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**FORM 10-Q**  
**SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

(Mark One)

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

For the quarterly period ended September 30, 2008

**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 **1-12830**

**BioTime, Inc.**

(Exact name of registrant as specified in its charter)

**California**

(State or other jurisdiction of incorporation or organization)

**94-3127919**

(IRS Employer Identification No.)

**1301 Harbor Bay Parkway, Suite 100**

**Alameda, California 94502**

(Address of principal executive offices)

**(510) 521-3390**

(Registrant's telephone number, including area code)

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. S Yes   £ No

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

Large accelerated filer

Accelerated filer

Non-accelerated filer  (Do not check if a smaller reporting company)

Smaller reporting company

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

APPLICABLE ONLY TO CORPORATE ISSUERS:

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date. 23,794,374 common shares, no par value, as of September 30, 2008.

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**PART 1--FINANCIAL INFORMATION**

Statements made in this Report that are not historical facts may constitute forward-looking statements that are subject to risks and uncertainties that could cause actual results to differ materially from those discussed. Such risks and uncertainties include but are not limited to those discussed in this report under Item 1 of the Notes to Financial Statements, and in BioTime's Annual Report on Form 10-K filed with the Securities and Exchange Commission. Words such as "expects," "may," "will," "anticipates," "intends," "plans," "believes," "seeks," "estimates," and similar expressions identify forward-looking statements.

**Item 1. Financial Statements**

**BIOTIME, INC.**  
**CONDENSED CONSOLIDATED BALANCE SHEETS**

	September 30, 2008 (unaudited)	December 31, 2007
<b>ASSETS</b>		
<b>CURRENT ASSETS:</b>		
Cash and cash equivalents	\$52,082	\$9,501
Accounts receivable	4,846	3,502
Prepaid expenses and other current assets	37,114	128,643
<b>Total current assets</b>	<b>94,042</b>	<b>141,646</b>
Equipment, net of accumulated depreciation of \$594,506 and \$585,765, respectively	110,817	12,480
Advance license fee and others	820,976	20,976
<b>TOTAL ASSETS</b>	<b>\$ 1,025,835</b>	<b>\$175,102</b>
<b>LIABILITIES AND SHAREHOLDERS' DEFICIT</b>		
<b>CURRENT LIABILITIES:</b>		
Accounts payable and accrued liabilities	\$958,537	\$480,374
Lines of credit payable	2,645,577	716,537
Capital lease liability	45,121	-
Other current liabilities	315,291	261,091
<b>Total current liabilities</b>	<b>3,964,526</b>	<b>1,458,002</b>
<b>LONG-TERM LIABILITIES:</b>		
Stock appreciation rights compensation liability	244,774	13,151
Deferred license revenue, net of current portion	1,576,574	1,740,702
Capital lease liability, net of current portion	52,641	-
Other liabilities	8,049	9,636
<b>Total long-term liabilities</b>	<b>1,882,038</b>	<b>1,763,489</b>
<b>COMMITMENTS AND CONTINGENCIES</b>		
<b>SHAREHOLDERS' DEFICIT:</b>		
Common shares, no par value, authorized 50,000,000 shares; issued and outstanding 23,794,374 and 23,034,374 shares at September 30, 2008 and December 31, 2007, respectively	41,145,731	40,704,136
Contributed capital	93,972	93,972
Accumulated deficit	(46,060,432)	(43,844,497)
<b>Total shareholders' deficit</b>	<b>(4,820,729)</b>	<b>(3,046,389)</b>
<b>TOTAL LIABILITIES AND SHAREHOLDERS' DEFICIT</b>	<b>\$1,025,835</b>	<b>\$175,102</b>

See accompanying notes to the condensed consolidated financial statements.

**BIOTIME, INC.**  
**CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS**  
**(Unaudited)**

	Three Months Ended		Nine Months Ended	
	September 30, 2008	September 30, 2007	September 30, 2008	September 30, 2007
<b>REVENUES:</b>				
License fees	\$70,850	\$48,066	\$204,728	\$141,565
Royalties from product sales	341,391	183,093	991,444	546,033
Other revenue	14,690	—	22,340	—
<b>Total revenues</b>	<b>426,931</b>	<b>231,159</b>	<b>1,218,512</b>	<b>687,598</b>
<b>EXPENSES:</b>				
Research and development	(548,478)	(170,382)	(1,312,607)	(724,699)
General and administrative	(792,306)	(216,443)	(1,760,514)	(927,877)
<b>Total expenses</b>	<b>(1,340,784)</b>	<b>(386,825)</b>	<b>(3,073,121)</b>	<b>(1,652,576)</b>
Loss from operations	(913,853)	(155,666)	(1,854,609)	(964,978)
Interest expenses and other income	(163,341)	(57,825)	(361,326)	(146,452)
<b>Net Loss</b>	<b>\$(1,077,194)</b>	<b>\$(213,491)</b>	<b>\$(2,215,935)</b>	<b>\$(1,111,430)</b>
<b>Loss per common share – basic and diluted</b>	<b>\$(0.05)</b>	<b>\$(0.01)</b>	<b>\$(0.09)</b>	<b>\$(0.05)</b>
<b>Weighted average number of common shares outstanding – basic and diluted</b>	<b>23,738,939</b>	<b>22,834,374</b>	<b>23,492,987</b>	<b>22,803,971</b>

See accompanying notes to the condensed consolidated financial statements.

**BIOTIME, INC.**  
**CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS**  
**(Unaudited)**

	Nine months Ended	
	September 30, 2008	September 30, 2007
<b>CASH FLOWS FROM OPERATING ACTIVITIES:</b>		
Net loss	\$(2,215,935)	\$(1,111,430)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation	8,335	4,115
Amortization of deferred finance cost on lines of credit	188,221	18,162
Interest on royalty obligation	–	129,458
Interest on lines of credit	87,095	13,931
Common stock issued for services	43,500	–
Stock-based compensation	376,518	74,043
Changes in operating assets and liabilities:		
Accounts receivable	(1,344)	2,268
Prepaid expenses and other current assets	54,401	18,454
Accounts payable and accrued liabilities	480,382	69,945
Deferred license revenue	(121,759)	(104,836)
Deferred rent	2,999	–
Other liabilities	5,026	412
Net cash used in operating activities	(1,092,561)	(885,478)
<b>CASH FLOWS FROM INVESTING ACTIVITIES:</b>		
Payments of royalty fees	(750,000)	–
Purchase of equipment	(1,390)	(1,779)
Security deposit	(50,000)	–
Net cash used in investing activities	(861,390)	(1,779)
<b>CASH FLOWS FROM FINANCING ACTIVITIES:</b>		
Repayments of line of credit and capital leases	(21,802)	–
Borrowings under lines of credit	1,858,334	340,000
Issuance of common shares	100,000	–
Net cash provided by financing activities	1,936,532	340,000
<b>NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS:</b>		
Cash and cash equivalents at beginning of period	9,501	561,017
Cash and cash equivalents at end of period	\$52,082	\$13,760
Supplemental disclosure of cash flow statement		
Cash paid for interest	\$59,389	–
<b>NON-CASH FINANCING AND INVESTING ACTIVITIES:</b>		
Issuance of stock related to line of credit agreement	(153,200)	–
Issuance of stock related to outside services	(43,500)	–

See accompanying notes to the condensed consolidated financial statements.

**BIOTIME, INC.**  
**NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS**  
**(UNAUDITED)**

**1. Organization**

*General* - BioTime, Inc. ("BioTime") was organized November 30, 1990 as a California corporation. BioTime is a biomedical organization which is engaged in the research and development of synthetic plasma expanders, blood volume substitute solutions, and organ preservation solutions, for use in surgery, trauma care, organ transplant procedures, and other areas of medicine. In October 2007, BioTime announced its entry into the field of regenerative medicine by initiating the development of advanced human stem cell products and technology for diagnostic, therapeutic and research use. Regenerative medicine refers to therapies based on human embryonic stem cell technology that are designed to rebuild cell and tissue function lost due to degenerative disease or injury. Human embryonic stem cells are the first human cells ever discovered that are capable of infinite cell division while possessing the potential to differentiate into all of the cell types of the human body. Stem cells may also have commercial uses in screening for the discovery of experimental new drugs.

