



**SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

**FORM 10-Q**

(Mark One)

**QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(D) OF THE SECURITIES EXCHANGE ACT OF 1934**

**FOR THE QUARTERLY PERIOD ENDED MARCH 31, 2007,**

**OR**

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

**FOR THE TRANSITION PERIOD FROM \_\_\_\_\_ TO \_\_\_\_\_**

**Commission file number 0-22025**

**AASTROM BIOSCIENCES, INC.**

(Exact name of registrant as specified in its charter)

Michigan

(State or other jurisdiction of incorporation or organization)

94-3096597

(I.R.S. employer identification no.)

24 Frank Lloyd Wright Dr.  
P.O. Box 376  
Ann Arbor, Michigan

(Address of principal executive offices)

48106

(Zip code)

(734) 930-5555

(Registrant's telephone number, including area code)

(Former name, former address and former fiscal year, if changed since last report)

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 —

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer (as defined in Rule 12b-2 of the Exchange Act).

Large accelerated filer —  Accelerated filer —  Non-accelerated filer —

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

Indicate the number of shares outstanding of each of the issuer's classes of common stock as of the latest practicable date.

COMMON STOCK, NO PAR VALUE  
(Class)

119,960,428  
Outstanding at May 7, 2007

AASTROM BIOSCIENCES, INC.  
Quarterly Report on Form 10-Q  
March 31, 2007

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**PART I — FINANCIAL INFORMATION***Item 1. Financial Statements*

AASTROM BIOSCIENCES, INC.  
(a clinical development stage company)  
CONSOLIDATED CONDENSED BALANCE SHEETS  
(Unaudited)  
(In thousands)

	June 30, 2006	March 31, 2007
<b>Assets</b>		
CURRENT ASSETS:		
Cash and cash equivalents	\$ 9,034	\$ 27,608
Short-term investments	33,963	4,999
Receivables, net	139	96
Inventories	1	8
Other current assets	528	478
Total current assets	<u>43,665</u>	<u>33,189</u>
PROPERTY AND EQUIPMENT, NET	<u>1,216</u>	<u>1,380</u>
Total assets	<u>\$ 44,881</u>	<u>\$ 34,569</u>
<b>Liabilities and Shareholders' Equity</b>		
CURRENT LIABILITIES:		
Accounts payable and accrued expenses	\$ 1,084	\$ 1,012
Accrued employee benefits	1,455	1,281
Total current liabilities	<u>2,539</u>	<u>2,293</u>
SHAREHOLDERS' EQUITY:		
Common stock, no par value; shares authorized — 250,000,000; shares issued and outstanding — 119,439,612 and 119,916,659, respectively	184,492	187,191
Deficit accumulated during the development stage	<u>(142,150)</u>	<u>(154,915)</u>
Total shareholders' equity	<u>42,342</u>	<u>32,276</u>
Total liabilities and shareholders' equity	<u>\$ 44,881</u>	<u>\$ 34,569</u>

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

AASTROM BIOSCIENCES, INC.  
(a clinical development stage company)  
CONSOLIDATED CONDENSED STATEMENTS OF OPERATIONS  
(Unaudited)  
(In thousands, except per share amounts)

	Three months ended		Nine months ended		March 24, 1989 (Inception) to March 31, 2007
	March 31,		March 31,		
	2006	2007	2006	2007	
<b>REVENUES:</b>					
Product sales and rentals	\$ 85	\$ 44	\$ 142	\$ 62	\$ 1,339
Research and development agreements	—	—	—	—	2,105
Grants	153	214	393	458	9,210
Total revenues	<u>238</u>	<u>258</u>	<u>535</u>	<u>520</u>	<u>12,654</u>
<b>COSTS AND EXPENSES:</b>					
Cost of product sales and rentals	2	14	11	17	582
Cost of product sales and rentals — provision for obsolete and excess inventory	—	—	—	—	2,239
Research and development	2,597	3,096	6,745	7,963	118,090
Selling, general and administrative	2,438	2,070	6,711	6,786	55,376
Total costs and expenses	<u>5,037</u>	<u>5,180</u>	<u>13,467</u>	<u>14,766</u>	<u>176,287</u>
LOSS FROM OPERATIONS	<u>(4,799)</u>	<u>(4,922)</u>	<u>(12,932)</u>	<u>(14,246)</u>	<u>(163,633)</u>
<b>OTHER INCOME (EXPENSE):</b>					
Other income	—	—	—	—	1,249
Interest income	250	439	753	1,481	8,704
Interest expense	—	—	—	—	(267)
Other income	<u>250</u>	<u>439</u>	<u>753</u>	<u>1,481</u>	<u>9,686</u>
NET LOSS	<u>\$ (4,549)</u>	<u>\$ (4,483)</u>	<u>\$ (12,179)</u>	<u>\$ (12,765)</u>	<u>\$ (153,947)</u>
<b>COMPUTATION OF NET LOSS PER SHARE APPLICABLE TO COMMON SHARES:</b>					
NET LOSS	<u>\$ (4,549)</u>	<u>\$ (4,483)</u>	<u>\$ (12,179)</u>	<u>\$ (12,765)</u>	
NET LOSS PER SHARE (Basic and Diluted)	<u>\$ (.04)</u>	<u>\$ (.04)</u>	<u>\$ (.12)</u>	<u>\$ (.11)</u>	
Weighted average number of shares outstanding (Basic and Diluted)	<u>103,033</u>	<u>119,640</u>	<u>102,730</u>	<u>119,443</u>	

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

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

CONSOLIDATED CONDENSED STATEMENTS OF CASH FLOWS  
(Unaudited)  
(In thousands)

