:				
Product sales and rentals	$ 208	$ 182	$ 89	$ 1,850
Research and development agreements	—	—	—	2,105
Grants	314	—	—	9,657
Total revenues	522	182	89	13,612
COSTS AND EXPENSES:				
Cost of product sales and rentals	56	112	34	3,035
Research and development	15,249	11,289	12,658	160,766
Selling, general and administrative	6,436	4,950	5,201	73,859
Total costs and expenses	21,741	16,351	17,893	237,660
LOSS FROM OPERATIONS	(21,219)	(16,169)	(17,804)	(224,048)
OTHER INCOME (EXPENSE):				
Other income	—	—	—	1,249
Interest income	1,170	296	115	10,679
Interest expense	(84)	(73)	(40)	(464)
Total other income	1,086	223	75	11,464
NET LOSS	$ (20,133)	$ (15,946)	$ (17,729)	$ (212,584)
NET LOSS PER SHARE (Basic and Diluted)	$ (1.25)	$ (0.89)	$ (0.72)	
Weighted average number of common shares outstanding (Basic and Diluted)	16,140	17,877	24,729	

The accompanying Notes to Consolidated Financial Statements are an integral part of these statements.

AASTROM BIOSCIENCES, INC.
(a clinical development stage company)

CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY AND COMPREHENSIVE LOSS

	Preferred Stock		Common Stock		Deficit Accumulated During the Development Stage	Total Shareholders' Equity
	Shares	Amount	Shares	Amount		
	(In thousands, except per share data)					
BALANCE, MARCH 24, 1989 (Inception)	—	$ —	—	$ —	$ —	$ —
Net loss and comprehensive loss					(158,776)	(158,776)
Issuance of common stock for cash, services and license rights			149	2,336		2,336
Issuance of Series A through Series E Preferred Stock for cash, net of issuance costs of $342	9,452	34,218				34,218
Issuance of Series E Preferred Stock at $17.00 per Share	206	3,500		(3,500)		—
Exercise of stock options and stock purchase warrants, and issuance of stock under Employee Stock Purchase Plan			982	5,716		5,716
Issuance of Stock Purchase Rights for cash in September 1995 and March 1996				3,500		3,500
Principal payment received under shareholder note Receivable				31		31
Initial public offering of common stock at $56.00 per share, net of issuance costs of $2,865			406	19,885		19,885
Conversion of preferred stock	(11,866)	(55,374)	2,720	55,374		—
Compensation expense related to stock options and warrants granted				5,414		5,414
Issuance of 5.5% Convertible Preferred Stock at $5.00 per share, net of issuance costs of $1,070	2,200	9,930				9,930
Issuance of 1998 Series I Convertible Preferred Stock at $1,000 per share, net of issuance costs of $460	5	4,540	5	149		4,689
Issuance of 1999 Series III Convertible Preferred Stock at $1,000 per share, net of issuance costs of $280	3	2,720	6	90		2,810
Issuance of common stock, net of issuance costs of $9,147			10,612	97,821		97,821
Issuance of restricted stock, net of cancellations			39	—		—
Issuance of stock under Direct Stock Purchase Plan			68	750		750
Dividends and yields on preferred stock		466	19	502	(968)	—
Repurchase and retirement of Common Shares Outstanding			(4)	(73)		(73)
BALANCE, JUNE 30, 2007	—	—	15,002	187,995	(159,744)	28,251
Net loss and comprehensive loss					(20,133)	(20,133)
Exercise of stock options and stock purchase warrants			106	995		995
Issuance of restricted stock			8	—		—
Cancellation of restricted stock			(11)	—		—
Issuance of stock under Direct Stock Purchase Plan			23	186		186
Compensation expense related to stock options and restricted stock awards and units granted			—	1,603		1,603
Issuance of common stock, net of issuance costs of $1,068			1,479	12,432		12,432
BALANCE, JUNE 30, 2008	—	—	16,607	203,211	(179,877)	23,334
Net loss and comprehensive loss					(15,946)	(15,946)
Issuance of restricted stock and units			19	—		—
Cancellation of restricted stock			(1)	—		—
Issuance of stock under Direct Stock Purchase Plan			3	7		7
Compensation expense related to stock options and restricted stock awards and units granted			—	1,362		1,362
Issuance of common stock, net of issuance costs of $1,682			3,400	8,527		8,527
BALANCE, JUNE 30, 2009	—	—	20,028	213,107	(195,823)	17,284
Net loss and comprehensive loss					(17,729)	(17,729)
Compensation expense related to stock options and restricted stock awards and units granted			—	710		710
Issuance of common stock, net of issuance costs of $1,265			8,228	17,526		17,526
BALANCE, JUNE 30, 2010	—	$ —	28,256	$ 231,343	$ (213,552)	$ 17,791

The accompanying Notes to Consolidated Financial Statements are an integral part of these statements.

AASTROM BIOSCIENCES, INC.
(a clinical development stage company)

CONSOLIDATED STATEMENTS OF CASH FLOWS

	Year Ended June 30,			March 24, 1989 (Inception) to June 30, 2010
	2008	2009	2010	
	(In thousands)			
OPERATING ACTIVITIES:				
Net loss	$ (20,133)	$ (15,946)	$ (17,729)	$ (212,584)
Adjustments to reconcile net loss to net cash used for operating activities:				
Depreciation and amortization	732	704	592	6,592
Loss on property held for resale	—	—	—	110
Amortization of discounts and premiums on Investments	(381)	(30)	—	(1,704)
Stock compensation expense	1,603	1,362	710	9,099
Inventory write downs and reserves	—	—	—	2,239
Stock issued pursuant to license agreement	—	—	—	3,300
Provision for losses on accounts receivable	—	—	—	204
Changes in operating assets and liabilities:				
Receivables	60	(40)	42	(265)
Inventories	8	(1)	1	(2,335)
Other current assets	(58)	592	72	(363)
Accounts payable and accrued expenses	(867)	(54)	896	1,692
Accrued employee benefits	(491)	(392)	331	686
Net cash used for operating activities	(19,527)	(13,805)	(15,085)	(193,328)
INVESTING ACTIVITIES:				
Organizational costs	—	—	—	(73)
Purchase of short-term investments	(30,703)	—	(5,000)	(217,041)
Maturities of short-term investments	40,000	6,000	—	213,745
Property and equipment purchases	(215)	(35)	(120)	(5,881)
Proceeds from sale of property held for resale	—	—	—	400
Net cash provided by (used for) investing activities	9,082	5,965	(5,120)	(8,850)
FINANCING ACTIVITIES:				
Net proceeds from issuance of preferred stock	—	—	—	51,647
Net proceeds from issuance of common stock	13,613	8,534	17,526	162,871
Repurchase of common stock	—	—	—	(49)
Payments received for stock purchase rights	—	—	—	3,500
Payments received under shareholder notes	—	—	—	31
Restricted cash used as compensating balance	241	259	277	—
Proceeds from long-term debt	—	—	—	751
Payments on long-term debt	(356)	(445)	(479)	(2,454)
Net cash provided by financing activities	13,498	8,348	17,324	216,297
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	3,053	508	(2,881)	14,119
CASH AND CASH EQUIVALENTS AT BEGINNING OF PERIOD	13,439	16,492	17,000	—
CASH AND CASH EQUIVALENTS AT END OF PERIOD	$ 16,492	$ 17,000	$ 14,119	$ 14,119
SUPPLEMENTAL CASH FLOW INFORMATION:				
Interest paid	$ 84	$ 73	$ 40	$ 464
Equipment acquired under capital lease obligations	$ —	$ —	$ —	$ 1,174

The accompanying Notes to Consolidated Financial Statements are an integral part of these statements.