The unaudited condensed balance sheet as of September 30, 2008, the unaudited condensed statements of operations for the three and nine months ended September 30, 2008 and 2007, and the unaudited condensed statements of cash flows for the nine months ended September 30, 2008 and 2007 have been prepared by BioTime's management in accordance with the instructions from the Form 10-Q and Article 8-03 of Regulation S-X. In the opinion of management, all adjustments (consisting only of normal recurring adjustments) necessary to present fairly the financial position, results of operations, and cash flows at September 30, 2008 and for all interim periods presented have been made. The balance sheet as of December 31, 2007 is derived from BioTime's audited financial statements as of that date. The results of operations for the three and nine months ended September 30, 2008 and 2007 are not necessarily indicative of the operating results anticipated for the full year.

Certain information and footnote disclosures normally included in financial statements prepared in accordance with generally accepted accounting principles have been condensed or omitted as permitted by regulations of the Securities and Exchange Commission (the "SEC") except for the condensed consolidated balance sheet as of December 31, 2007, which was derived from audited financial statements. Certain previously furnished amounts have been reclassified to conform with presentations made during the current periods. It is suggested that these condensed consolidated financial statements be read in conjunction with the annual audited financial statements and notes thereto included in BioTime's Form 10-KSB for the year ended December 31, 2007.

*Principles of Consolidation* – The accompanying condensed consolidated financial statements include the accounts of Embryome Sciences, Inc. ("Embryome Sciences"), a wholly-owned subsidiary of BioTime. As of September 30, 2008, the only significant transactions with respect to this subsidiary were: (i) a Product Production and Distribution Agreement was executed with Lifeline Cell Technology, LLC, for the production and marketing of embryonic progenitor cells or progenitor cell lines, and products derived from those embryonic progenitor cells, and (ii) certain license agreements with Advanced Cell Technology, Inc. under which Embryome Sciences acquired rights to use certain technology and stem cell lines.

*Certain Significant Risks and Uncertainties* - BioTime's operations are subject to a number of factors that can affect its operating results and financial condition. Such factors include but are not limited to the following: the results of clinical trials of BioTime's pharmaceutical products; BioTime's ability to obtain United States Food and Drug Administration and foreign regulatory approval to market its pharmaceutical products; BioTime's ability to develop new stem cell research products and technologies; competition from products manufactured and sold or being developed by other companies; the price and demand for BioTime products; BioTime's ability to obtain additional financing and the terms of any such financing that may be obtained; BioTime's ability to negotiate favorable licensing or other manufacturing and marketing agreements for its products; the availability of ingredients used in BioTime's products; and the availability of reimbursement for the cost of BioTime's pharmaceutical products (and related treatment) from government health administration authorities, private health coverage insurers and other organizations.

*Liquidity and Going Concern* - The accompanying unaudited condensed financial statements have been prepared assuming BioTime will continue as a going concern. At September 30, 2008, BioTime had \$52,082 of cash on hand and negative working capital of \$3,870,484, a shareholders' deficit of \$4,820,729 and an accumulated deficit of \$46,060,432. BioTime will continue to need additional capital and greater revenues to continue its current operations and to continue to conduct its product development and research programs. Sales of additional equity securities could result in the dilution of the interests of present shareholders. BioTime is also continuing to seek new agreements with pharmaceutical companies to provide product and technology licensing fees and royalties. The availability and terms of equity financing and new license agreements are uncertain. The unavailability or inadequacy of additional financing or future revenues to meet capital needs could force BioTime to modify, curtail, delay or suspend some or all aspects of its planned operations. To mitigate these factors, management has instituted a cost-cutting plan which included a reduction in discretionary general and administrative expenses such as public relations. Additionally, in October 2007, March 2008, and again in November 2008, BioTime's line of credit for working capital was increased and the maturity date was extended (see Notes 3 and 7). BioTime will continue to seek additional financing or capital as well as additional licensing revenues from its current and future patents. In view of the matters described above, BioTime's continued operations are dependent on its ability to raise additional capital, obtain additional financing, reduce its operating costs, and succeed in generating more revenue from its operations. The condensed consolidated financial statements do not include any adjustments relating to the recoverability and classification of recorded asset amounts and classification of liabilities should BioTime be unable to continue as a going concern.

## **2. Summary of Select Significant Accounting Policies**

*Financial Statement Estimates* - - The preparation of unaudited condensed consolidated financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the unaudited condensed consolidated financial statements and the reported amounts of

revenues and expenses during the reporting period. Actual results could differ from those estimates.

*Revenue Recognition* – BioTime complies with the SEC Staff Accounting Bulletin (“SAB”) No. 101, Revenue Recognition, as amended by SAB No. 104. Royalty and license fee revenues consist of product royalty payments and fees under license agreements and are recognized when earned and reasonably estimable. BioTime recognizes revenue in the quarter in which the royalty report is received rather than the quarter in which the sales took place, as it does not have sufficient sales history to accurately predict quarterly sales. Up-front nonrefundable fees where BioTime has no continuing performance obligations are recognized as revenues when collection is reasonably assured. In situations where continuing performance obligations exist, up-front nonrefundable fees are deferred and amortized ratably over the performance period. If the performance period cannot be reasonably estimated, BioTime amortizes nonrefundable fees over the life of the contract until such time that the performance period can be more reasonably estimated. Milestones, if any, related to scientific or technical achievements are recognized in income when the milestone is accomplished if (a) substantive effort was required to achieve the milestone, (b) the amount of the milestone payment appears reasonably commensurate with the effort expended and (c) collection of the payment is reasonably assured.

BioTime also defers costs, including finders’ fees, which are directly related to license agreements for which revenue has been deferred. Deferred costs are charged to expense proportionally and over the same period that related deferred revenue is recognized as revenue. Deferred costs are net against deferred revenues in BioTime’s balance sheet.

Grant income is recognized as revenue when earned.

*Recently Adopted Accounting Pronouncements* – On December 21, 2007, the SEC issued SAB No. 110, which amends SAB No. 107 to allow for the continued use of the simplified method to estimate the expected term in valuing stock options beyond December 31, 2007. The simplified method can only be applied to certain types of stock options for which sufficient exercise history is not available. BioTime has concluded that its historical share option exercise experience does not provide a reasonable basis upon which to estimate the expected term due to the significant structural changes in its business. Therefore, BioTime will continue to use the "simplified" method in developing its estimate of the expected term of the stock options granted under its 1992 and 2002 Stock Option Plans.

In September 2006, the Financial Accounting Standards Board (the “FASB”) issued FASB Statement of Financial Accounting Standards (“SFAS”) No. 157, Fair Value Measurements (“SFAS No. 157”), which defines fair value, establishes a framework for measuring fair value under GAAP, and expands disclosures about fair value measurements. SFAS No. 157 applies to other accounting pronouncements that require or permit fair value measurements. The new guidance is effective for financial statements issued for fiscal years beginning after November 15, 2007, and for interim periods within those fiscal years. BioTime adopted SFAS No. 157 during the quarter ended March 31, 2008 which had no impact on its condensed balance sheets, condensed statement of operations, condensed statement of stockholders’ equity and cash flows.

In February 2007, the FASB issued SFAS No. 159, “The Fair Value Option for Financial Assets and Financial Liabilities.” SFAS No. 159 permits entities to choose to measure many financial instruments, and certain other items, at fair value. SFAS No. 159 was effective January 1, 2008. The adoption of SFAS No. 159 did not have an impact on the consolidated financial statements since BioTime did not elect the fair value option for any of its existing assets or liabilities.