	Nine months ended March 31,		March 24, 1989 (Inception) to March 31, 2007
	2006	2007	2007
<b>OPERATING ACTIVITIES:</b>			
Net loss	\$ (12,179)	\$ (12,765)	\$ (153,947)
Adjustments to reconcile net loss to net cash used for operating activities:			
Depreciation and amortization	233	314	4,378
Loss on property held for resale	—	—	110
Amortization of discounts and premiums on investments	(72)	(443)	(1,189)
Stock compensation expense	791	2,148	4,766
Inventory write downs and reserves	—	—	2,239
Stock issued pursuant to license agreement	—	—	3,300
Provision for losses on accounts receivable	—	—	204
Changes in assets and liabilities:			
Receivables	1	43	(345)
Inventories	113	(7)	(2,343)
Other current assets	(26)	50	(457)
Accounts payable and accrued expenses	105	(72)	1,012
Accrued employee benefits	723	(174)	1,281
Net cash used for operating activities	<u>(10,311)</u>	<u>(10,906)</u>	<u>(140,991)</u>
<b>INVESTING ACTIVITIES:</b>			
Organizational costs	—	—	(73)
Purchase of short-term investments	(11,500)	(29,593)	(161,555)
Maturities of short-term investments	20,078	59,000	157,745
Property and equipment purchases	(581)	(478)	(4,925)
Proceeds from sale of property held for resale	—	—	400
Net cash provided by (used for) investing activities	<u>7,997</u>	<u>28,929</u>	<u>(8,408)</u>
<b>FINANCING ACTIVITIES:</b>			
Net proceeds from issuance of preferred stock	—	—	51,647
Net proceeds from issuance of common stock	744	551	123,052
Repurchase of common stock	—	—	(49)
Payments received for stock purchase rights	—	—	3,500
Payments received under shareholder notes	—	—	31
Principal payments under capital lease obligations	—	—	(1,174)
Net cash provided by financing activities	<u>744</u>	<u>551</u>	<u>177,007</u>
<b>NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS</b>	<b>(1,570)</b>	<b>18,574</b>	<b>27,608</b>
<b>CASH AND CASH EQUIVALENTS AT BEGINNING OF PERIOD</b>	<b><u>14,408</u></b>	<b><u>9,034</u></b>	<b><u>—</u></b>
<b>CASH AND CASH EQUIVALENTS AT END OF PERIOD</b>	<b><u>\$ 12,838</u></b>	<b><u>\$ 27,608</u></b>	<b><u>\$ 27,608</u></b>

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

**AASTROM BIOSCIENCES, INC.**  
**(A clinical development stage company)**

**NOTES TO CONSOLIDATED CONDENSED FINANCIAL STATEMENTS**  
*(Unaudited)*

**1. Organization**

Astrom Biosciences, Inc. was incorporated in March 1989 (Inception), began employee-based operations in 1991, and is in the clinical 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. While management believes available cash, cash equivalents, short-term investments and interest income are adequate to finance currently planned activities beyond the end of fiscal year 2008 (ending June 30, 2008), 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 U.S., EU 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 negatively impact its business, financial condition and results of operations.

**2. Basis of Presentation**

The condensed consolidated financial statements included herein have been prepared by us without audit according to the rules and regulations of the Securities and Exchange Commission (SEC). Certain information and footnote disclosures normally included in financial statements prepared in accordance with generally accepted accounting principles in the United States of America have been omitted pursuant to such rules and regulations. The financial statements reflect, in the opinion of management, all adjustments (consisting only of normal, recurring adjustments) necessary to state fairly the financial position and results of operations as of and for the periods indicated. The results of operations for the three and nine months ended March 31, 2007, are not necessarily indicative of the results to be expected for the full year or for any other period.

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These financial statements should be read in conjunction with the audited financial statements and the notes thereto included in our 2006 Annual Report on Form 10-K for the year ended June 30, 2006, as filed with the Securities and Exchange Commission.

The consolidated financial statements include the accounts of Aastrom and its wholly-owned subsidiaries, Aastrom Biosciences GmbH, located in Berlin, Germany, Aastrom Biosciences, Ltd., located in Dublin, Ireland and Aastrom Biosciences, S.L., located in Barcelona, Spain (collectively, the “Company”). All significant inter-company transactions and accounts have been eliminated in consolidation. These subsidiaries have limited operations and are not significant to the consolidated financial statements.

### **3. Share-Based Compensation**

On July 1, 2005, the Company adopted the provisions of Financial Accounting Standards Board Statement No. 123R, “*Share-Based Payment*” (SFAS 123R) using the “modified prospective method”.

There were no significant changes to our various stock option plans from that disclosed in our Annual Report on Form 10-K for the fiscal year ended June 30, 2006, except that on November 2, 2006 the Company’s shareholders approved an amendment to the Company’s 2004 Equity Incentive Plan (“Plan”). The amendment includes the addition of 8 million shares to the Plan reserve and the addition of certain performance criteria to the Plan to permit the deductibility of performance-based compensation.

During the nine months ended March 31, 2007, the Company granted 39,400 shares of restricted common stock and 8,066,600 options to purchase common stock to employees and directors of the Company. Of the options granted during the period, 5,266,200 were granted with exercise prices equal to the fair value of the Company’s stock at the grant date and such options vest over four years (other than non-employee director options that vest over one year) and have lives of ten years. The weighted average grant-date fair value of options granted under the Company’s plans during the nine months ended March 31, 2006 and 2007 was \$1.82 and \$0.88, respectively.

The remaining options to purchase 2,800,400 shares of stock were granted to key employees of the Company. These 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 options is dependent on (i) the passage of time subsequent to the grant date and (ii) the Company meeting certain performance conditions, which relate to the Company’s progress in its clinical trial programs and other relevant factors, which were established by the Company’s Board of Directors. The Company is in the process of estimating the fair value of these options and expects to complete this estimation during the quarter ended June 30, 2007. Based on the Company’s preliminary assessment, the estimated fair value of these options may potentially range from \$2,600,000 (assuming a 5-year expected term) to \$3,200,000 (assuming a 10-year expected term). Stock-based compensation expense 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.



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Also, during the nine months ended March 31, 2007, the vesting of certain options held by the Company's former President and Chief Operating Officer (COO) were accelerated as of July 14, 2006, which resulted in compensation expense recognized for this modification of \$35,000. Also, upon the separation from employment of this officer, 90,000 nonvested stock options were forfeited.

The Company's stock option plans allow a stock option holder continued vesting of stock options as well as exercisability of vested options through the original option term, as long as that stock option holder provides continued service to the Company. The Company's former Chief Executive Officer (CEO) ceased his employment with the Company in July 2006; however, he continued to provide service to the Company through November 2, 2006, through his participation on the Company's Board of Directors. At November 2, 2006 the former CEO no longer provided service as a member of the Board of Directors however the Company allowed him to continue to vest in his nonvested stock options through November 2, 2007, and also allowed him the ability to exercise his vested stock options for approximately 15 months subsequent to his termination of services. During the nine months ended March 31, 2007, the Company recorded approximately \$257,000 of stock-based compensation expense related to the additional vesting of nonvested options and longer exercisability of vested options after the former CEO terminated his services to the Company.

The net compensation costs charged as operating expense for the stock-based award activity related to employees and directors (including the impact of the forfeitures and modifications described above in the nine months ended March 31, 2007) were approximately \$555,000 and \$2,148,000 for the nine months ended March 31, 2006 and March 31, 2007, respectively.

The fair value of each stock option grant that vests solely based on service 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.

	Nine Months Ended March 31,	
	2006	2007
Stock Option Plans:		
Expected dividend rate	0%	0%
Expected stock price volatility	72%	67%
Risk free interest rate	4.3%	4.9%
Estimated forfeiture rate	10%	10%
Expected life (years)	6.6	6.6

The weighted average grant-date fair value of restricted shares granted under the Company's plans during the nine months ended March 31, 2007 was \$1.17.