AASTROM BIOSCIENCES, INC.
(a clinical development stage company)

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Organization and Summary of Significant Accounting Policies

Aastrom Biosciences, Inc. was incorporated in March 1989 (Inception), began employee-based operations in 1991, and is in the development stage. The Company operates its business in one reportable segment — research and product development involving the development of autologous cell products for use in regenerative medicine.

Successful future operations are subject to several technical hurdles and risk factors, including satisfactory product development, timely initiation and completion of clinical trials, regulatory approval and market acceptance of the Company's products and the Company's continued ability to obtain future funding.

The Company is subject to certain risks related to the operation of its business and development of its products and product candidates. The Company believes that it will have adequate liquidity to finance its operations, including development of its products and product candidates, via its cash and investments on hand as of June 30, 2010 until at least the end of fiscal 2011 (ending June 30, 2011). While the Company's budgeted cash usage and operating plan for fiscal 2011 does not currently contemplate taking additional actions to reduce the use of cash over the next twelve months, the Company could, if necessary, delay or forego certain budgeted discretionary expenditures such as anticipated hiring plans or certain non-critical research and development expenditures, as well as slow down or delay certain clinical trial activity (without jeopardizing our pursuit of a Phase 3 clinical trial for CLI) such that the Company will have sufficient cash on hand through the end of fiscal 2011. On a longer-term basis, the Company will need to raise additional funds in order to complete its product development programs, complete clinical trials needed to market its products, and commercialize these products. The Company cannot be certain that such funding will be available on favorable terms, if at all. Some of the factors that will impact the Company's ability to raise additional capital and its overall success include: the rate and degree of progress for its product development, the rate of regulatory approval to proceed with clinical trial programs, the level of success achieved in clinical trials, the requirements for marketing authorization from regulatory bodies in the United States and other countries, the liquidity and market volatility of the Company's equity securities, regulatory and manufacturing requirements and uncertainties, technological developments by competitors, and other factors. If the Company cannot raise such funds, it may not be able to develop or enhance products, take advantage of future opportunities, or respond to competitive pressures or unanticipated requirements, which would likely have a material adverse impact on the Company's business, financial condition and results of operations.

Suppliers — Some of the key components used to manufacture the Company's products come from single or limited sources of supply.

Principles of Consolidation — The consolidated financial statements include the accounts of Aastrom and its wholly-owned subsidiaries, Aastrom Biosciences GmbH, located in Berlin, Germany, Aastrom Biosciences, SL, located in Barcelona, Spain, and Aastrom Biosciences, Ltd. located in Dublin, Ireland (collectively, the Company). All inter-company transactions and accounts have been eliminated in consolidation. As of June 30, 2010, all subsidiaries had limited operations and are not currently a significant component of the consolidated financial statements.

Cash and Cash Equivalents — Cash and cash equivalents include cash and highly liquid short-term investments with original maturities of three months or less.

Fair Value Measurements — Effective July 1, 2008, the Company adopted new accounting standards for fair value measurement which requires financial assets and liabilities to be measured at fair value on a recurring basis. The Company adopted the fair value provisions for non-financial assets and liabilities for interim and annual periods as of July 1, 2009. In addition to expanding the disclosures surrounding fair value measurements, the fair value accounting standards define fair value as the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. As such, fair value is determined based upon

AASTROM BIOSCIENCES, INC.
(a clinical development stage company)

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

assumptions that market participants would use in pricing an asset or liability. Fair value measurements are rated on a three-tier hierarchy as follows:

- Level 1 inputs: Quoted prices (unadjusted) for identical assets or liabilities in active markets;
- Level 2 inputs: Inputs, other than quoted prices included in Level 1 that are observable either directly or indirectly; and
- Level 3 inputs: Unobservable inputs for which there is little or no market data, which require the reporting entity to develop its own assumptions.

In many cases, a valuation technique used to measure fair value includes inputs from multiple levels of the fair value hierarchy described above. The lowest level of significant input determines the placement of the entire fair value measurement in the hierarchy.

At June 30, 2010, the Company had $14,119,000 invested in three money market funds with maturities of three months or less that are included within the “Cash and cash equivalents” line on the Consolidated Balance Sheet. Because there is an active market for shares in the money market funds, the Company considers its fair value measures of these investments to be based on Level 1 inputs. No other assets or liabilities on the Consolidated Balance Sheet are measured at fair value.

Short-term investments — The Company had $5,000,000 invested in certificates of deposit with original maturities of over three months and less than one year. These investments are carried at cost which approximates fair value.

Diversity of Credit Risk — The Company has established guidelines relative to diversification and maturities of its investments in an effort to limit risk. These guidelines are periodically reviewed and modified to take advantage of trends in yields and interest rates. The Company has not experienced any losses on its cash equivalents or short-term investments.

Property and Equipment — Property and equipment is recorded at cost and depreciated or amortized using the straight-line method over the estimated useful life of the asset (primarily three to five years) or the underlying lease term for leasehold improvements, whichever is shorter. Depreciation expense was $732,000, $704,000, 592,000 and $6,592,000 for the years ended June 30, 2008, 2009, 2010 and for the period from Inception to June 30, 2010, respectively. When assets are disposed of, the cost and accumulated depreciation are removed from the accounts. Repairs and maintenance are charged to expense as incurred.

Revenue Recognition — The Company’s revenue can be generated from grants and research agreements, collaborative agreements and product sales. Revenue from grants and research agreements is recognized on a cost reimbursement basis consistent with the performance requirements of the related agreement. Revenue from collaborative agreements is recognized when the scientific or clinical results stipulated in the agreement have been met and there are no ongoing obligations on the Company’s part. Revenue from product sales is recognized when title to the product transfers and there are no remaining obligations that will affect the customer’s final acceptance of the sale. Revenue from licensing fees under licensing agreements is recognized when there are no future performance obligations remaining with respect to such revenues. Payments received before all obligations are fulfilled are classified as deferred revenue.

Research and Development Costs — Research and development costs are expensed as incurred.

Stock-Based Compensation — The Company recognizes compensation expense, net of an estimated forfeiture rate, and therefore only recognizes compensation expense for those option grants and restricted stock awards and units expected to vest over the service period.

AASTROM BIOSCIENCES, INC.
(a clinical development stage company)

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Income Taxes — Deferred tax assets are recognized for deductible temporary differences and tax credit carryforwards and deferred tax liabilities are recognized for taxable temporary differences. Deferred tax assets are reduced by a valuation allowance when, in the opinion of management, it is more likely than not that some portion or all of the deferred tax assets will not be realized.