*Recently Issued Accounting Pronouncements* – In December 2007, the FASB issued SFAS No. 141R (revised 2007), “*Business Combinations*” (“SFAS No. 141R”), which replaces SFAS No. 141. SFAS No. 141R establishes the principles and requirements for how an acquirer: (i) recognizes and measures in its financial statements the identifiable assets acquired, the liabilities assumed, and any non-controlling interest in the acquiree; (ii) recognizes and measures the goodwill acquired in the business combination or a gain from a bargain purchase; and (iii) determines what information to disclose to enable users of the financial statements to evaluate the nature and financial effects of the business combination. Additionally, SFAS No. 141R requires that acquisition-related costs be expensed as incurred. The provisions of SFAS No. 141R will become effective for acquisitions completed on or after January 1, 2009; however, the income tax provisions of SFAS No. 141R will become effective as of that date for all acquisitions, regardless of the acquisition date. SFAS No. 141R amends SFAS No. 109, to require the acquirer to recognize changes in the amount of its deferred tax benefits recognizable due to a business combination either in income from continuing operations in the period of the combination or directly in contributed capital, depending on the circumstances. SFAS No. 141R further amends SFAS No. 109 and FIN 48, to require, subsequent to a prescribed measurement period, changes to acquisition-date income tax uncertainties to be reported in income from continuing operations and changes to acquisition-date acquiree deferred tax benefits to be reported in income from continuing operations or directly in contributed capital, depending on the circumstances. BioTime is currently evaluating the impact SFAS No. 141R will have on its future business combinations.

In December 2007, the FASB issued SFAS No. 160, “*Non-controlling Interests in Consolidated Financial Statements—An Amendment of ARB No. 51*” (“SFAS No. 160”). SFAS No. 160 establishes new accounting and reporting standards for the non-controlling interest in a subsidiary and for the deconsolidation of a subsidiary. SFAS No. 160 is effective for fiscal years beginning on or after December 15, 2008. BioTime does not believe the adoption of this statement will have a material effect on its financial position, results of operations, and cash flows.

In March 2008, the FASB issued SFAS No. 161, “*Disclosures about Derivative Instruments and Hedging Activities—An Amendment of FASB Statement No. 133*” (“SFAS No. 161”). SFAS No. 161 applies to all derivative instruments and related hedged items accounted for under FASB Statement No. 133, *Accounting for Derivative Instruments and Hedging Activities*. It requires entities to provide greater transparency about (a) how and why an entity uses derivative instruments, (b) how derivative instruments and related hedged items are accounted for under Statement No. 133 and its related interpretations, and (c) how derivative instruments and related hedged items affect an entity’s financial position, results of operations, and cash flows. SFAS No. 161 is effective for fiscal years and interim periods beginning after November 15, 2008. BioTime does not believe the adoption of this statement will have a material effect on the results of operations or financial condition.



In May 2008, the FASB issued FASB Staff Position ("FSP") Emerging Issues Task Force ("EITF") No. 03-6-1, "Determining Whether Instruments Granted in Share-Based Payment Transactions Are Participating Securities" ("EITF 03-6-1"). EITF 03-6-1 addresses whether instruments granted in share-based payment transactions, with rights to dividends or dividend equivalents, are participating securities prior to vesting and, therefore, need to be included in the earnings allocation in computing earnings per share ("EPS") under the two-class method described in FASB Statement No. 128, "Earnings per Share." Unvested share-based payment awards that contain nonforfeitable rights to dividends or dividend equivalents (whether paid or unpaid) are participating securities and shall be included in the computation of EPS pursuant to the two-class method. In contrast, the right to receive dividends or dividend equivalents that the holder will forfeit if the award does not vest does not constitute a participation right. EITF 03-6-1 is effective for financial statements issued for fiscal years beginning after December 15, 2008, and interim periods within those fiscal years. All prior-period EPS data presented shall be adjusted retrospectively (including interim financial statements, summaries of earnings, and selected financial data). Early adoption of EITF 03-6-1 is prohibited. BioTime will adopt EITF 03-6-1 as of January 1, 2009, and does not currently believe that the adoption will have a material impact on its consolidated financial statements.

In October 2008, the FASB issued FSP No. 157-3, "Determining the Fair Value of a Financial Asset When the Market for That Asset Is Not Active" ("FSP 157-3"). FSP 157-3 clarifies the application of SFAS 157 in a market that is not active and provides an example to illustrate key considerations in determining the fair value of a financial asset when the market for that financial asset is not active. BioTime is still in the process of evaluating the impact that FSP 157-3 will have on its related financial assets.

### **3. Lines of Credit**

BioTime has a revolving line of credit Agreement (the "Credit Agreement") with certain private lenders. On February 15, 2008, Credit Agreement was amended to increase the line of credit from \$1,000,000 to \$1,100,000. BioTime agreed to issue to the new lender 10,000 common shares in return for making the additional credit available. The market value for those shares was \$3,200 on the date of issue, and that cost was fully amortized over the life of the Credit Agreement. The Credit Agreement was subsequently amended again on March 31, 2008 to permit BioTime to borrow up to a total of \$2,500,000, and the maturity date of the revolving line of credit was extended to November 15, 2008. The loans may become payable prior to the maturity date if BioTime receives an aggregate of \$4,000,000 through (A) the sale of capital stock, (B) the collection of license fees, signing fees, milestone fees, or similar fees (excluding royalties) in excess of \$2,500,000 under any present or future agreement pursuant to which BioTime grants one or more licenses to use its patents or technology, (C) funds borrowed from other lenders, or (D) any combination of sources under clauses (A) through (C).

In consideration for making the additional credit available and for extending the maturity date of outstanding loans, BioTime agreed to issue the lenders one common share for each \$5 principal amount of their loan commitment. In total, 500,000 shares were issued on March 31, 2008; those shares had a market value of \$150,000 on that date, and the cost is being amortized over the life of the Credit Agreement. Unamortized cost of \$30,000 is included in prepaid expenses and other current assets as of September 30, 2008.

The lenders have been given the right to exchange their line of credit promissory notes for BioTime's common shares at a price of \$1.00 per share, and/or for common stock of BioTime's subsidiary, Embryome Sciences, Inc., at a price of \$2.00 per share.

At September 30, 2008, BioTime had drawn \$2,483,334 under the Credit Agreement. This line of credit matures on November 15, 2008, and BioTime will seek to obtain the agreement of the lenders to extend the maturity date and to increase the amount of the line of credit under the Credit Agreement.

BioTime also obtained a line of credit from American Express in August 2004, which allows for borrowings up to \$25,300; at September 30, 2008, BioTime had drawn \$23,045 against this line. Interest is paid monthly on borrowings at a total rate equal to the prime rate plus 3.99%; however, regardless of the prime rate, the interest rate payable will at no time be less than 9.49%.

BioTime also secured a line of credit from Advanta in November 2006, which allows for borrowings up to \$35,000; at September 30, 2008, BioTime had drawn \$32,612 against this line. Interest is payable on borrowings at a Variable Rate Index, which will at no time be less than 8.25%.

BioTime has accrued interest of \$106,586 as of September 30, 2008.

#### **4. License and Collaboration Agreements**

BioTime's principle product, Hextend, is a physiologically balanced blood plasma volume expander, for the treatment of hypovolemia. Hextend is being distributed in the United States by Hospira, Inc. and in South Korea by CJ CheilJedang Corp. ("CJ") under exclusive licenses from BioTime. Summit Pharmaceuticals International Corporation ("Summit") has a license to develop Hextend and PentaLyte in Japan, the People's Republic of China, and Taiwan. Summit has entered into sublicenses with Maruishi Pharmaceutical Co., Ltd. ("Maruishi") to obtain regulatory approval, manufacture, and market Hextend in Japan, and Hextend and PentaLyte in China and Taiwan.