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A summary of option activity under the plan as of March 31, 2007, and changes during the nine months then ended are presented below:

Options	Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term	Aggregate Intrinsic Value
Outstanding at July 1, 2006	3,524,553	\$1.67		
Granted	8,066,600	\$1.36		
Exercised	(176,484)	\$ .75		
Forfeited or expired	(314,233)	\$1.27		
Outstanding at March 31, 2007	11,100,436	\$1.47	8.4	\$1,255,000
Exercisable at March 31, 2007	2,610,364	\$1.73	5.3	\$ 617,000

A summary of the status of the Company's nonvested restricted shares as of March 31, 2007 is presented below:

Nonvested Restricted Shares	Shares	Weighted Average Grant Date Fair Value
Nonvested at July 1, 2006	367,117	\$2.05
Granted	39,400	\$1.17
Vested	(120,704)	\$2.09
Forfeited	(62,550)	\$1.09
Nonvested at March 31, 2007	223,263	\$2.15

As of March 31, 2007 there was approximately \$2,628,000 of total unrecognized compensation cost related to nonvested stock-based compensation arrangements (options based solely on service and restricted shares) granted. That cost is expected to be recognized over a weighted-average period of 3.2 years.

#### **4. Shareholders' Equity**

During the nine months ended March 31, 2007, the Company issued 499,097 shares of common stock as part of the employee stock option plans and the Direct Stock Purchase Plan, for net cash proceeds of \$551,000 and issued 39,400 shares of restricted common stock to employees under the 2004 Equity Incentive Plan.

#### **5. Net Loss Per Common Share**

Net loss per common share is computed using the weighted-average number of common shares outstanding during the period. Common equivalent shares, consisting of options, warrants for the purchase of common stock and nonvested restricted shares of common stock, are not included in

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the per share calculation where the effect of their inclusion would be anti-dilutive. The aggregate number of common equivalent shares that have been excluded from the computations of net loss per common share for the three and nine months ended March 31, 2006 and 2007 is approximately 9,056,000 and 16,376,000, respectively.

### **6. Short-Term Investments**

Short-term investments consist of highly rated corporate debt securities with original maturities of over three months and less than one year. Short-term investments are classified as available-for-sale, and are presented at market value, with unrealized gains and losses on investments reflected as a component of shareholders' equity. There were no unrealized gains or losses as of June 30, 2006 or March 31, 2007. Interest earned on available-for-sale securities is included in interest income.

### **7. Lease Commitments**

In January 2007, the Company renegotiated its lease with Domino's Farms Office Park, LLC, increasing the lease space of its office, manufacturing and research facility from 30,230 square feet to 36,531 square feet. This new lease covers a period of six years, beginning on the date of occupancy of the new space. This lease also includes two five year options to extend the term to 2012 and 2017, respectively. The Company anticipates that occupancy will occur in May 2007. The aggregate minimum lease commitment under the new six year lease is approximately \$6,286,000.

### **8. Recent Accounting Pronouncements**

In September 2006, the Financial Accounting Standards Board (FASB) issued Statement of Financial Accounting Standards No. 157 (SFAS No. 157), "Fair Value Measurements" which clarifies the principle that fair value should be based on the assumptions market participants would use when pricing an asset or liability and establishes a fair value hierarchy that prioritizes the information used to develop those assumptions. Under the standard, fair value measurements would be separately disclosed by level within the fair value hierarchy. SFAS No. 157 is effective the first quarter of fiscal year 2008 with early adoption permitted. The Company does not believe SFAS No. 157 will have a material impact on its financial statements.

*Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations*

**Overview of Aastrom**

We are a regenerative medicine company focused on the clinical development of autologous cell products for the repair or regeneration of multiple human tissues, based on our proprietary Tissue Repair Cell (TRC) Technology. Our pre-clinical and clinical product development programs utilize patient-derived bone marrow stem and progenitor cell populations, and are being investigated for their ability to aid in the regeneration of tissues such as vascular, bone, cardiac and neural.

We have developed a patented proprietary manufacturing system to produce human cells for clinical use. This automated cell manufacturing system enables our “single-pass perfusion” cell culture process. Single-pass perfusion is our patented technology for growing large quantities of human cells. These cells include adult stem and progenitor cell populations, which are required for the formation of tissues such as bone, vascular, cardiac, neural, and the hematopoietic system.

Our platform Tissue Repair Cell (TRC) Technology is based on 1) our cell products which are a unique cell mixture containing large numbers of stem and progenitor cells, produced outside of the body from a small amount of bone marrow taken from the patient, and 2) the means to produce these products in an automated process. TRC-based products have been used in over 250 patients, and are currently in active clinical trials for bone regeneration (osteonecrosis of the femoral head, long bone fractures and spine fusions) and vascular regeneration (critical limb ischemia) applications. Our proprietary TRC-based cell products received an Orphan Drug Designation from the U.S. Food and Drug Administration (FDA) for use in the treatment of osteonecrosis of the femoral head and the treatment of dilated cardiomyopathy. In addition, we are developing programs for TRC-based therapies to address cardiac and neural regeneration indications.

Our primary business is to develop our TRC-based products for use in multiple therapeutic areas. Currently, we are refining our TRC-based products to better meet the needs and set the foundation to establish strong brands for each therapeutic area, as follows:

- Bone regeneration — Bone Repair Cells (BRCs)
- Vascular regeneration — Vascular Repair Cells (VRCs)
- Cardiac regeneration — Cardiac Repair Cells (CRCs)
- Neural regeneration — Neural Repair Cells (NRCs)

Since our inception, we have been in the development stage and engaged in research and product development, conducted principally on our own behalf. Our initial business plan was to pursue the bone marrow transplantation markets by commercializing our cell manufacturing system and supplies. Since that time we have phased out our marketing efforts promoting the cell manufacturing system as a commercial product in the U.S. Currently, we have product sales consisting of limited sales of manufacturing supplies to academic collaborators for research and limited revenue related to cell-based products.

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Our current focus is on utilizing our TRC Technology to produce autologous cell-based products for use in regenerative medicine. At such time as we satisfy applicable regulatory approval requirements, we expect the sales of our TRC-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 more significant TRC-based cell product sales commence. Until that time, we expect that our revenue sources will consist of only minor sales of our cell products, and dendritic cell and T-cell manufacturing supplies to our academic collaborators, grant revenue and research funding, and potential licensing fees or other financial support from potential future corporate collaborators.

To date, we have financed our operations primarily through public and private sales of our equity securities, and we expect to continue obtaining 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. 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 March 31, 2007, we have accumulated a net loss of approximately \$154 million. 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.