Net Loss Per Share — Net loss per common share is computed using the weighted-average number of common shares outstanding during the period. Common equivalent shares are not included in the diluted per share calculation where the effect of their inclusion would be anti-dilutive. The aggregate number of common equivalent shares (related to options and warrants) that have been excluded from the computations of diluted net loss per common share for the periods ended June 30, 2008, 2009 and 2010 was approximately 2,509,000, 2,228,200 and 12,200,500, respectively.

On February 18, 2010, the Company's board of directors, by unanimous written consent, authorized an eight-for-one reverse stock split. Accordingly, all references to numbers of common stock and per share data in the accompanying financial statements have been adjusted to reflect the reverse stock split on a retroactive basis.

Use of Estimates — The preparation of financial statements in accordance with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements and the reported amounts of expenses during the reported period. Actual results could differ from those estimates.

Financial Instruments — The Company's financial instruments include cash equivalents, short-term investments and accounts receivable for which the current carrying amounts approximate market value based upon their short-term nature.

Long-Lived Assets — The Company reviews its long-lived assets for impairment whenever an event or change in circumstances indicates that the carrying values of an asset may not be recoverable. If such an event or change in circumstances occurs and potential impairment is indicated because the carrying values exceed the estimated future undiscounted cash flows of the asset, the Company would measure the impairment loss as the amount by which the carrying value of the asset exceeds its fair value. No significant events or changes in circumstances were identified by the Company that would indicate that the carrying value of an asset was not recoverable for any of the periods presented in the accompanying financial statements.

New Accounting Standard — In June 2009, the FASB established the Accounting Standards Codification (Codification), which became the single source of authoritative United States accounting and reporting standards for all non-governmental entities (other than guidance issued by the SEC). The Codification is a reorganization of current GAAP into a topical format that eliminates the current GAAP hierarchy and establishes two levels of guidance — authoritative and non-authoritative. All "non-grandfathered, non-SEC accounting literature" that is not included in the Codification is considered non-authoritative. The Codification does not change current GAAP. Instead, the changes aim to (1) reduce the time and effort it takes for users to research accounting questions and (2) improve the usability of current accounting standards. The Codification was effective for interim and annual periods ending on or after September 15, 2009. The Company applied the Codification to its disclosures beginning with the first quarter ended September 30, 2009. As the Codification was not intended to change the existing accounting guidance, its adoption did not have an impact on the Company's results of operations and financial condition.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

2. Selected Balance Sheet Information

Property and Equipment (*in thousands)*:

	June 30, 2009	June 30, 2010
Machinery and equipment	$ 2,493	$ 2,511
Furniture and fixtures	469	469
Computer software	410	410
Computer equipment	262	278
Office equipment	75	75
Leasehold improvements	891	922
	4,600	4,665
Less accumulated depreciation and amortization	(3,115)	(3,652)
	$ 1,485	$ 1,013

Accounts Payable and Accrued Expenses (in thousands):

	June 30, 2009	June 30, 2010
Accounts payable	$ 248	$ 973
Accrued expenses		
Clinical trials	184	195
Other	421	581
	$ 853	$ 1,749

Accrued Employee Benefits (in thousands):

	June 30, 2009	June 30, 2010
Accrued vacation pay	$ 352	$ 279
Bonus	—	300
Severance	—	105
Other	3	2
	$ 355	$ 686

3. Stock-Based Compensation

Stock Option and Equity Incentive Plans

The Company has historically had various stock incentive plans and agreements that provide for the issuance of nonqualified and incentive stock options as well as other equity awards. Such awards may be granted by the Company's Board of Directors to certain of the Company's employees, directors and consultants. Options granted under these plans expire no later than ten years from the date of grant, and other than those granted to non-employee directors, generally become exercisable over a four-year period (other than 443,125 of options granted in October 2008 that vest over 3 years), under a graded-vesting methodology, following the date of grant.

In December 2009, the shareholders approved the 2009 Omnibus Incentive Plan (the 2009 Plan). The 2009 Plan provides incentives through the grant of stock options, stock appreciation rights, restricted stock awards and restricted stock units. The exercise price of stock options granted under the 2009 Plan shall not be less than the fair market value of the Company's common stock on the date of grant. The 2009 Plan replaced the 1992 Stock Option

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Plan, the 2001 Stock Option Plan and the Amended and Restated 2004 Equity Incentive Plan (the Prior Plans), and no new awards will be granted under the Prior Plans. However, the expiration or cancellation of options previously granted under the Prior Plans will increase the awards available for issuance under the 2009 Plan.

As of June 30, 2010, there were 1,332,202 of awards available for future grant under the 2009 Plan.

Service-Based Stock Options

During the year ended June 30, 2010, the Company granted 2,508,525 service-based options to purchase common stock. These were granted with exercise prices equal to the fair value of the Company's stock at the grant date, vest over four years (other than 274,000 non-employee director options which generally vest over three years) and have lives of ten years. The weighted average grant-date fair value of service-based options granted under the Company's Option Plans during the years ended June 30, 2008, 2009 and 2010 was $5.36, $2.08 and $1.33, respectively.

The net compensation costs recorded for the service-based stock options related to employees and directors (including the impact of the forfeitures) were approximately $1,597,000, $1,292,000 and $698,000 for the years ended June 30, 2008, 2009 and 2010, respectively.

The fair value of each service-based stock option grant for the reported periods is estimated on the date of the grant using the Black-Scholes option-pricing model using the weighted average assumptions noted in the following table.

	Year Ended June 30,		
Service-Based Stock Options	**2008**	**2009**	**2010**
Expected dividend rate	0%	0%	0%
Expected stock price volatility	61.2% - 62.4%	61.2% - 72.7%	70.2% - 72.8%
Risk free interest rate	3.1% - 4.7%	2.0% - 3.3%	2.4% - 3.1%
Estimated forfeiture rate (per annum)	10%	10%	10%
Expected life (years)	6.6 - 7.0	6.6	5.5 - 6.3

The following table summarizes the activity for service-based stock options for the indicated periods:

Service-Based Stock Options	**Options**	**Weighted Average Exercise Price**	**Weighted Average Remaining Contractual Term**	**Aggregate Intrinsic Value**
Outstanding at June 30, 2007	1,044,692	$ 11.68	7.8	$ 1,093,000
Granted	336,363	$ 8.40		
Exercised	(2,315)	$ 3.04		$ 3,000
Forfeited or expired	(311,842)	$ 12.24		
Outstanding at June 30, 2008	1,066,898	$ 10.48	7.8	$ 1,000
Granted	498,750	$ 3.12		
Forfeited or expired	(200,265)	$ 10.88		
Outstanding at June 30, 2009	1,365,382	$ 7.76	7.9	$ 114,000
Granted	2,508,525	$ 2.02		
Forfeited or expired	(590,727)	$ 7.63		
Outstanding at June 30, 2010	3,283,180	$ 3.40	8.6	$ 2,750
Exercisable at June 30, 2010	779,639	$ 7.33	5.4	$ —

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

As of June 30, 2010 there was approximately $2,004,000 of total unrecognized compensation cost related to non-vested service-based stock options granted under the 2009 Plan and the Prior Plans. That cost is expected to be recognized over a weighted-average period of 1.9 years.

In July 2010, the Company granted 280,000 service-based options to employees under the 2009 Plan. These options were granted with an exercise price equal to the fair value of the Company's stock at the grant date and fully vest four years from the grant date.