In December 2004, BioTime entered into an agreement with Summit Pharmaceuticals International Corporation ("Summit") to co-develop Hextend and PentaLyte for the Japanese market. Under the agreement, BioTime received \$300,000 in December 2004, \$450,000 in April 2005, and \$150,000 in October 2005. The payments represent a partial reimbursement of BioTime's development cost of Hextend and PentaLyte. In June 2005, following BioTime's approval of Summit's business plan for Hextend, BioTime paid to Summit a one-time fee of \$130,000 for their services in preparing the plan. The agreement states that revenues from

Hextend and PentaLyte in Japan will be shared between BioTime and Summit as follows: BioTime 40% and Summit 60%. Additionally, BioTime will pay Summit 8% of all net royalties received from the sale of PentaLyte in the United States.

The accounting treatment of the payments from Summit fell under the guidance of Emerging Issues Task Force (“EITF”) Issue No. 88-18, “Sales of Future Revenues.” EITF No. 88-18 addresses the accounting treatment when an enterprise (BioTime) receives cash from an investor (Summit) and agrees to pay to the investor a specified percentage or amount of the revenue or a measure of income of a particular product line, business segment, trademark, patent, or contractual right. The EITF reached a consensus on six independent factors that would require reclassification of the proceeds as debt. BioTime met one of the factors: BioTime was determined to have had significant continuing involvement in the generation of the cash flows to the investor due to BioTime’s supervision of the Phase II clinical trials of PentaLyte. As a result, BioTime initially recorded the net proceeds from Summit to date of \$770,000 as long-term debt to comply with EITF No. 88-18 even though BioTime is not legally indebted to Summit for that amount.

In July 2005, Summit sublicensed the rights to Hextend in Japan to Maruishi. In consideration for the license, Maruishi agreed to pay Summit a series of milestone payments: Yen 70,000,000, (or \$593,390 based on foreign currency conversion rates at the time) upon executing the agreement, Yen 100,000,000 upon regulatory filing in Japan, and Yen 100,000,000 upon regulatory approval of Hextend in Japan. Consistent with the terms of the BioTime-Summit agreement, Summit paid 40% of that amount, or \$237,356, to BioTime during October 2005. BioTime does not expect the regulatory filing and approval milestones to be attained for several years.

The initial accounting viewed the potential repayment of the \$770,000 imputed debt to come only from the 8% share of U.S. PentaLyte revenues generated by BioTime and paid to Summit. BioTime first became aware of the terms of the Maruishi and Summit agreement during the fourth quarter of 2005, prepared an estimate of the future cash flows, and determined that Summit would earn a majority of their return on investment from their agreement with Maruishi, and not the 8% of BioTime’s U.S. PentaLyte sales. Considering this, the \$770,000 was viewed as a royalty obligation which would be reduced by Summit’s 8% share of BioTime’s U.S. PentaLyte sales plus Summit’s 60% share of Japanese revenue. Accordingly, BioTime recorded the entire amount paid by Maruishi to Summit for the sublicense of \$593,390 as deferred revenue, to be amortized over the remaining life of the patent through 2019. BioTime’s 40% share of this payment was collected in October 2005 and the remaining 60% share was recorded as a reduction of the long-term royalty obligation of BioTime to Summit. Interest on the long-term royalty obligation was accrued monthly using the effective interest method beginning October 2005, using a rate of 25.2% per annum, which BioTime had determined was the appropriate interest rate when the future cash flows from the transaction were considered.

In 2007, BioTime completed its Phase II trials of PentaLyte, however was unable to find a suitable licensing agreement for the product. At this time, BioTime has deemed the continuation of the clinical trials necessary to bring this product to market to be a significantly lower priority than it had been in the past. Correspondingly, it is less likely that proceeds from the 8% of PentaLyte U.S. sales will be sufficient to pay down the Summit Royalty Obligation

prior to the expiration of the patents. As a result of this change in accounting estimates, BioTime has reevaluated treatment of this transaction. The transaction no longer meets any of the factors that require it to fall under the guidance from EITF 88-18. Consequently, BioTime has reclassified the royalty obligation to deferred revenue and is amortizing it over the remaining life of the underlying patents.

On January 3, 2008, BioTime entered into a Commercial License and Option Agreement with Wisconsin Alumni Research Foundation (“WARF”). The WARF license permits BioTime to use certain patented and patent pending technology belonging to WARF, as well as certain stem cell materials, for research and development purposes, and for the production and marketing of products used as research tools, including in drug discovery and development.

BioTime will pay WARF a license fee of \$225,000 in two installments. The first installment, in the amount of \$10,000, was paid and charged to operations during January 2008. The remaining \$215,000 is due on the earlier of (i) thirty (30) days after BioTime raises \$5,000,000 or more of new equity financing, or (ii) January 3, 2009. A maintenance fee of \$25,000 will be due annually on January 3 of each year during the term of the License.

BioTime or Embryome Sciences will pay WARF royalties on the sale of products and services using the technology or stem cells licensed from WARF. The royalty will range from 2% to 4%, depending on the kind of products sold. The royalty rate is subject to certain reductions if BioTime also becomes obligated to pay royalties to a third party in order to sell a product.

BioTime will also pay WARF \$25,000 toward reimbursement of the costs associated with preparing, filing and maintaining the licensed WARF patents. That fee is payable in two installments. The first installment of \$5,000 was paid and charged to operations during January 2008, and the remaining \$20,000 is due on the earlier of (i) thirty (30) days after BioTime raises \$5,000,000 or more of new equity financing, or (ii) January 3, 2009.

On June 24, 2008, BioTime, along with its subsidiary, Embryome Sciences, entered into a Product Production and Distribution Agreement with Lifeline Cell Technology, LLC for the production and marketing of embryonic progenitor cells or progenitor cell lines, and products derived from those embryonic progenitor cells. The products developed under the agreement with Lifeline will be produced and sold for research purposes, such as drug discovery and drug development uses.

The proceeds from the sale of products to certain distributors with which Lifeline has a pre-existing relationship will be shared equally by Embryome Sciences and Lifeline, after deducting royalties payable to licensors of the technology used, and certain production and marketing costs. The proceeds from products produced for distribution by both Embryome Sciences and Lifeline, and products produced by one party at the request of the other party, will be shared in the same manner. Proceeds from the sale of other products, which are produced for distribution by one party, generally will be shared 90% by the party that produced the product for distribution, and 10% by the other party after deducting royalties payable to licensors of technology used. In the case of the sale of these products, the party that produces the product and receives 90% of the sales proceeds will bear all of the production and marketing costs of the product.

The products will be produced using technology and stem cell lines licensed from WARF, technology developed by Embryome Sciences, technology developed by Lifeline, and technology licensed from Advanced Cell Technology, Inc. WARF and Advanced Cell Technology will receive royalties from the sale of the products developed using their licensed technology and stem cells.

BioTime and Embryome Sciences paid Lifeline \$250,000 to facilitate their product production and marketing efforts. BioTime has accounted for this payment on the balance sheet in the “Advanced license fee and others” line item. Embryome Sciences will be entitled to recover that amount from the share of product sale proceeds that otherwise would have been allocated to Lifeline.

On July 10, 2008, BioTime’s subsidiary Embryome Sciences, Inc. entered into a License Agreement with Advanced Cell Technology, Inc. (“ACT”) under which Embryome Sciences acquired exclusive world-wide rights to use ACT’s “ACTCellerate” technology for methods to accelerate the isolation of novel cell strains from pluripotent stem cells. Embryome Sciences paid ACT a \$250,000 license fee – this payment has also been accounted for on the balance sheet in the “Advanced license fee and others” line item – and will pay an 8% royalty on sales of products, services, and processes that utilize the licensed technology. Once a total of \$1,000,000 of royalties has been paid, no further royalties will be due. The licenses will expire in twenty years or upon the expiration of the last to expire of the licensed patents, whichever is later.