### **Clinical Development**

Currently, our active clinical development programs are focused on the utilization of our TRC Technology in the areas of vascular tissue and bone regeneration, though we anticipate beginning clinical trials in the cardiac and neural regeneration therapeutic areas.

The pre-clinical data for our TRC-based products have shown that the large numbers of the stem and progenitor cells obtained through application of our TRC Technology can develop into a variety of tissues including blood, bone, vascular and fat, as well as the potential to form tissues characteristic of certain internal organs. We have demonstrated in the laboratory that TRC-based products can differentiate into osteoblast (bone cell) and endothelial (blood vessel) cell lineages. Based on these pre-clinical observations, clinical trials have been initiated in the U.S. and European Union (EU) for bone regeneration in patients with severe long bone fractures, and for vascular tissue regeneration in patients with critical limb ischemia.

It should be noted that the preliminary results of our current clinical trials may not be indicative of results that will be obtained from subsequent patients in those trials or from future clinical trials. Further, our future clinical trials may not be successful, and we may not be able to obtain the required Biologic License Application (BLA) registration in the U.S. or required foreign regulatory approvals, Marketing Authorization (MA), for our TRC-based products in a timely fashion, or at all. See "Risk Factors."

## **Clinical Trials Summary**

### ***Bone Regeneration***

#### *Osteonecrosis:*

In May 2007, the FDA approved our Investigational New Drug (IND) application which allows us to proceed with a U.S. Phase III clinical trial to use our Bone Repair Cells (BRCs) based on our TRC Technology in the treatment of osteonecrosis of the femoral head. We are currently initiating clinical sites for this trial. This trial will seek to enroll 120 patients, randomized into two patient groups, at up to 20 clinical sites. The primary efficacy endpoint of this trial is to eliminate or delay the progression of osteonecrosis, which will be measured by a blinded third-party reviewer with MRI and CT imaging. Patients will be followed for a total of 24 months, post-treatment. We intend this to be a pivotal trial with the goal of demonstrating clinical safety and efficacy for the submission of a Biologics License Application (BLA). In addition, we may have to generate further patient data in this indication, such as data from the ongoing pivotal trial in Spain, to support a U.S. BLA submission. The initiation of this trial complements the receipt of an Orphan Drug Designation from the FDA in March 2006 to use our BRCs in the treatment of osteonecrosis of the femoral head.

In January 2007, we initiated patient enrollment and treatment in a pivotal clinical trial utilizing BRCs for the treatment of osteonecrosis (also known as avascular necrosis) of the femoral head. The trial protocol received written approval from the Spanish Drug Agency (AEMPS) and Centro Medico Teknon's Ethics Committee for our Investigational Medicinal Product Dossier (IMPD), and is being conducted at Teknon located in Barcelona, Spain. Patient recruitment is ongoing for up to 10 patients.

#### *Long Bone Fractures:*

A U.S. Phase I/II clinical trial for the treatment of severe long bone non-union fractures has completed enrollment of all 36 patients, and we are now conducting the twelve-month follow-up of these patients who were treated at the following centers: Lutheran General Hospital, Park Ridge, IL; the University of Michigan Health System, Ann Arbor, MI; William Beaumont Hospital, Royal Oak, MI; and Lutheran Medical Center, Brooklyn, NY. In February 2007, we reported additional interim results from all 36 patients enrolled in this trial. Of these 36 patients, 18 of 20 patients (90%) who had completed the twelve-month follow-up period, and 26 of 31 patients (84%) who have completed at least 6 months of follow-up showed multiple bone bridges at the fracture site, indicating radiographic evidence of healing, after blinded third-party image analysis. After being treated with our BRCs, callus formation (the first sign of healing and return of blood flow), was observed in 30 of these 31 patients (97%) by six months. No cell-related adverse events were reported. Data collection will be completed in July 2007 and we expect that final results from this trial will be available in late 2007.

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An initial bone regeneration study was conducted at centers in Spain under Ethical Committee approvals. Results from the Phase I clinical trial conducted at Hospital General de l'Hospitalet, Centro Médico Teknon and Hospital de Barcelona-SCIAS in Spain were disclosed in May 2005. All five patients, with a total of 6 treated fractures, have been reported as healed by a third party independent reviewer using radiographic images, or by clinical observation. No cell-related adverse events were observed. Following the feasibility trial, an IMPD was filed and permission from the Spanish Drug Agency (AEMPS) to commence a 10-patient Phase II non-union fracture trial in Spain was obtained. The Phase II study has completed enrollment and BRC treatment of all 10 patients, and we are continuing the required 24-month follow-up of these patients.

### *Spine Fusion:*

We are conducting a Phase I/II spine fusion clinical trial in the U.S., to accrue up to 25 patients. This study has been initiated at William Beaumont Hospital, Royal Oak, MI and there are plans to expand the study to additional sites.

### *Jaw Bone Reconstruction:*

We are completing a jaw bone (maxilla) regeneration clinical feasibility control trial in Barcelona, Spain, for edentulous patients with severe bone loss who needed a sinus lift procedure so that dental implants could be placed. This feasibility trial has enrolled the targeted 5 patients for the evaluation of bone regeneration resulting from BRCs compared with a standard bone grafting procedure. Four months after cell therapy, the treatments that included BRCs had reduced swelling, and significant height as well as width increase of the bone in the grafted area as determined in radiographic images. Histologic observations made on tissue sections adjacent to the grafted area showed changes consistent with the stimulation of bone turnover and with the induction of new connective tissue. We are continuing the required follow-up of these patients.

### ***Vascular Tissue Regeneration***

#### *Critical Limb Ischemia:*

Based on our laboratory observations that TRC-based products have the ability to form small blood vessels, and third party trials involving the use of bone marrow cells for peripheral vascular disease, we are conducting a trial to evaluate the safety and efficacy of Vascular Repair Cells (VRCs) based on TRC Technology in the treatment of diabetics with open foot wounds and critical limb ischemia.

In April 2007, we initiated patient enrollment in our U.S. Phase IIb prospective, controlled, randomized, double-blind, multi-center clinical trial to treat patients suffering from critical limb ischemia, the end stage of peripheral arterial disease. This study is expected to enroll 120 patients at up to 20 sites, randomized into two patient groups, to evaluate the safety and efficacy of VRCs in the treatment of critical limb ischemia. Patients will be followed for a period of twelve months post-

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treatment. In addition to assessing the safety of the VRCs, secondary objectives include assessing amputation rates, wound closure and blood flow in the affected limbs, patient quality of life, and the reduction of pain and analgesic use.