Performance-Based Stock Options

During the year ended June 30, 2008, the Board of Directors granted 8,675 performance-based stock options to key employees in three equal tranches. The weighted average grant-date fair value of performance-based options granted under the Company's Option Plans during the year ended June 30, 2008 was $5.36. These performance options have a 10 year life and exercise prices equal to the fair value of the Company's stock at the grant date. Vesting of these performance options is dependent on (i) the passage of time subsequent to the grant date and (ii) meeting certain performance conditions, which relate to our progress in our clinical trial programs, which were established by the Board of Directors. The Board of Directors will determine if the performance conditions have been met. Stock-based compensation expense for these options will be recorded when the Company believes that the vesting of these options is probable based on the progress of its clinical trial programs and other relevant factors.

The first tranche expired on March 31, 2008 unvested; the second tranche will vest if performance conditions are met by June 2011; and the third tranche will vest if performance conditions are met by June 2012. Each tranche of options is forfeited if its performance conditions are not met by the required timeframe, and vesting for any tranche of options is not dependent on the vesting of the other tranches of options.

For the years ended June 30, 2008, 2009 and 2010, management reviewed the progress toward the performance conditions necessary for these options to vest and concluded that it was not yet probable that the performance conditions of any of the tranches of options would be met and, accordingly, no compensation expense has been recorded.

The fair value of the performance-based stock option grants for the reported periods is estimated on the date of the grant using the Black-Scholes option-pricing model using the assumptions noted in the following table.

Performance-Based Stock Options	June 30, 2008
Expected dividend rate	0%
Expected stock price volatility	66%
Risk free interest rate	4.7%
Estimated forfeiture rate	0%
Expected life (years)	6.9

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The following table summarizes the activity for performance-based stock options for the indicated periods:

Performance-Based Stock Options	Options	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term	Aggregate Intrinsic Value
Outstanding at June 30, 2007	310,050	$ 12.00	9.3	$ 0
Granted	8,675	$ 12.24		
Forfeited or expired	(157,741)	$ 12.08		
Outstanding at June 30, 2008	160,984	$ 11.92	8.5	$ 0
Forfeited or expired	(50,817)	$ 12.24		
Outstanding at June 30, 2009	110,167	$ 11.76	7.2	$ 0
Forfeited or expired	(70,003)	$ 11.53		
Outstanding at June 30, 2010	40,164	$ 12.17	6.4	$ 0

The aggregate estimated fair value of awards that were outstanding as of June 30, 2010 was approximately $326,000.

Restricted Stock Awards

Restricted stock awards generally vest over a four year period and entitle the recipient to receive common stock. The net compensation costs charged as operating expenses for restricted stock for the years ended June 30, 2008, 2009 and 2010 were $6,000, $69,000 and $11,000, respectively.

The following table summarizes the activity for restricted stock awards for the indicated periods:

Non-Vested Restricted Shares	Shares	Weighted Average Grant Date Fair Value
Non-vested at June 30, 2007	27,508	$ 17.52
Granted	8,037	$ 5.60
Vested	(13,435)	$ 14.00
Forfeited	(11,007)	$ 17.20
Non-vested at June 30, 2008	11,103	$ 13.44
Granted	19,400	$ 2.32
Vested	(16,728)	$ 6.08
Forfeited	(1,256)	$ 14.80
Non-vested at June 30, 2009	12,519	$ 5.92
Vested	(12,447)	$ 5.86
Forfeited	(72)	$ 12.08
Non-vested at June 30, 2010	—	—

The total market value (at the vesting date) of restricted stock award shares that vested during the year ended June 30, 2008, 2009 and 2010 was $63,000, $9,000 and $37,000, respectively.

As of June 30, 2010 there was no unrecognized compensation cost related to restricted stock awards.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

4. Shareholders' Equity

In October 2008, the Company entered into a common stock purchase agreement with Fusion Capital Fund II, LLC ("Fusion Capital") pursuant to which the Company was entitled to sell up to $15,000,000 of its common stock to Fusion Capital. On April 29, 2009, the Company concluded the sales of the registered shares under this common stock purchase agreement. Under this purchase agreement the Company issued 2,836,583 shares of common stock for net proceeds of $8,600,000. In connection with entering into this common stock purchase, the Company issued to Fusion Capital 242,040 shares of its common stock as a commitment fee. The Company also issued to Fusion Capital an additional 139,229 shares as a pro rata commitment fee.

On June 12, 2009, the Company entered into a $30,000,000 common stock purchase agreement with Fusion Capital. Concurrently with entering into the common stock purchase agreement, the Company entered into a registration rights agreement with Fusion Capital. Under the registration rights agreement, the Company filed a registration statement related to the transaction with the U.S. Securities & Exchange Commission (SEC) covering the shares that have been issued or may be issued to Fusion Capital under the common stock purchase agreement. The SEC declared the registration statement effective on June 29, 2009.

Pursuant to the purchase agreement with Fusion Capital, the Company has the right to sell to Fusion Capital up to $30,000,000 of its common stock over a 25-month period, which began on July 1, 2009. Such sales shall be made from time to time in amounts between $100,000 and $4,000,000, depending on certain conditions as set forth in the agreement. The number of shares that can be issued to Fusion Capital during each sale is based on a stock price that is the lower of the (a) the lowest sale price of the Company's common stock on the purchase date or (b) the arithmetic average of the three (3) lowest closing sale prices of the Company's common stock during the 12 consecutive business days (ten days in certain circumstances) ending on the business day immediately preceding the purchase date (to be appropriately adjusted for any reorganization, recapitalization, non-cash dividend, stock split or other similar transaction). The Company controls the timing and amount of any sales of shares to Fusion Capital.

Pursuant to the common stock purchase agreement with Fusion Capital, there are certain events of default which, if such an event were to occur, would eliminate Fusion Capital's obligation to purchase shares from the Company. Such events include, but are not limited to, (i) shares of the Company's common stock not being listed on any one of several stock exchanges outlined in the agreement, (ii) a "material adverse change" in the Company's business or operations, and (iii) the Company's stock price is less than $0.80 per share. In addition, Fusion Capital shall not have the right or the obligation to purchase any shares of the Company's common stock on any business day that the price of the common stock is below $2.88. The common stock purchase agreement may be terminated by us at any time at the Company's discretion without any cost to the Company. There are no negative covenants, restrictions on future fundings, penalties or liquidated damages in the agreement. The proceeds received by the Company under the common stock purchase agreement will be used to conduct operations and to continue to conduct our clinical development programs.

In consideration for entering into the purchase agreement, the Company issued 181,530 shares of its common stock to Fusion Capital as an initial commitment fee. The Company will also issue from time to time up to an additional 302,550 shares to Fusion Capital as a commitment fee pro rata as it receives the $30,000,000 of future funding.

During fiscal 2010, 1,718,538 shares of the Company's common stock (including 51,432 shares related to its commitment fee) were issued to Fusion Capital for net proceeds of $5,100,000. No additional shares have been issued to Fusion Capital subsequent to June 30, 2010.