On August 15, 2008, Embryome Sciences entered into a License Agreement and a Sublicense Agreement with ACT under which Embryome Sciences acquired world-wide rights to use an array of ACT technology (the “ACT License”) and technology licensed by ACT from affiliates of Kirin Pharma Company, Limited (the “Kirin Sublicense”). The ACT License and Kirin Sublicense permit the commercialization of products in human therapeutic and diagnostic product markets.

The technology licensed by Embryome Sciences covers methods to transform cells of the human body, such as skin cells, into an embryonic state in which the cells will be pluripotent. Under the ACT License, Embryome Sciences paid ACT a \$200,000 license fee – this payment has also been accounted for on the balance sheet in the “Advanced license fee and others” line item – and will pay a 5% royalty on sales of products, services, and processes that utilize the licensed ACT technology, and 20% of any fees or other payments (other than equity investments, research and development costs, loans and royalties) received by Embryome Sciences from sublicensing the ACT technology to third parties. Once a total of \$600,000 of royalties has been paid, no further royalties will be due. The licenses will expire in twenty years or upon the expiration of the last to expire of the licensed patents, whichever is later.

Under the Kirin Sublicense, Embryome Sciences has paid ACT a \$50,000 license fee – this payment has also been accounted for on the balance sheet in the “Advanced license fee and others” line item – and will pay a 3.5% royalty on sales of products, services, and processes that utilize the licensed ACT technology, and 20% of any fees or other payments (other than equity investments, research and development costs, loans and royalties) received by Embryome Sciences from sublicensing the Kirin Technology to third parties. Embryome Sciences will also

pay to ACT or to an affiliate of Kirin Pharma Company, Limited (“Kirin”), annually, the amount, if any, by which royalties payable by ACT under its license agreement with Kirin are less than the \$50,000 annual minimum royalty due. Those payments by Embryome Sciences will be credited against other royalties payable to ACT under the Kirin Sublicense. The licenses will expire upon the expiration of the last to expire of the licensed patents, or May 9, 2016 if no patents are issued.

## 5. Shareholders’ Deficit

During April 1998, BioTime entered into a financial advisory services agreement with Greenbelt Corp. (“Greenbelt”), a corporation controlled by Alfred D. Kingsley and Gary K. Duberstein, who are also shareholders of BioTime. BioTime agreed to indemnify Greenbelt and its officers, affiliates, employees, agents, assignees, and controlling person from any liabilities arising out of or in connection with actions taken on BioTime's behalf under the agreement. The agreement was renewed annually through March 31, 2007. BioTime paid Greenbelt \$90,000 in cash and issued 200,000 common shares for the twelve months ending March 31, 2007. Greenbelt permitted BioTime to defer paying certain cash fees until October 2007. In return for allowing the deferral, Greenbelt was issued an additional 60,000 common shares by BioTime.

On March 31, 2008, BioTime entered into an amendment to its financial adviser agreement with Greenbelt, renewing that agreement through December 31, 2008. Under the amendment, BioTime will pay Greenbelt a total fee of \$135,000 in cash and will issue a total of 300,000 common shares. BioTime issued 150,000 common shares to Greenbelt on April 1, 2008, issued another 75,000 common shares on October 1, 2008, and will issue a final 75,000 common shares on January 2, 2009. The cash fee is payable in three equal installments of \$45,000 each on July 1, 2008, October 1, 2008, and January 2, 2009. In accordance with its rights under the agreement, BioTime has elected to defer until January 2, 2009 the cash payments due on July 1, 2008 and October 1, 2008, and in consideration for these deferrals will issue to Greenbelt 30,000 additional common shares for each payment deferred; these additional shares will be issued in conjunction with the cash payments on January 2, 2009.

The agreement will terminate on December 31, 2008, unless BioTime or Greenbelt terminates it on an earlier date. In the event of an early termination, BioTime will pay Greenbelt a pro rata portion of the cash and shares earned during the calendar quarter in which the agreement terminated, based upon the number of days elapsed.

Activity related to the Greenbelt agreement is presented in the table below:

	Balance included in Accounts Payable at January 1,	Add: Cash-based expense accrued	Add: Stock-based expense accrued	Less: Cash payments	Less: Value of stock-based payments	Balance included in Accounts Payable at September 30,
2008	\$ 90,000	\$ 101,250	\$172,650	\$(0)	\$ (43,500)	\$ 320,400
2007	\$108,000	\$ 22,500	\$ 62,500	\$(0)	\$(103,000)	\$ 90,000

During the third quarter of 2008, BioTime sold 100,000 common shares to a private investor for \$100,000.

## 6. Loss Per Share

Basic loss per share excludes dilution and is computed by dividing net loss by the weighted average number of common shares outstanding during the period. Diluted loss per share reflects the potential dilution from securities and other contracts which are exercisable or convertible into common shares. For the three and nine months ended September 30, 2008 and 2007, options to purchase 3,548,332 and 1,691,664 common shares, respectively, and warrants to purchase 7,947,867 and 7,847,867 common shares, respectively, were excluded from the computation of loss per share, as their inclusion would be antidilutive. As a result, there is no difference between basic and diluted calculations of loss per share for all periods presented.

## 7. Subsequent Events

BioTime received royalties in the amount of \$231,896 during October 2008 based on sales of Hextend made by Hospira, Inc. and CJ CheilJedang Corp. in the third quarter of 2008. This revenue will be reflected in BioTime's consolidated financial statements for the year ending December 31, 2008.

On October 1, 2008, under the terms of its current financial adviser agreement, BioTime issued 75,000 common shares to Greenbelt Corp. BioTime also elected to defer until January 1, 2009 a cash payment of \$45,000 that was otherwise payable on October 1, 2008. As consideration for this deferral, BioTime will issue to Greenbelt an additional 30,000 common shares at the time the cash payment is made.

BioTime has a revolving line of credit Agreement (the "Credit Agreement") with certain private lenders. In November 2008, BioTime amended the Credit Agreement to increase the total amount of permissible borrowings from \$2,500,000 to \$3,500,000 to the extent BioTime is able to obtain additional lending commitments. The maturity date for the amended line of credit has been extended from November 15, 2008 to April 15, 2009. As of November 17, 2008, certain lenders elected to convert \$1,050,000 in principal and \$62,013 of accrued interest on their loans to 1,112,013 BioTime common shares. Loans in the aggregate principal amount of \$1,450,000 remain outstanding under the Credit Agreement and will mature on April 15, 2009.

The lenders have been given the right to exchange their line of credit promissory notes that mature on April 15, 2009 for BioTime's common shares at prices ranging from \$1.25 to \$1.50 per share, and/or for common stock of BioTime's subsidiary, Embryome Sciences, Inc., at prices ranging from \$2.25 to \$2.50 per share.

In consideration for making the additional credit available and for extending the maturity date of outstanding loans, BioTime agreed to issue the lenders a number of common shares having an aggregate market value equal to six percent (6%) of the lender's loan commitment.

Also in November 2008, BioTime's subsidiary, Embryome Sciences, entered into new loan agreements with certain private lenders under which the lenders agreed to loan \$275,000 to Embryome Sciences. Interest on the loans shall accrue and be payable at the rate of 9.8% per annum on the outstanding principal balance until the maturity date, which is April 15, 2009.

Embryome Sciences may prepay the principal, in whole or in part, with accrued interest, at any time. As consideration for arranging the loans, BioTime will issue warrants to purchase up to 277,919 common shares. The warrants will be exercisable at a price of \$2.00 per share, and will expire on October 31, 2010 if not exercised prior to that date.

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

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

#### Overview

Since our inception in November 1990, we have been engaged primarily in research and development activities, which have culminated in the commercial launch of Hextend<sup>®</sup>, our lead product, and a clinical trial of PentaLyte<sup>®</sup>. Our operating revenues have been generated primarily from licensing fees and from royalties on the sale of Hextend. During October 2007, we entered the field of regenerative medicine where we plan to develop stem cell related products and technology for diagnostic, therapeutic and research use. Our ability to generate substantial operating revenue depends upon our success in developing and marketing or licensing our plasma volume expanders, stem cell products, and organ preservation solutions and technology for medical and research use.