We entered into a clinical trial agreement with the Heart & Diabetes Center located in Bad Oeynhausen, Germany, to conduct a pilot trial to evaluate the safety and potential of VRCs to improve peripheral circulation in diabetic patients with open foot wounds and critical limb ischemia. Ethics Committee approval was received and a cell manufacturing license was obtained. Patient accrual is ongoing.

### ***Cardiac Regeneration***

In February 2007, our proprietary Cardiac Repair Cells (CRCs) based on our TRC Technology received an Orphan Drug Designation from the FDA for use in the treatment of dilated cardiomyopathy (DCM). DCM is a chronic cardiac disease that leads to enlargement of the heart and reduces pump function to a point that normal blood circulation cannot be maintained. Typically patients with DCM present with symptoms of congestive heart failure, including limitations in their physical activity and shortness of breath. DCM often represents the end stage of chronic ischemic heart disease in patients who have experienced multiple heart attacks. Patient prognosis depends on the stage of the disease but is characterized by a high mortality rate. Other than heart transplant, there are no effective long-term treatment options for end stage patients with this disease. The New England Journal of Medicine estimates that in the U.S. alone 120,000 people currently suffer from this disease; other sources report estimates of up to 150,000. We are in the process of preparing a protocol with the intention of initiating a clinical trial to treat patients suffering from DCM.

We are in the process of preparing a post market study protocol in the EU that will include treating patients suffering from dilated cardiomyopathy. We are also preparing for a U.S. clinical trial targeting this indication.

### ***Additional Activity***

In certain non-U.S. regions, autologous cells, such as our TRC-based products, may be marketed without satisfying all of the requirements necessary for a U.S. marketing authorization. This enables us to gain additional clinical experience and refine our clinical development strategies through compassionate use and limited commercial patient treatment in countries where it is allowed. We do not anticipate generating significant sales outside of the U.S. until we have sufficient evidence of clinical efficacy to justify the investment in manufacturing, sales and marketing infrastructure. However, we are currently generating limited, nominal sales of TRC-based products and expect to continue this level of activity. As a result of these compassionate use and limited commercial patient treatment activities it is possible that we, or third parties, may make case studies and other data generated outside of a clinical trial program available on websites, in publications or in presentations. Such data should be considered anecdotal; it is not intended to represent clinical trial results or suggest that any future clinical trials will demonstrate that TRC-based products are effective in any specific medical application.



## Critical Accounting Policies

There are several 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.

*Share-Based Compensation Expense* — Effective July 1, 2005, we adopted SFAS 123R using the modified prospective method and therefore have not restated prior periods' results. Under the fair value recognition provisions of SFAS 123R, we recognize compensation, net of an estimated forfeiture rate, and therefore only recognize compensation cost for those option grants and restricted stock awards and units expected to vest over the service period. Prior to our adoption of SFAS 123R, we accounted for stock-based payments under APB 25 and its interpretations.

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 its 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. 107 for "plain vanilla options." 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, but these estimates involve inherent uncertainties and the application of management judgment. As a result, if factors change and we use different assumptions, our 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. We estimate the forfeiture rate based on historical experience of our stock-based awards. If our actual forfeiture rate is different from our estimate, we would report the effect of any change in estimated forfeiture rate in the period of change.

*Performance Based Stock Options* — During the second quarter of fiscal year 2007, the Board of Directors granted performance based stock options (performance options) to certain key employees. These performance options have a 10 year life and exercise prices equal to the fair value of our 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 we believe that the vesting of these options is probable based on the progress of its clinical trial programs and other relevant factors.

There are three tranches of these options that vest upon the satisfaction of performance conditions, all of which have vesting based on progress toward clinical trial or product successes within a certain timeframe.

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The first tranche (933,467 options) would vest if its performance conditions are met by March 2008; the second tranche (933,467 options) would vest if its performance conditions are met by June 2011; and, the third tranche (933,466 options) would vest if its performance conditions are met by June 2012. None of these tranches can vest in less than one year from the date of the performance based option grant. 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.

During the quarter ended March 31, 2007, 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. However, it is possible that for the first tranche of options, progress toward the necessary performance conditions in the next three to six months may cause management to determine that his tranche of options is probable of vesting. If management had determined that, as of March 31, 2007, the first tranche of 933,467 options was probable of vesting, compensation expense in a range of approximately \$357,000 to \$437,000 would have been recorded in the quarter (which would represent the accumulated compensation expense from the date of grant in November 2006 through March 31, 2007).

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 performance options. Inherent in this model are assumptions related to expected stock-price volatility, option life, risk-free interest rate and dividend yield. As a result, if factors change and we use different assumptions, our stock-based compensation expense could be materially different in the future.

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, consisting of product sales and grant funding, for the quarter and nine months ended March 31, 2007 were \$258,000 and \$520,000, respectively, compared to \$238,000 and \$535,000 for the same periods in fiscal year 2006.

Product sales for the quarter and nine months ended March 31, 2007, consisting of limited sales of therapy kits for research by others and limited revenue related to cell-based products, decreased to \$44,000 and \$62,000, respectively, compared to product sales of \$85,000 and \$142,000 for the same periods in fiscal year 2006. Grant revenues increased to \$214,000 and \$458,000 for the quarter and nine months ended March 31, 2007 compared to \$153,000 and \$393,000 for the same periods in fiscal year 2006. Grant revenues may vary in any period based on timing of grant awards, grant-funded activities, level of grant funding and number of grant awards received. Grant revenues are recorded on a cost-reimbursement basis and accounted for 88% of total revenues for the nine months ended March 31, 2007 and 73% of total revenues for the same period in fiscal year 2006. We continue to pursue grant-funded programs that are aligned with our research and development efforts.

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Total costs and expenses increased to \$5,180,000 for the quarter ended March 31, 2007, compared to \$5,037,000 for the quarter ended March 31, 2006.

Research and development expenses increased to \$3,096,000 for the quarter ended March 31, 2007 from \$2,597,000 for the quarter ended March 31, 2006. This increase reflects continued expansion of our research and development activities to support regulatory submissions, on-going and planned tissue regeneration clinical trials in the U.S. and EU and the development of facilities for product manufacturing. Research and development expenses also included a non-cash charge relating to stock-based compensation expense of \$202,000 for the quarter ended March 31, 2007 compared to \$90,000 for the quarter ended March 31, 2006.

Selling, general and administrative costs decreased to \$2,070,000 for the quarter ended March 31, 2007 from \$2,438,000 for the quarter ended March 31, 2006. The decrease is due to lower salaries and benefits as a result of management and employee changes and decreases in relocation and recruitment expenses. Selling, general and administrative costs also include a non-cash charge relating to stock-based compensation expense of \$501,000 compared to \$200,000 for the quarter ended March 31, 2006.