On January 21, 2010, the Company completed the sale of 6,509,637 units (including 740,387 units sold to the underwriter pursuant to the exercise of its over-allotment option) at a public offering price of $2.08 per unit. Each unit consisted of (i) one share of the Company's common stock, (ii) a Class A warrant to purchase 0.75 of a share of the Company's common stock at an exercise price of $2.97 per share and (iii) a Class B warrant to purchase 0.50 of a share of the Company's common stock at an exercise price of $2.08 per share. The Company received approximately

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

$12,400,000 in net proceeds from the sale of the units (including the partially exercised option of the over-allotment), after underwriting discounts and commissions and other offering expenses. The total fair market value of the warrants at the date of issuance was approximately $4,375,000. This total fair market value was determined as a proportional amount of the gross proceeds received for the sale of the common stock, Class A and Class B warrants. The proportional amount for the warrants was determined through the use of the Black-Scholes option-pricing model and the common stock was determined using the market price of the Company's common stock on the sale date.

The 6,509,637 units consist of an aggregate of 6,509,637 shares of the Company's common stock, Class A warrants to purchase an aggregate of 4,882,228 shares of the Company's common stock and Class B warrants to purchase an aggregate of 3,254,818 shares of the Company's common stock. The Class A warrants are exercisable for a five year period commencing on July 21, 2010. The Class B warrants were exercisable at any time from January 21, 2010 through July 21, 2010 and expired unexercised.

In the Company's underwriting agreement with Oppenheimer & Co. Inc., the Company agreed not to issue or sell any securities under its existing financing agreement with Fusion Capital or otherwise enter into any similar equity financing program with any third party for a period of 180 days from the date of the prospectus supplement (January 15, 2010) without the prior written consent of Oppenheimer & Co. Inc.

Stock Purchase Warrants

In addition to the 4,882,228 Class A warrants related to the January 2010 equity offering described above, the Company has 740,131 warrants outstanding related to its October 2007 equity offering. As part of this transaction, the Company issued warrants to institutional investors and placement agent, exercisable from April 27, 2008 through April 17, 2013, to purchase up to 740,131 shares of its common stock at an exercise price of $12.72 per share. At June 30, 2010, all of these warrants remained outstanding.

In April 2009, warrants to purchase up to 300,000 shares of common stock pursuant to previous warrant agreements expired unexercised.

In October 2008, warrants to purchase up to 229,855 shares of common stock pursuant to previous warrant agreements expired unexercised.

Dividends

No cash dividends have been declared or paid by the Company since its Inception.

5. Income Taxes

A reconciliation of income taxes computed using the federal statutory rate to the taxes reported in our consolidated statements of operations is as follows *(in thousands)*:

	Year Ended June 30,		
	2008	2009	2010
Loss before income taxes	$ 20,130	$ 15,946	$ 17,728
Federal statutory rate	34%	34%	34%
Taxes computed at federal statutory rate	(6,845)	(5,420)	(6,028)
Loss attributable to foreign operations	630	437	116
Other	(75)	79	136
Valuation allowance and other	6,290	4,904	5,776
Reported income taxes	$ —	$ —	$ —

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Deferred tax assets consist of the following *(in thousands)*:

	June 30, 2009	June 30, 2010
Net operating loss carryforwards	$ 38,265	$ 43,130
Research and development credit carryforwards	1,600	1,600
Property and equipment	33	114
Employee benefits and stock compensation	131	934
Other, net	257	285
Total deferred tax assets	40,286	46,062
Valuation allowance	(40,286)	(46,062)
Net deferred tax assets	$ —	$ —

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

The Company has issued shares of common stock in prior years, which resulted in multiple ownership changes under Section 382 of the Internal Revenue Code. Consequently, the utilization of net operating loss and tax credit carryforwards is significantly limited. Such limitations may result in these carryforwards expiring before the Company utilizes them. At June 30, 2010 the Company estimates the maximum U.S. federal tax net operating loss and tax credit carryforwards, which could be utilized, were $124,237,000 and $1,600,000, respectively. If this net operating loss carryforward is not utilized, the following amounts will expire: $3,600,000 by 2012, $9,000,000 between 2013 and 2018, and $111,637,000 thereafter. The Company's ability to utilize its net operating loss and tax credit carryforwards may become subject to further annual limitation in the event of future change in ownership events.

The Company assesses uncertain tax positions in accordance with the provisions of Financial Accounting Standards Board Accounting Standards Codification (ASC) 740-10-5, "*Accounting for Uncertain Tax Positions.*" This pronouncement prescribes a recognition threshold and measurement methodology for recording within the financial statements uncertain tax positions taken, or expected to be taken, in the Company's income tax returns. As of June 30, 2010 the Company had no unrecognized tax benefits.

The Company files U.S. federal and state income tax returns. Due to the Company's net operating loss carryforwards, Federal income tax returns from incorporation are still subject to examination. In addition, open tax years related to state jurisdictions remain subject to examination.

The Company is also subject to the rules governing the limitation on net operating loss carryforwards. The Company has not conducted a detailed analysis of the application of these rules to the existing net operating losses but has estimated the impact of these rules in determining the Company's available net operating losses. The losses have been fully reserved along with all deferred tax assets as the Company does not believe that it is more likely than not that it will be able to utilize these attributes.

6. Licenses, Royalties and Collaborative Agreements and Commitments

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

products containing the licensed technology sold by the Company. Such royalties have been nominal since Inception.

Corning Incorporated — In December 2002, the Company entered into an agreement with Corning Incorporated (Corning) that granted Corning an exclusive sublicense relating to the Company's cell transfection technology. Under the terms of the agreement, the Company retains exclusive rights to the applications of the technologies involving cells for therapeutic applications. In addition, the agreement provides for future royalty payments on net sales of licensed products sold under the sublicense amounting to 5% of such sales up to $50,000,000. However, the Company does not expect to receive material revenue from this source for several years, if ever.

RealBio Technologies — In May 2009, the Company entered into an agreement with RealBio Technologies, Inc. (RealBio) that granted RealBio an exclusive license to utilize our technology outside of the Company's core area of focus -human regenerative medicine. In return for this license, the Company received a minority equity interest in RealBio, which was not material as of June 30, 2010.

Manufacture, Supply and Other Agreements — The Company has entered into various agreements relating to the manufacture of its products and the supply of certain components. If the manufacturing or supply agreements expire or are otherwise terminated, the Company may not be able to identify and obtain ancillary materials that are necessary to develop its product and such expiration and termination could have a material affect on the Company's business.

7. Commitments, Contingencies and Debt

During 2007 the Company entered into a new lease with Domino's Farms Office Park, LLC, for approximately 30,000 square feet. This lease has a noncancelable term of six years, which began on May 14, 2007, and has two five-year market value renewals that the Company, at its option, can exercise six months prior to May 14, 2018 and May 14, 2023. The Company's leased facility includes a Class 100,000 modular manufacturing clean room, laboratories and office space. The Company obtained seller-financing from the landlord in the amount of $834,000 for the purchase of leasehold improvements of which $304,000 remained outstanding as of June 30, 2010. This debt obligation to the landlord is payable over a four-year period at a 7.0% rate of interest. The lease also provides the Company the right of first refusal on certain additional space.

In June 2007, the Company entered into a loan with Key Equipment Finance Inc. in the amount of $751,000, payable over 36 months at a 7.24% fixed interest rate. The proceeds of the loan were used to purchase property and equipment. The Company made the final payment on this loan in June 2010.