#### Plasma Volume Expander Products

Our principal product, Hextend, is a physiologically balanced blood plasma volume expander, for the treatment of hypovolemia. Hextend is being distributed in the United States by Hospira, Inc. and in South Korea by CJ CheilJedang Corp. ("CJ") under exclusive licenses from us. Summit Pharmaceuticals International Corporation ("Summit") has a license to develop Hextend and PentaLyte in Japan, the People's Republic of China, and Taiwan. Summit has entered into sublicenses with Maruishi Pharmaceutical Co., Ltd. ("Maruishi") to obtain regulatory approval, manufacture, and market Hextend in Japan, and Hextend and PentaLyte in China and Taiwan.

Hextend has become the standard plasma volume expander at a number of prominent teaching hospitals and leading medical centers and is part of the Tactical Combat Casualty Care protocol. We believe that as Hextend use proliferates within the leading U.S. hospitals, other smaller hospitals will follow their lead, contributing to sales growth.

Under our license agreements, Hospira and CJ will report sales of Hextend and pay us the royalties and license fees due on account of such sales after the end of each calendar quarter. We recognize such revenues in the quarter in which the sales report is received, rather than the quarter in which the sales took place.

Our royalty revenues for the three months ended September 30, 2008 consist of royalties on sales of Hextend made by Hospira during the period beginning April 1, 2008 and ending June 30, 2008. Royalty revenues recognized for that three-month period were \$341,391, an 86% increase from the \$183,093 of royalty revenue during the same period last year. The increase in royalties reflects an increase in sales to the United States Armed Forces. Purchases by the Armed Forces generally take the form of intermittent, large volume orders, and cannot be predicted with certainty.



We received royalties of \$212,009 from Hospira and \$19,887 from CJ during October 2008 based on sales of Hextend during the three months ended September 30, 2008. This revenue will be reflected in our financial statements for the fourth quarter of 2008. For the same period last year, we received royalties of \$230,646 from Hospira and \$15,036 from CJ. Royalties from CJ were included in license fees during prior accounting periods.

We have completed a Phase II clinical trial of PentaLyte in which PentaLyte was used to treat hypovolemia in cardiac surgery. Our ability to commence and complete additional clinical studies of PentaLyte depends on our cash resources and the costs involved, which are not presently determinable as we do not know yet the actual scope or cost of the clinical trials that the FDA will require for PentaLyte.

### **Stem Cells and Products for Regenerative Medicine Research**

We are conducting our stem cell business through our new, wholly-owned subsidiary, Embryome Sciences, Inc. (“Embryome Sciences”). We plan to focus our initial efforts in the regenerative medicine field on the development and sale of advanced human stem cell products and technology for diagnostic, therapeutic and research use. Regenerative medicine refers to therapies based on human embryonic stem (“hES”) cell technology that are designed to rebuild cell and tissue function lost due to degenerative disease or injury. Our initial marketing efforts will be directed to researchers at universities and other institutions, to companies in the bioscience and biopharmaceutical industries, and to other companies that provide research products to companies in those industries.

Embryome Sciences has already introduced its first stem cell research products, and is implementing plans to develop additional research products over the next two years. Our first products include a relational database, available at our website [embryome.com](http://embryome.com), that will permit researchers to chart the cell lineages of human development, the genes expressed in those cell types, and antigens present on the cell surface of those cells that can be used in purification. This database will provide the first detailed map of the embryome, thereby aiding researchers in navigating the complexities of human development and in identifying the many hundreds of cell types coming from embryonic stem cells.

Embryome Sciences is also now marketing cell growth media called ESpan™ in collaboration with Lifeline Cell Technology, LLC. These growth media are designed for the growth of human embryonic progenitor cells. Additional new products that Embryome Sciences has targeted for development are ESpy™ cell lines, which will be derivatives of hES cells that send beacons of light in response to the activation of particular genes. The ESpy™ cell lines will be developed in conjunction with Lifeline using the ACTCellerate technology licensed from ACT and other technology sublicensed from Lifeline. Embryome Sciences also plans to bring to market other new growth and differentiation factors that will permit researchers to manufacture specific cell types from embryonic stem cells, and purification tools useful to researchers in quality control of products for regenerative medicine. As new products are developed, they will become available for purchase on [embryome.com](http://embryome.com).

We are in the process of launching our first products for stem cell research. We cannot predict the amount of revenue that the new products we offer might generate.

Hextend®, PentaLyte®, and HetaCool® are registered trademarks of BioTime, Inc., and ESpan™ and Espy™ are trademarks of Embryome Sciences, Inc.

## **Results of Operations**

We incurred a net loss of \$1,077,194 during the three months, and a net loss of \$2,215,935 during the nine months, ended September 30, 2008. Because our research and development expenses and production and marketing expenses will be charged against earnings for financial reporting purposes, management expects that there will be losses from operations in the near term.

### *Revenues*

For the three months ended September 30, 2008, we recognized \$341,391 in royalty revenue, whereas we recognized \$183,093 for the three months September 30, 2007. This increase of 86% in royalties is attributable to an increase in product sales by Hospira, and reflects an increase in sales both to hospitals and to the United States Armed Forces.

We recognized \$70,850 and \$48,066 of license fees from CJ and Summit during the three months ended September 30, 2008 and the three months ended September 30, 2007, respectively. These licensing fee amounts were received in earlier accounting periods, but full recognition of license fees has been deferred, and is being recognized over the life of the contract, which has been estimated to last until approximately 2019 based on the current expected life of the governing patent covering our products in Korea and Japan. See Notes 2 and 4 to the condensed consolidated financial statements.

### *Operating Expenses*

Research and development expenses were \$548,478 for the three months ended September 30, 2008, compared to \$170,382 for the three months ended September 30, 2007. This increase is primarily attributable to a \$118,361 increase in salaries allocated to research and development, an increase of \$25,567 in payroll fees and taxes allocated to research and development expense, an increase of \$9,347 in fees paid to scientific consultants, an increase of \$8,380 in miscellaneous research and development costs, an increase of \$15,228 in insurance costs allocated to research and development expense, an increase of \$68,985 in expenditures made to cover laboratory expenses and supplies, and an increase of \$121,953 in rent costs allocated to research and development expense. Research and development expenses were \$1,312,607 for the nine months ended September 30, 2008, compared to \$724,699 for the nine months ended September 30, 2007. This increase is primarily attributable to a \$224,641 increase in salaries allocated to research and development, an increase of \$67,540 in payroll fees and taxes allocated to research and development expense, an increase of \$44,350 in insurance costs allocated to research and development expense, an increase of \$8,380 in miscellaneous research and development costs, an increase of \$140,610 in expenditures made to cover laboratory expenses and supplies,

and an increase of \$180,160 in rent costs allocated to research and development expense; these increases were offset to some extent by a decrease of \$108,766 in expenses paid for outside research. Research and development expenses include laboratory study expenses, salaries, and consultants' fees.

General and administrative expenses increased to \$792,306 for the three months ended September 30, 2008, from \$216,443 for the three months ended September 30, 2007. This increase is primarily attributable to an increase of \$270,358 in stock-based expense allocated to general and administrative costs, an increase of \$18,766 in legal fees, an increase of \$30,672 in patent expenses, an increase of \$34,365 in travel and entertainment expenses, an increase of \$12,889 in salaries allocated to general and administrative expense, an increase of \$34,263 in accounting fees, an increase of \$9,295 in investor relations expenses, an increase of \$30,487 in rent costs allocated to general and administrative expense, and an increase of \$127,368 in general and administrative consulting fees. General and administrative expenses increased to \$1,760,514 for the nine months ended September 30, 2008, from \$927,877 for the nine months ended September 30, 2007. This increase is primarily attributable to an increase of \$347,275 in stock-based expense allocated to general and administrative costs, an increase of \$89,789 in legal fees, an increase of \$91,010 in travel and entertainment expenses, an increase of \$19,368 in expenses related to outside services, an increase of \$15,000 in licensing fees, an increase of \$30,078 in office expenses, an increase of \$45,039 in rent costs allocated to general and administrative expense, an increase of \$22,004 in payroll fees and taxes allocated to general and administrative expense, an increase of \$16,956 in investor relations expenses, and an increase of \$155,828 in general and administrative consulting fees.