Total costs and expenses increased to \$14,766,000 for the nine months ended March 31, 2007, compared to \$13,467,000 for the nine months ended March 31, 2006.

Research and development expenses increased for the nine months ended March 31, 2007 to \$7,963,000 from \$6,745,000 for the nine months ended March 31, 2006, reflecting continued expansion of our research and development programs to support regulatory and clinical trial activities in the U.S. and EU, manufacturing processes and the development of facilities for product manufacturing. Research and development expenses also included a non-cash charge relating to stock-based compensation expense of \$492,000 for the nine months ended March 31, 2007 compared to \$288,000 for the nine months ended March 31, 2006.

Selling, general and administrative costs increased for the nine months ended March 31, 2007 to \$6,786,000 from \$6,711,000 for the nine months ended March 31, 2006. This increase is due to a non-cash charge relating to stock-based compensation expense of \$1,656,000 compared to \$503,000 for the quarter ended March 31, 2006. The increase in the non-cash charge includes a one-time charge of \$257,000 that relates to an amendment of our former CEO's stock options upon the termination of his service as a director. This increase also includes expenses relating to the former CEO's revised employment agreement and severance expenses relating to the former President and COO's employment agreement. These increases were offset by lower salaries and benefits as a result of management and employee changes and decreases in recruitment expenses and legal fees.

Interest income was \$439,000 and \$1,481,000 for the quarter and nine months ended March 31, 2007, respectively, compared to \$250,000 and \$753,000 for the same periods in fiscal year 2006. The fluctuations in interest income are due primarily to corresponding changes in the level of cash, cash equivalents and short-term investments during the periods and improved yields from our investments.

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Our net loss was \$4,483,000 or \$.04 per common share for the quarter ended March 31, 2007 compared to \$4,549,000, or \$.04 per common share for the quarter ended March 31, 2006. For the nine months ended March 31, 2007, our net loss increased to \$12,765,000, or \$.11 per common share compared to a net loss of \$12,179,000, or \$.12 per common share for the nine months ended March 31, 2006. The change in net loss per share for the nine month periods is primarily the result of increased costs and expenses offset on a per share basis by an increase in the weighted average number of common shares outstanding.

Our major ongoing research and development programs are focused on the development of TRC-based products, bone marrow-derived adult stem and progenitor cells, for use in orthopedic indications (osteonecrosis of the femoral head, bone fractures, and spine fusion) and for use in vascular system regeneration (critical limb ischemia), as well as cardiac and neural regeneration. Clinical trials using TRC-based products have been initiated to evaluate: (i) the treatment of osteonecrosis of the femoral head (in the U.S. and EU) (ii) bone formation in patients with long bone fractures (in the U.S. and EU); and (iii) bone formation in spine fusion (in the U.S.). Clinical trials are open for patient enrollment in the U.S. and EU for the treatment of limb ischemia resulting from peripheral vascular. All of these potential product applications use TRC Technology, our proprietary cells and platform manufacturing technologies. We are also completing other research and development activities using our TRC-based products that are intended to improve the functionality for certain clinical indications, to improve shelf life, and to decrease the cost of manufacturing our TRC-based products. Research and development expenses outside of the TRC-based product development consist primarily of immunotherapy programs, engineering and cell manufacturing.

The following table summarizes our research and development expenses for the quarter and nine months ended March 31, 2006 and March 31, 2007:

R&D Project	Quarter Ended March 31,		Nine Months Ended March 31,	
	2006	2007	2006	2007
TRC-based Products	\$ 2,210,000	\$ 2,796,000	\$ 5,817,000	\$ 7,175,000
Other	387,000	300,000	928,000	788,000
Total	<u>\$ 2,597,000</u>	<u>\$ 3,096,000</u>	<u>\$ 6,745,000</u>	<u>\$ 7,963,000</u>

Because of the uncertainties of clinical trials and the evolving regulatory requirements applicable to TRC-based products, estimating the completion dates or cost to complete our major research and development program 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

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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” of this report. The potentially 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.

### **Liquidity and Capital Resources**

We have financed our operations since inception primarily through public and private sales of our equity securities, which, from inception through March 31, 2007, have totaled approximately \$178 million 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 \$32,607,000 at March 31, 2007, a decrease of \$10,390,000 from June 30, 2006. During the nine months ended March 31, 2007, the primary source of cash, cash equivalents and short-term investments was from equity transactions from the employee stock option plans and the Direct Stock Purchase Plan, with net proceeds of \$551,000. The primary uses of cash, cash equivalents and short-term investments during the nine months ended March 31, 2007 included \$10,906,000 to finance our operations and working capital requirements, and \$478,000 in capital equipment additions for cell manufacturing and laboratory equipment.

We expect that our total capital expenditures for the fiscal year ended June 30, 2007 to be approximately \$1,292,000 primarily for the acquisition of cell manufacturing and laboratory equipment. We expect our monthly cash utilization to average approximately \$1.5 million for remainder of fiscal year 2007.

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 and the cost of product commercialization. We do not expect to generate positive cash flow from operations for at least the next several years due to 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 both technical and business risks, including our continued ability to obtain future funding, satisfactory product development, obtaining regulatory approval and market acceptance for our products among others.

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We expect that our available cash, cash equivalents, short-term investments and expected interest income will be sufficient to finance currently planned activities beyond the end of fiscal year 2008 (ending June 30, 2008). 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", included herein. In order to grow and expand our business, and to introduce our product candidates into the marketplace, we will need to raise additional funds. We will also need additional funds or a collaborative partner, or both, to finance the research and development activities of our cell product candidates for additional indications. 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 debt or equity securities. There can be no assurance that such collaborative arrangements, or any public or private funding, will be available on acceptable terms, if at all. Several factors will affect our ability to raise additional funding, including, but not limited to, market volatility of our common stock, continued market listing of our common stock and economic conditions affecting the public markets. If our common stock is delisted from The Nasdaq Stock Market, the liquidity of our common stock could be impaired, and prices for the shares of our common stock could be lower than might otherwise prevail.

If adequate funds are not available, we may be required to delay, reduce the scope of, or eliminate one or more of our research and development programs, which may have a material adverse affect on our business. See "Risk Factors" and "Notes to Consolidated Financial Statements" in our 2006 Annual Report on Form 10-K and "Notes to Consolidated Financial Statements" and "Risk Factors" included herein.

### **Risk Factors**

*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 March 31, 2007, we have incurred a cumulative net loss totaling approximately \$154 million. These losses have resulted principally from costs incurred in the research and development of our cell culture technologies and our cell manufacturing system, general and administrative expenses, and the prosecution of patent applications. We expect to incur significant operating losses at least until, and probably after, product sales increase, primarily owing to our research and development programs, including pre-clinical 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, and raising sufficient cash to fund our operating activities. In addition, we may not be able to achieve or sustain profitability.