As of June 30, 2010, future minimum payments related to our operating leases and long-term debt is as follows *(in thousands)*:

Year Ending June 30,	Operating Leases	Debt
2011	$ 1,126	$ 226
2012	1,153	79
2013	979	
2014	—	—
Total	$ 3,258	$ 305

Rent expense for the years ended June 30, 2008, 2009 and 2010, was $1,107,000, $1,153,000 and $1,175,000, respectively, and $10,445,000 for the period from Inception to June 30, 2010.

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In December 2009, the Company entered into amended agreements with certain employees that would result in a cash payment to these employees upon a change-in-control event. The Company does not believe a change-in-control event is probable at this time but if one were to take place, the maximum total cash payout would be approximately $725,000.

8. Employee Savings Plan

The Company has a 401(k) savings plan that allows participating employees to contribute a portion of their salary, subject to annual limits and minimum qualifications. The Board may, at its sole discretion, approve Company matching contributions to the plan. The Company made contributions of $217,000, $195,000 and $200,000 for the years ended June 30, 2008, 2009 and 2010, respectively and $1,457,000 for the period from Inception to June 30, 2010.

9. Quarterly Financial Data (Unaudited) ***(In thousands, except per share data):***

Year Ended June 30, 2010	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Fiscal Year
Revenues	$ 73	$ 16	$ —	$ —	$ 89
Loss from operations	(3,816)	(4,585)	(4,263)	(5,140)	(17,804)
Net loss	(3,801)	(4,575)	(4,238)	(5,115)	(17,729)
Net loss per common share	$ (0.18)	$ (0.21)	$ (0.16)	$ (0.18)	$ (0.72)

Year Ended June 30, 2009	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Fiscal Year
Revenues	$ 27	$ 28	$ 58	$ 69	$ 182
Loss from operations	(4,019)	(4,152)	(4,012)	(3,986)	(16,169)
Net loss	(3,913)	(4,103)	(3,972)	(3,958)	(15,946)
Net loss per common share	$ (0.24)	$ (0.24)	$ (0.24)	$ (0.20)	$ (0.89)

The summation of quarterly earnings per share computations may not equate to the year-end computation as the quarterly computations are performed on a discrete basis.

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

There are none to report.

Item 9A. ***Controls and Procedures***

Evaluation of Disclosure Controls and Procedures

The Company conducted an evaluation, under the supervision and with the participation of management, including the Company's Chief Executive Officer and Chief Financial Officer ("CEO and CFO") of the effectiveness of the design and operation of the Company's disclosure controls and procedures as defined in Rules 13a-15(e) and 15d-15(e) of the Securities and Exchange Act of 1934, as amended (the "Exchange Act"). Based on that evaluation, the CEO and CFO have concluded that the Company's disclosure controls and procedures were effective as of June 30, 2010, to ensure that information related to the Company required to be disclosed in reports the Company files or submits under the Exchange Act is (i) recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and (ii) accumulated and communicated to the Company's management, including the CEO and CFO, to allow timely decisions regarding required disclosure. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that the Company's disclosure controls and procedures will detect or uncover every situation involving the failure of persons within the Company to disclose material information otherwise required to be set forth in the Company's periodic reports; however, the Company's disclosure controls are designed to provide reasonable assurance that they will achieve their objective of timely alerting the CEO and CFO to the information relating to the Company required to be disclosed in the Company's periodic reports required to be filed with the SEC.

Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Rule 13a-15(f) under the Exchange Act). Our internal control over financial reporting is a process designed under the supervision of our CEO and CFO to provide reasonable assurance regarding the reliability of financial reporting and the preparation of our financial statements for external purposes in accordance with accounting principles generally accepted in the United States of America. Management evaluated the effectiveness of our internal control over financial reporting using the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in Internal Control — Integrated Framework. Management, under the supervision and with the participation of the CEO and CFO, assessed the effectiveness of our internal control over financial reporting as of June 30, 2010 and concluded that it was effective at a reasonable assurance level.

Our independent registered public accounting firm, PricewaterhouseCoopers LLP, has audited the effectiveness of our internal control over financial reporting as of June 30, 2010, and has expressed an unqualified opinion thereon in their report which appears under Item 8.

Changes in Internal Control over Financial Reporting

During our fourth quarter of fiscal 2010, there were no changes made in our internal control over financial reporting (as such term is defined in Rules 13a-15(f) and 15d-15(f) of the Exchange Act) that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

Item 9B. ***Other Information***

Not applicable.

PART III

Certain information required by Part III is omitted from this Report, and is incorporated by reference to our definitive Proxy Statement to be filed with the Securities and Exchange Commission pursuant to Regulation 14A in connection with our 2010 Annual Meeting of Shareholders scheduled for October 21, 2010.

Item 10. ***Directors, Executive Officers and Corporate Governance***

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

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

Item 11. ***Executive Compensation***

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

Item 12. ***Security Ownership of Certain Beneficial Owners and Management, and Related Shareholder Matters***

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

Item 13. ***Certain Relationships and Related Transactions, and Director Independence***

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

Item 14. ***Principal Accountant Fees and Services***

The information relating to principal accountant fees and services is incorporated by reference to the Proxy Statement under the caption "Ratification of Appointment of Independent Registered Public Accounting Firm."

PART IV

Item 15. ***Exhibits and Financial Statement Schedules***

(a) The following documents are filed as part of this Report:

1. Financial Statements (see Item 8).

2. All information is included in the Financial Statements or Notes thereto.

3. Exhibits:

See Exhibit Index.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

AASTROM BIOSCIENCES, INC.

/s/ TIMOTHY M. MAYLEBEN
Timothy M. Mayleben
President and Chief Executive Officer
(Principal Executive Officer)

Date: September 7, 2010

Pursuant to the requirements of the Securities Exchange Act of 1934, this Report has been signed on behalf of the registrant on September 7, 2010 by the following persons in the capacities indicated.

Signature	Title
/s/ GEORGE W. DUNBAR, JR. George W. Dunbar, Jr.	*Chairman of the Board of Directors*
/s/ TIMOTHY M. MAYLEBEN Timothy M. Mayleben	*President and Chief Executive Officer, Director*
/s/ ALAN L. RUBINO Alan L. Rubino	Director
/s/ NELSON M. SIMS Nelson M. Sims	Director
/s/ HAROLD C. URSCHEL, JR., M.D. Harold C. Urschel, Jr., M.D.	Director
/s/ ROBERT L. ZERBE, M.D. Robert L. Zerbe, M.D.	Director