Research and development expenses and general and administrative expenses for the three months and nine months ended September 30, 2008 increased over the same periods in 2007 due primarily to our entry into the fields of stem cell research and regenerative medicine.

#### *Interest and Other Income (Expense)*

For the three months ended Sept. 30, 2008, we incurred a total of \$164,460 of net interest expense, compared to net interest expense of \$59,234 for the three months ended September 30, 2007. For the nine months ended September 30, 2008, we incurred a total of \$366,795 of net interest expense, compared to net interest expense of \$163,053 for the nine months ended September 30, 2007.

#### *Income Taxes*

During the three months ended September 30, 2008, we incurred no foreign withholding taxes. With respect to Federal and state income taxes, our effective income tax rate differs from the statutory rate due to the 100% valuation allowance established for our deferred tax assets, which relate primarily to net operating loss carryforwards, as realization of such benefits is not deemed to be likely.

## Liquidity and Capital Resources

We need to obtain additional debt or equity capital in order to finance our operations. Since inception, we have primarily financed our operations through the sale of equity securities, licensing fees, royalties on product sales by our licensees, and borrowings. The amount of license fees and royalties that may be earned through the licensing and sale of our products and technology, the timing of the receipt of license fee payments, and the future availability and terms of equity financing, are uncertain. The unavailability or inadequacy of financing or revenues to meet future capital needs could force us to modify, curtail, delay or suspend some or all aspects of our planned operations. Sales of additional equity securities could result in the dilution of the interests of present shareholders.

The major components of our net cash used in operations of approximately \$1,100,000 in the nine months ended September 30, 2008 can be summarized as follows: net loss of approximately \$2,200,000 was reduced by non-cash expenses of approximately \$704,000, resulting in the cash loss of approximately \$1,500,000 which was partly funded with a net overall change in working capital of approximately \$412,000.

At September 30, 2008, we had \$52,082 cash and cash equivalents on hand, and lines of credit for \$2,578,600, from which \$2,538,991 had been drawn.

During the three months ended June 30, 2008, Embryome Sciences paid a total of \$500,000 in license fees to acquire stem cell technology licenses for its research and development program.

We have a Revolving Line of Credit Agreement (the "Credit Agreement") with certain private lenders that is collateralized by a security interest in our right to receive royalty and other payments under our license agreement with Hospira. In November 2008, we amended the Credit Agreement to increase the total amount of permissible borrowings from \$2,500,000 to \$3,500,000 to the extent we are able to obtain additional lending commitments. The maturity date for the amended line of credit has been extended from November 15, 2008 to April 15, 2009. As of November 17, 2008, certain lenders elected to convert \$1,050,000 in principal and \$62,013 of accrued interest on their loans to 1,112,013 BioTime common shares. Loans in the aggregate principal amount of \$1,450,000 remain outstanding under the Credit Agreement and will mature on April 15, 2009. We intend to seek additional loan commitments up to the \$3,500,000 maximum allowable amount under the Credit Agreement. There is no assurance that we will be successful in obtaining additional commitments from lenders.

The lenders have been given the right to exchange their line of credit promissory notes that mature on April 15, 2009, for our common shares at prices ranging from \$1.25 to \$1.50 per share, and/or for common stock of our subsidiary, Embryome Sciences, at prices ranging from \$2.25 to \$2.50 per share.

We also obtained a line of credit from American Express in August 2004, which allows for borrowings up to \$25,300; at September 30, 2008, we had drawn \$23,045 against this line. See Note 3 to the condensed consolidated financial statements for additional information.

We also secured a line of credit from Advanta in November 2006, which allows for borrowings up to \$35,000; at September 30, 2008, we had drawn \$32,612 against this line. See Note 3 to the condensed consolidated financial statements for additional information.

In consideration for making the additional credit available and for extending the maturity date of outstanding loans, we agreed to issue the lenders a number of common shares having an aggregate market value equal to six percent (6%) of the lender's loan commitment.

In November 2008, Embryome Sciences entered into new loan agreements with certain private lenders under which the lenders agreed to loan \$275,000 to Embryome Sciences. Interest on the loans shall accrue and be payable at the rate of 9.8% per annum on the outstanding principal balance until the maturity date, which is April 15, 2009. Embryome Sciences may prepay the principal, in whole or in part, with accrued interest, at any time. As consideration for arranging the loans, we will issue warrants to purchase up to 277,919 common shares. The warrants will be exercisable at a price of \$2.00 per share, and will expire on October 31, 2010 if not exercised prior to that date.

We will depend upon royalties from the sale of Hextend by Hospira and CJ as our principal source of revenues for the near future. Those royalty revenues will be supplemented by any revenues that we may receive from our stem cell research products, and by license fees if we enter into new commercial license agreements for our products.

The amount and pace of research and development work that we can do or sponsor, and our ability to commence and complete the clinical trials that are required in order for us to obtain FDA and foreign regulatory approval of products, depend upon the amount of money we have. Future research and clinical study costs are not presently determinable due to many factors, including the inherent uncertainty of these costs and the uncertainty as to timing, source, and amount of capital that will become available for these projects. We have already curtailed the pace of our plasma volume expander development efforts due to the limited amount of funds available, and we may have to postpone further laboratory and clinical studies, unless our cash resources increase through growth in revenues, the completion of licensing agreements, additional equity investment, borrowing, or third party sponsorship.

We have no contractual obligations as of September 30, 2008, with the exception of two facilities lease agreements. We currently have a fixed, non-cancelable operating lease on our office and laboratory facilities in Emeryville, California (the "Emeryville lease"). Under the Emeryville lease, we are committed to make payments of \$11,127 per month, increasing 3% annually, plus our pro rata share of operating costs for the building and office complex, through May 31, 2010. We plan to sublet our Emeryville facility if we are able to find a suitable subtenant. In April 2008, we entered into a sublease of approximately 11,000 square feet of office and research laboratory spaced at 1301 Harbor Bay Parkway, in Alameda, California (the "Alameda sublease"). We have now moved our headquarters to this new facility. The Alameda sublease will expire on November 30, 2010. Base monthly rent will be \$22,000 during 2008, \$22,660 during 2009, and \$23,340 during 2010. In addition to base rent, we will pay a pro rata share of real property taxes and certain costs related to the operation and maintenance of the building in which the subleased premises are located.

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

We did not hold any market risk sensitive instruments as of September 30, 2008, December 31, 2007, or September 30, 2007.

#### **Item 4T. Controls and Procedures**

##### *Evaluation of Disclosure Controls and Procedures*

It is management's responsibility to establish and maintain adequate internal control over all financial reporting pursuant to Rule 13a-15 under the Securities Exchange Act of 1934 (the "Exchange Act"). Our management, including our principal executive officer, our principal operations officer, and our principal financial officer, have reviewed and evaluated the effectiveness of our disclosure controls and procedures as of a date within ninety (90) days of the filing date of this Form 10-Q quarterly report. Following this review and evaluation, management collectively determined that our disclosure controls and procedures are effective to ensure that information required to be disclosed by us in reports that we file or submit under the Exchange Act (i) is recorded, processed, summarized and reported within the time periods specified in SEC rules and forms, and (ii) is accumulated and communicated to management, including our chief executive officer, our chief operations officer, and our chief financial officer, as appropriate to allow timely decisions regarding required disclosure.