*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 U.S., 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, including certain countries in the EU. If we cannot demonstrate the safety and efficacy of our cell product candidates, or of the cells produced in our manufacturing system, we may not be able to obtain required regulatory approvals. If we cannot demonstrate the safety and efficacy of our technologies and product candidates, or if one or more patients die or suffer severe complications, the FDA or other regulatory authorities could delay or withhold regulatory approval of our product candidates.

Finally, even if we obtain regulatory approval of a product, that approval may be subject to limitations on the indicated uses for which it may be marketed. Even after granting regulatory approval, the FDA 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 mixtures (such as our TRC-based products) is, under current regulations, regulated as a biologic product, which requires a Biological License Application (BLA).

EU Directives (laws) have become effective, and have influenced the requirements for manufacturing cell products and the conduct of clinical trials. Recent changes and annexes to the European Union Medicinal Products Prime Directive shifted patient-derived cells to the medicinal products category, which will require Marketing Authorizations in order to market and sell these products. These new laws have delayed some of our current planned clinical trials with TRC-based products in the EU, and will require clinical trials with data submission and review by one or more European regulatory bodies. There is uncertainty about which clinical trial activities and data are required, and because of the recent nature of these new directives, laws and regulations, there is no established precedent to understand the timeline or other requirements for Marketing Authorization.

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

Commercialization in the U.S. and the EU of our cell product candidates will require completion of substantial clinical trials, and obtaining 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 result. 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 the issue delaying commercialization and we may not be able to raise capital to finance our continued operation during the period required for resolution of that issue.

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

To be able to market therapeutic cell products in the U.S. and across the EU, 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 and current clinical trials. If we experience future delays in patient accrual, we could experience increased costs and delays associated with clinical trials, which would impair our product development programs and our ability to market our products. Furthermore, the FDA monitors the progress of clinical trials and it may suspend or terminate clinical trials at any time due to patient safety or other considerations.

Our research programs are currently directed at improving TRC-based product functionality for certain clinical indications, improving product shelf life, and decreasing the cost of manufacturing our TRC-based 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.



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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 are sufficient for a marketable or regulatory approvable product.

*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 TRC-based 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 market place at a level that would allow us to operate profitably. Our TRC-based products will face competition from existing, and/or potential other new treatments which could limit revenue potential. It may be necessary to increase the yield and/or cell type purity for certain of our cell manufacturing processes to gain commercial acceptance. 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 U.S. 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.

*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 TRC 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 the TRC-based product manufacturing processes. Any restrictions on these materials would impose a potential competitive disadvantage for our products or prevent our ability to manufacture TRC-based cell products. Regulatory authorities in the EU are reviewing the safety issues related to the use of animal-derived materials, which we currently use in our production process. 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. We do not know what actions, if any, the authorities may take as to animal derived materials specific to medicinal products distributed in the EU. 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. 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 TRC-based 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.

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

We will require substantial capital resources in order to conduct our operations and develop our products and cell manufacturing facilities. We expect that our available cash, cash equivalents, short-term investments and interest income will be sufficient to finance currently planned activities beyond the end of fiscal year 2008 (ending June 30, 2008). However, in order to grow and expand our business, and to introduce our new product candidates into the marketplace, we will need to raise additional funds. We will also need additional funds or a collaborative partner, or both, to finance the research and development activities of our cell product candidates for additional indications. Accordingly, we are continuing to pursue additional sources of financing.

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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

Because of our long-term funding requirements, we intend 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.

*The issuance of additional common stock for funding has the potential for substantial dilution.*

As noted above, we will need additional equity funding to provide us with the capital to reach our objectives. We may enter into financing transactions at prices which are at a substantial discount to market. Such an equity issuance would cause a substantially larger number of shares to be outstanding and would dilute the ownership interest of existing stockholders.

*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 \$1.11 and \$1.92 during the twelve month period ended March 31, 2007. 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 tissue engineering companies
- reports by securities analysts
- status of the investment markets
- concerns related to management transitions

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

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

We are required to meet certain qualitative and financial tests (including a minimum bid price for our common stock of \$1.00) to maintain the listing of our common stock on the Nasdaq Capital Market. In May 2003 and in July 2004, we received notification from Nasdaq of potential delisting as a result of our stock trading below \$1.00 for more than thirty consecutive business days. While in each case our stock price recovered within the permitted grace periods and Nasdaq notified us that we were again in full compliance, we cannot provide any assurance that our stock price would again recover within the specified times if future closing bid prices below \$1.00 triggered another potential delisting. The qualitative tests we must meet address various corporate governance matters, including Audit Committee and Board composition. Over the last two years, we have experienced director resignations and are devoting increased resources to Board member recruitment and retention. If we do not maintain compliance with the Nasdaq requirements within specified periods and subject to permitted extensions, our common stock may be recommended for delisting (subject to any appeal we would file). If our common stock were delisted, it could be more difficult to buy or sell our common stock and to obtain accurate quotations, and the price of our stock could suffer a material decline. Delisting would also impair our ability to raise capital.

*Failure of third parties to manufacture component parts or provide limited source supplies, or imposition of additional regulation, would impair our new product development and our sales activities.*

We rely solely on third parties such as Astro, Moll and Cambrex to manufacture or supply certain of our devices/manufacturing equipment, as well as component parts and other materials used in the cell product manufacturing process. We would not be able to obtain alternate sources of supply for many of these items on a short-term basis. If any of our key manufacturers or suppliers fails to perform their respective obligations or if our supply of components or other materials is limited or interrupted, we would not be able to conduct clinical trials or market our product candidates on a timely and cost-competitive basis, if at all.

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

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

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We rely on a third party manufacturer, Fraunhofer Institute for Interfacial Engineering and Biotechnology in Stuttgart, Germany, to supply our TRC-based cell products for certain EU clinical trials. Reliance on third party manufacturers entails risks including regulatory compliance and quality assurance and the possible breach of the manufacturing agreement by the third party. We are subject to similar regulatory and compliance risks at our site in Ann Arbor, Michigan. Both sites could be subject to ongoing, periodic, unannounced inspection by regulatory agencies to ensure strict compliance with cGMP regulations and other governmental regulations and corresponding foreign standards. Our present and future manufacturers might not be able to comply with these regulatory requirements. We do not have redundant cell manufacturing sites. In the event our cell manufacturing facilities are damaged or destroyed or are subject to regulatory restrictions, our clinical trial programs and other business prospects would be adversely affected.

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

The 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.