EXHIBIT INDEX

Exhibit No.	Description
3.1	Restated Articles of Incorporation of Aastrom, filed as Exhibit 4.1 to Aastrom's Current Report on Form 8-K filed on December 17, 2009, incorporated herein by reference.
3.2	Certificate of Amendment to Restated Articles of Incorporation of Aastrom dated February 9, 2010, filed as Exhibit 3.2 to Aastrom's Post Effective Amendment No. 1 to Form S-1 filed on March 31, 2010, incorporated herein by reference.
3.3	Bylaws, as amended, attached as Exhibit 4.2 to Aastrom's Current Report on Form 8-K filed on October 23, 2008, incorporated herein by reference.
10.1 #	Form of Indemnification Agreement, attached as Exhibit 10.1 to Aastrom's Registration Statement on Form S-1 (No. 333-15415), filed on November 1, 1996, incorporated herein by reference.
10.2 #	Amended and Restated 1992 Incentive and Non-Qualified Stock Option Plan and forms of agreements thereunder, attached as Exhibit 10.5 to Aastrom's Registration Statement on Form S-1 (No. 333-15415), filed on November 1, 1996, incorporated herein by reference.
10.3 #	Form of Employment Agreement, attached as Exhibit 10.8 to Aastrom's Registration Statement on Form S-1 (No. 333-15415), filed on November 1, 1996, incorporated herein by reference.
10.4	License Agreement, dated March 13, 1992, between Aastrom and the University of Michigan and amendments thereto dated March 13, 1992, October 8, 1993 and June 21, 1995, attached as Exhibit 10.17 to Aastrom's Registration Statement on Form S-1 (No. 333-15415), filed on November 1, 1996, incorporated herein by reference.
10.5 #	Aastrom Biosciences 2001 Stock Option Plan, attached as Exhibit 10.72 to Aastrom's Annual Report on Form 10-K for the year ended June 30, 2002, incorporated herein by reference.
10.6	Master Supply Agreement with Sparton Corporation (formerly Astro Instrumentation, LLC), attached as Exhibit 10.76 to Aastrom's Annual Report on Form 10-K for the year ended June 30, 2003, incorporated herein by reference.
10.7	Supply Agreement between Aastrom and Moll Industries, Inc., dated December 16, 2003, attached as Exhibit 10.77 to Aastrom's Annual Report on Form 10-K for the year ended June 30, 2004, incorporated herein by reference.
10.8 #	2004 Equity Incentive Plan, attached as Exhibit 10.82 to Amendment No. 1 to Aastrom's Quarterly Report on Form 10-Q/A for the quarter ended September 30, 2004, incorporated herein by reference.
10.9 #	Form of Option and Restricted Stock Award Agreements for Grants under 2004 Equity Incentive Plan, attached as Exhibit 10.84 to Aastrom's Annual Report on Form 10-K for the year ended June 30, 2005, incorporated herein by reference.
10.10 #	Employee Compensation Guidelines, attached as Exhibit 10.85 to Aastrom's Annual Report on Form 10-K for the year ended June 20, 2005, incorporated herein by reference.
10.11	Amendment dated December 5, 2002 to License Agreement with the University of Michigan, attached as Exhibit 10.87 to Aastrom's Annual Report on Form 10-K for the year ended June 30, 2005, incorporated herein by reference.
10.12 #	Summary of Changes to Employee Compensation Guidelines, attached as Exhibit 10.94 to Aastrom's Quarterly Report on Form 10-Q for the quarter ended December 31, 2006, incorporated herein by reference.
10.13 #	2004 Equity Incentive Plan, as amended, attached as Exhibit 99.1 to Aastrom's Current Report on Form 8-K filed on November 8, 2006, incorporated herein by reference.
10.14 #	Forms of Grant Notice and Stock Option Agreement for Grants under 2004 Equity Incentive Plan, as amended, attached as Exhibit 99.2 to Aastrom's Current Report on Form 8-K filed on November 8, 2006, incorporated herein by reference.
10.15	Placement Agency Agreement, dated October 15, 2007, by and between the Company and BMO Capital Markets Corp., attached as Exhibit 10.1 to Aastrom's Current Report on Form 8-K filed on October 16, 2007, incorporated herein by reference.

Exhibit No.	Description
10.16	Escrow Agreement, dated as of October 15, 2007, among the Company, BMO Capital Markets Corp. and The Bank of New York, attached as Exhibit 10.2 to Aastrom's Current Report on Form 8-K filed on October 16, 2007, incorporated herein by reference.
10.17	Form of Purchase Agreement, attached as Exhibit 10.3 to Aastrom's Current Report on Form 8-K filed on October 16, 2007, incorporated herein by reference.
10.18	Form of Warrant, attached as Exhibit 10.2 to Aastrom's Current Report on Form 8-K filed on October 16, 2007, incorporated herein by reference.
10.19	Standard Lease between Aastrom and Domino's Farms Office Park, L.L.C. dated January 31, 2007., attached as Exhibit 10.96 to Amendment No. 1 to Aastrom's Annual Report on Form 10-K for the year ended June 30, 2007, incorporated herein by reference.
10.20 #	Nonemployee Director Compensation Guidelines, attached as Exhibit 10.98 to Aastrom's Quarterly Report on Form 10-Q for the quarter ended March 31, 2008, incorporated herein by reference.
10.21	Common Stock Purchase Agreement, dated June 12, 2009, between Aastrom Biosciences, Inc. and Fusion Capital Fund II, LLC, attached as Exhibit 10.1 to Aastrom's Current Report on Form 8-K filed on June 12, 2009, incorporated herein by reference.
10.22	Registration Rights Agreement, dated June 12, 2009, between Aastrom Biosciences, Inc. and Fusion Capital Fund II, LLC, attached as Exhibit 10.2 to Aastrom's Current Report on Form 8-K filed on June 12, 2009, incorporated herein by reference.
10.23 #	2009 Omnibus Incentive Plan, attached as Appendix II to Aastrom's Proxy Statement filed on October 9, 2009, incorporated herein by reference.
10.24	Class A Warrant Agreement, dated as of January 21, 2010, by and between the Registrant and Continental Stock Transfer & Trust Company (incorporated herein by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K filed with the SEC on January 27, 2010).
10.25	Class B Warrant Agreement, dated as of January 21, 2010, by and between the Registrant and Continental Stock Transfer & Trust Company (incorporated herein by reference to Exhibit 4.2 to the Company's Current Report on Form 8-K filed with the SEC on January 27, 2010).
10.26	Underwriting Agreement, dated as of January 15, 2010, and between the Registrant and Oppenheimer & Co. Inc. (incorporated herein by reference to Exhibit 1.1 to the Company's Current Report on Form 8-K filed with the SEC on January 15, 2010).
10.27 #	Employment Agreement with Timothy M. Mayleben dated October 23, 2009 attached as Exhibit 99.3 to Aastrom's Current Report on Form 8-K filed on October 27, 2009, incorporated herein by reference.
10.28 #	Employment Agreement with Scott C. Durbin dated June 7, 2010 attached as Exhibit 10.1 to Aastrom's Current Report on Form 8-K filed on June 8, 2010, incorporated herein by reference.
10.29	Form of indemnification agreement entered into between the Company and each of its directors, including Timothy M. Mayleben, a director and the Company's President and Chief Executive Officer, attached as Exhibit 10.1 to Aastrom's Current Report on Form 8-K filed on August 31, 2010, incorporated herein by reference.
10.30	Amended Code of Business Conduct and Ethics, attached as Exhibit 14.1 to Aastrom's Current Report on Form 8-K filed on August 31, 2010, incorporated herein by reference.
21	Subsidiaries of Registrant.
23.1	Consent of Independent Registered Public Accounting Firm.
31.1	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification of Chief Executive Officer and Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