*We have experienced significant management turnover, and if we cannot attract and retain key personnel, then our business will suffer.*

Our success depends in large part upon our ability to attract and retain highly qualified scientific and management personnel. We face competition for such personnel from other companies, research and academic institutions and other entities. Within the last year we have experienced the departure of our COO and the planned transition of our CEO. Further, in an effort to conserve financial resources, we have implemented reductions in our work force on two previous occasions. 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.

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*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. 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, 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.

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*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 TRC-based 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.

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

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

*We are required to evaluate our internal control over financial reporting under Section 404 of the Sarbanes-Oxley Act of 2002 and any adverse results from such evaluation could have a negative market reaction.*

Pursuant to Section 404 of the Sarbanes-Oxley Act of 2002 (Section 404), we are required to furnish a report by our management on our internal control over financial reporting. That report must contain, among other matters, an assessment of the design and operating effectiveness of our internal controls over financial reporting as of the end of the fiscal year. This assessment must include disclosure of any material weaknesses in our internal control over financial reporting identified by management. That report must also contain a statement that our independent registered public accounting firm has issued an attestation report on management's assessment of such internal controls and independent registered public accounting firm's assessment of the design and operating effectiveness of our system of internal accounting controls over financial reporting. If in the future we are unable to assert that our internal control over financial reporting is effective as of the end of the then current fiscal year (or, if our independent registered public accounting firm is unable to attest that our management's report is fairly stated or they are unable to express an unqualified opinion on the design and operating effectiveness of our internal controls), we could lose investor confidence in the accuracy and completeness of our financial reports, which would have a negative effect on our stock price and our ability to raise capital.

### *Forward-looking statements*

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

- potential strategic collaborations with others
- future capital needs
- adequacy of existing capital to support operations for a specified time
- product development and marketing plan

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- clinical trial plans and anticipated results
- anticipation of future losses
- replacement of manufacturing sources
- commercialization plans
- revenue expectations and operating results

These statements are subject to risks and uncertainties, including those set forth in this “Risk Factors” section, and actual results could differ materially from those expressed or implied in these statements. All forward-looking statements included in this quarterly report are made as of the date hereof. We assume no obligation to update any such forward-looking statement or to update any reason why actual results might differ.



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### *Item 3. Quantitative and Qualitative Disclosures About Market Risk*

As of March 31, 2007, our cash and cash equivalents included money market securities and short-term investments included short-term corporate debt securities with original maturities of less than twelve months. Due to the short duration of our investment portfolio, an immediate 10% change in interest rates would not have a material effect on the fair market value of our portfolio, 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 on our securities portfolio.

Our sales to customers in foreign countries are denominated in 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-collectibility and establishment of appropriate allowances in connection with our internal controls and policies. We do not enter into hedging transactions and do not purchase derivative instruments.

### *Item 4. Controls and Procedures*

#### Disclosure Controls and Procedures

As required by Rule 13a-15(b) under the Securities Exchange Act of 1934, as amended, we conducted an evaluation, under the supervision and with the participation of our management, including the Company's Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures as of the end of the period covered by this report. Based upon that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that our current disclosure controls and procedures were effective in ensuring that all information required to be disclosed in reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission rules and forms.

#### Changes in Internal Control over Financial Reporting

During our third quarter of fiscal 2007, there were no changes made in our internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

**PART II — OTHER INFORMATION**

*Item 1. Legal Proceedings*

From time to time we receive threats or may be subject to litigation matters incidental to our business. However, we are not currently a party to any material pending legal proceedings.

*Item 1A. Risk Factors*

We have provided updated risk factors in the section labeled “Risk Factors” in Part I, Item 2 to allow readers to understand the material risks and uncertainties affecting our businesses and to qualify forward-looking statements we make. These updates do not include any material changes in the type or magnitude of the risks we discussed in our most recent Annual Report on Form 10-K.

*Item 2. Unregistered Sales of Equity Securities and Use of Proceeds*

None.

*Item 3. Defaults Upon Senior Securities*

None.

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

None.

*Item 5. Other Information*

None.

*Item 6. Exhibits*

See Exhibit Index.

**SIGNATURES**

Pursuant to the requirements 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.

Date: May 10, 2007

/s/ George W. Dunbar, Jr.

George W. Dunbar, Jr.  
President and Chief Executive Officer  
(Principal Executive Officer)

Date: May 10, 2007

/s/ Gerald D. Brennan, Jr.

Gerald D. Brennan, Jr.  
Vice President Administrative & Financial Operations,  
Chief Financial Officer  
(Principal Financial and Accounting Officer)

**EXHIBIT INDEX**

<u>Exhibit Number</u>	<u>Description</u>
3.1*	Restated Articles of Incorporation of the Company, as amended
3.2**	Bylaws, as amended
31	Rules 13a-14(a) and 14(d)-14a Certifications
32	Section 1350 Certifications

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\* Incorporated by reference to the Company's Quarterly Report on Form 10-Q for the fiscal quarter ended September 30, 2006.

\*\* Incorporated by reference to the Company's Annual Report on Form 10-K for the fiscal year ended June 30, 2005

**CERTIFICATION**

I, George W. Dunbar, Jr., certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Aastrom Biosciences, Inc.;
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.

Date: May 10, 2007

/s/ George W. Dunbar, Jr.

George W. Dunbar, Jr.

President and Chief Executive Officer

(Principal Executive Officer)

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## CERTIFICATION

I, Gerald D. Brennan, Jr., certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Aastrom Biosciences, Inc.;
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.

Date: May 10, 2007

/s/ Gerald D. Brennan, Jr.

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Gerald D. Brennan, Jr.  
Vice President Administrative & Financial Operations,  
Chief Financial Officer  
(Principal Financial and Accounting Officer)

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

In connection with the Quarterly Report of Aastrom Biosciences, Inc. (the "Company") on Form 10-Q for the quarter ended March 31, 2007, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, George W. Dunbar, Jr., President and Chief Executive Officer 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"), that:

- (1) The Report fully complies with the requirements of section 13(a) of the Securities Exchange Act of 1934 (15 U.S.C. 78m); and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

May 10, 2007

/s/ George W. Dunbar, Jr.

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George W. Dunbar, Jr.  
President and Chief Executive Officer  
(Principal Executive Officer)

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

In connection with the Quarterly Report of Aastrom Biosciences, Inc. (the "Company") on Form 10-Q for the quarter ended March 31, 2007, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Gerald D. Brennan, Jr., Vice President Administrative and Financial Operations and Chief Financial Officer 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"), that:

- (1) The Report fully complies with the requirements of section 13(a) of the Securities Exchange Act of 1934 (15 U.S.C. 78m); and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

May 10, 2007

/s/ Gerald D. Brennan, Jr.

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Gerald D. Brennan, Jr.

Vice President Administrative & Financial Operations,

Chief Financial Officer

(Principal Financial and Accounting Officer)