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

GLOSSARY

Term	Definition
Adverse Event	Any adverse change in health or "side-effect" that occurs in a person participating in a clinical trial, from the time they consent to joining the trial until a pre-specified period of time after their treatment has been completed.
Autologous	Originating from the patient receiving treatment. (Aastrom uses only autologous cells)
BLA — Biologics License Application	An application containing product safety, efficacy and manufacturing information required by the FDA to market biologics products in the U.S.
CBER — Center for Biologics Evaluation and Research	Branch of the FDA that regulates biological products for disease prevention and treatment that are inherently more complex than chemically synthesized pharmaceuticals.
CLI — Critical Limb Ischemia	A vascular disease characterized by insufficient blood flow in the lower extremities that causes severe pain, tissue loss or both.
Controlled Clinical Trial	A clinical study that compares patients receiving a specific treatment to patients receiving an alternate treatment for the condition of interest. The alternate treatment may be another active treatment, standard of care for the condition and/or a placebo (inactive) treatment.
DCM — Dilated Cardiomyopathy	A chronic cardiac disease where expansion of the patient's heart reduces the pumping function to a point that the normal circulation of blood cannot be maintained.
Double-Blind Clinical Trial	Clinical trials in which neither the patient nor the physician know if the patient received the experimental treatment or a control/placebo.
Ex vivo	Outside the body
FDA — Food & Drug Administration	The U.S. FDA ensures that medicines, medical devices, and radiation-emitting consumer products are safe and effective. Authorized by Congress to enforce the Federal Food, Drug, and Cosmetic Act and several other public health laws, the agency monitors the manufacture, import, transport, storage, and sale of $1 trillion worth of goods annually.
GMP — Good Manufacturing Practice	GMP regulations require that manufacturers, processors, and packagers of drugs, medical devices, some food, and blood take proactive steps to ensure that their products are safe, pure, and effective. GMP regulations require a quality approach to manufacturing, enabling companies to minimize or eliminate instances of contamination, mix-ups, and errors.

Term	Definition
Hematopoietic Stem Cells	Stem cells that give rise to all the blood cell types including myeloid (monocytes and macrophages, neutrophils, basophils, eosinophils, erythrocytes, megakaryocytes/platelets, dendritic cells), and lymphoid lineages (T-cells, B-cells, NK-cells).
IMPACT-DCM	Aastrom's U.S. Phase 2 dilated cardiomyopathy clinical trial.
IND — Investigational New Drug	An application submitted to the FDA for a new drug or biologic that, if allowed, will be used in a clinical trial.
Ischemia	A shortage or inadequate flow of blood to a body part (commonly an organ or tissue) caused by a constriction or obstruction of the blood vessels supplying it.
LVEF — Left Ventricular Ejection Fraction	The fraction of blood pumped out of the left ventricle with each heart beat.
Open-label Clinical Trial	A trial in which both the treating physician and the patient know whether they are receiving the experimental treatment or control/placebo treatment.
Orphan Drug Designation	"Orphan drug" refers to a drug or biologic that is intended for use in the treatment of a rare disease or condition. Orphan drug designation from the U.S. Food and Drug Association (FDA) qualifies the sponsor to receive certain benefits from the Government in exchange for developing the drug for a rare disease or condition. The drug must then go through the FDA marketing approval process like any other drug or biologic which evaluates for safety and efficacy. Usually a sponsor receives a quicker review time and lower application fees for an orphan product.
Phase 1 Clinical Trial	A Phase 1 trial represents an initial study in a small group of patients to test for safety and other relevant factors.
Phase 2 Clinical Trial	A Phase 2 trial represents a study in a moderate number of patients to assess the safety and efficacy of a product.
Phase 2b Clinical Trial	A Phase 2b trial is a moderately-sized Phase 2 trial that is more specifically designed assess the efficacy of a product than a Phase 2a trial.
Phase 3 Clinical Trial	Phase 3 studies are initiated to establish safety and efficacy in an expanded patient population at multiple clinical trial sites and are generally larger than trials in earlier phases of development.
Progenitor Cells	A "parent" cell that gives rise to a distinct cell lineage by a series of cell divisions.
Prospective Clinical Trial	A clinical trial in which participants are identified and then followed throughout the study going forward in time.
Randomized Clinical Trial	A clinical trial in which the participants are assigned randomly to different treatment groups.

Term	Definition
Somatic Cell	Any of the cells responsible for forming the body of an organism such as internal organs, bones, skin, connective tissues and blood.
SPP — Single-Pass Perfusion	SPP is Aastrom's proprietary technology that controls gas and cell culture media exchange to enable the replication of early-stage stem and progenitor cells while preventing their differentiation into mature cells.
Stem Cell	Unspecialized (undifferentiated) cells that retain the ability to divide throughout a lifetime and give rise to more specialized (differentiated) cells which take the place of cells that die or are lost. In culture, these undifferentiated cells possess the ability to divide for indefinite periods in culture and may give rise to highly specialized cells.

EXHIBIT 21

SUBSIDIARIES OF REGISTRANT

Aastrom Biosciences, Ltd., Ireland

Aastrom Biosciences GmbH, Germany

Aastrom Biosciences SL, Spain

EXHIBIT 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form S-1 (No. 333-160044), Forms S-3 (Nos. 333-155739, 333-108989 and 333-107579) and Forms S-8 (Nos. 333-121006, 333-115505, 333-81340, 333-51556, 333-38886, 333-140624 and 333-25021) of Aastrom Biosciences, Inc. (a development stage company) of our report dated September 7, 2010 relating to the consolidated financial statements and the effectiveness of internal control over financial reporting, which appears in this Form 10-K.

/s/ PricewaterhouseCoopers LLP
PricewaterhouseCoopers LLP
Detroit, Michigan
September 7, 2010

EXHIBIT 31.1

CERTIFICATION

I, Timothy M. Mayleben, certify that:

1. I have reviewed this Annual Report on Form 10-K of Aastrom Biosciences, Inc. for the fiscal year ended June 30, 2010;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared; and

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles; and

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting.

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ Timothy M. Mayleben

Timothy M. Mayleben
President and Chief Executive Officer
(Principal Executive Officer)

Date: September 7, 2010

EXHIBIT 31.2

CERTIFICATION

I, Scott C. Durbin, certify that:

1. I have reviewed this Annual Report on Form 10-K of Aastrom Biosciences, Inc. for the fiscal year ended June 30, 2010;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared; and

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles; and

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting.

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ Scott C. Durbin

Scott C. Durbin
Chief Financial Officer
(Principal Financial and Accounting Officer)

Date: September 7, 2010

EXHIBIT 32.1

18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Aastrom Biosciences, Inc. (the "Company") on Form 10-K for the year ended June 30, 2010, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), each of the undersigned officers of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 ("Section 906"), the following:

(1) The Report fully complies with the requirements of section 13(a) and 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Timothy M. Mayleben
Timothy M. Mayleben
President and Chief Executive Officer
(Principal Executive Officer)

/s/ Scott C. Durbin
Scott C. Durbin
Chief Financial Officer
(Principal Financial and Accounting Officer)

Date: September 7, 2010

A signed original of this written statement required by Section 906 has been provided to Aastrom Biosciences, Inc. and will be retained by Aastrom Biosciences, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.