##### *Changes in Internal Controls*

There were no changes in our internal control over financial reporting that occurred during the period covered by this Quarterly Report on Form 10-Q that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

## PART II - OTHER INFORMATION

### Item 2. Unregistered Sale of Equity Securities and Use of Proceeds.

During August 2008 we sold 100,000 common shares to a private investor. These shares were issued in reliance upon an exemption from registration under Section 4(2) of the Securities Act of 1933, as amended.

During October 2008, we issued 75,000 common shares to our financial advisor under the terms of our Financial Advisor Agreement. These shares were issued in reliance upon an exemption from registration under Section 4(2) of the Securities Act of 1933, as amended.

During November 2008 we agreed to issue warrants to purchase 277,919 common shares in connection with the arrangement of loans to Embryome Sciences by certain private investors. These warrants will be issued in reliance upon an exemption from registration under Section 4(2) of the Securities Act of 1933, as amended.

During November 2008, some of our lenders elected to acquire our common shares in exchange for their promissory notes under the terms of our Credit Agreement. We will issue 1,112,013 common shares to those lenders in reliance upon an exemption from registration under Section 4(2) of the Securities Act of 1933, as amended. In addition we will issue 54,504 common shares to those lenders who agreed to extend the maturity date of their loans under our Credit Agreement. Those shares will also be issued in reliance upon an exemption from registration under Section 4(2) of the Securities Act of 1933, as amended.

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## Item 6. Exhibits

Exhibit

Numbers Description

- 3.1 Articles of Incorporation.†
- 3.2 Amendment of Articles of Incorporation.\*\*\*
- 3.3 By-Laws, As Amended.#
- 4.1 Specimen of Common Share Certificate.+
- 4.2 Form of Warrant Agreement between BioTime, Inc. and American Stock Transfer & Trust Company++
- 4.3 Form of Amendment to Warrant Agreement between BioTime, Inc. and American Stock Transfer & Trust Company.+++
- 4.4 Form of Warrant+++
- 10.1 Intellectual Property Agreement between BioTime, Inc. and Hal Sternberg.+
- 10.2 Intellectual Property Agreement between BioTime, Inc. and Harold Waitz.+
- 10.3 Intellectual Property Agreement between BioTime, Inc. and Judith Segall.+
- 10.4 Intellectual Property Agreement between BioTime, Inc. and Steven Seinberg.\*



- 10.5 Agreement between CMSI and BioTime Officers Releasing Employment Agreements, Selling Shares, and Transferring Non-Exclusive License.+
- 10.6 Agreement for Trans Time, Inc. to Exchange CMSI Common Stock for BioTime, Inc. Common Shares.+
- 10.7 2002 Stock Option Plan, as amended.##
- 10.8 Exclusive License Agreement between Abbott Laboratories and BioTime, Inc. (Portions of this exhibit have been omitted pursuant to a request for confidential treatment).###
- 10.9 Modification of Exclusive License Agreement between Abbott Laboratories and BioTime, Inc. (Portions of this exhibit have been omitted pursuant to a request for confidential treatment).^
- 10.10 Exclusive License Agreement between BioTime, Inc. and CJ Corp.\*\*
- 10.11 Hextend and PentaLyte Collaboration Agreement between BioTime, Inc. and Summit Pharmaceuticals International Corporation.‡
- 10.12 Lease dated as of May 4, 2005 between BioTime, Inc. and Hollis R& D Associates ‡‡
- 10.13 Addendum to Hextend and PentaLyte Collaboration Agreement Between BioTime Inc. And Summit Pharmaceuticals International Corporation‡‡‡
- 10.14 Amendment to Exclusive License Agreement Between BioTime, Inc. and Hospira, Inc.††
- 10.15 Hextend and PentaLyte China License Agreement Between BioTime, Inc. and Summit Pharmaceuticals International Corporation.†††
- 10.16 Revolving Credit Line Agreement between BioTime, Inc, Alfred D. Kingsley, Cyndel & Co., Inc., and George Karfunkel, dated April 12, 2006.††††
- 10.17 Security Agreement executed by BioTime, Inc., dated April 12, 2006.††††
- 10.18 Form of Revolving Credit Note of BioTime, Inc. in the principal amount of \$166,666.67 dated April 12, 2006.††††
- 10.19 First Amended and Restated Revolving Line of Credit Agreement, dated October 17, 2007. #####
- 10.20 Form of Amended and Restated Revolving Credit Note. #####
- 10.21 Form of Revolving Credit Note. #####
- 10.22 First Amended and Restated Security Agreement, dated October 17, 2007. #####
- 10.23 Employment Agreement, dated October 10, 2007, between BioTime, Inc. and Michael D. West.++++

- 10.24 Commercial License and Option Agreement between BioTime and Wisconsin Alumni Research Foundation.\*\*\*\*
- 10.25 Second Amended and Restated Revolving Line of Credit Agreement, dated February 15, 2008.###
- 10.26 Form of Amended and Restated Revolving Credit Note.###
- 10.27 Second Amended and Restated Security Agreement, dated February 15, 2008.###
- 10.28 Third Amended and Restated Revolving Line of Credit Agreement, March 31, 2008.~
- 10.29 Third Amended and Restated Security Agreement, dated March 31, 2008.~
- 10.30 Sublease Agreement between BioTime, Inc. and Avigen, Inc.++++
- 10.31 License, Product Production, and Distribution Agreement, dated June 19, 2008, among Lifeline Cell Technology, LLC, BioTime, Inc., and Embryome Sciences, Inc. ^^
- 10.32 License Agreement, dated July 10, 2008, between Embryome Sciences, Inc. and Advanced Cell Technology, Inc. ^^
- 10.33 License Agreement, dated August 15, between Embryome Sciences, Inc. and Advanced Cell Technology, Inc. ^^
- 10.34 Sublicense Agreement, dated August 15, between Embryome Sciences, Inc. and Advanced Cell Technology, Inc. ^^
- 10.35 Fourth Amendment of Revolving Line of Credit Agreement.^^
- 10.36 Fourth Amendment of Security Agreement.^^
- 31 Rule 13a-14(a)/15d-14(a) Certification^^
- 32 Section 1350 Certification^^

†Incorporated by reference to BioTime's Form 10-K for the fiscal year ended June 30, 1998.

+ Incorporated by reference to Registration Statement on Form S-1, File Number 33-44549 filed with the Securities and Exchange Commission on December 18, 1991, and Amendment No. 1 and Amendment No. 2 thereto filed with the Securities and Exchange Commission on February 6, 1992 and March 7, 1992, respectively.

# Incorporated by reference to Registration Statement on Form S-1, File Number 33-48717 and Post-Effective Amendment No. 1 thereto filed with the Securities and Exchange Commission on June 22, 1992, and August 27, 1992, respectively.

++ Incorporated by reference to Registration Statement on Form S-2, File Number 333-109442, filed with the Securities and Exchange Commission on October 3, 2003, and Amendment No.1 thereto filed with the Securities and Exchange Commission on November 13, 2003.

+++Incorporated by reference to Registration Statement on Form S-2, File Number 333-128083, filed with the Securities and Exchange Commission on September 2, 2005.

## Incorporated by reference to Registration Statement on Form S-8, File Number 333-101651 filed with the Securities and Exchange Commission on December 4, 2002 and Registration Statement on Form S-8, File Number 333-122844 filed with the Securities and Exchange Commission on February 23, 2005.

### Incorporated by reference to BioTime's Form 8-K, filed April 24, 1997.

^ Incorporated by reference to BioTime's Form 10-Q for the quarter ended June 30, 1999.

\* Incorporated by reference to BioTime's Form 10-K for the year ended December 31, 2001.

\*\* Incorporated by reference to BioTime's Form 10-K/A-1 for the year ended December 31, 2002.

‡ Incorporated by reference to BioTime's Form 8-K, filed December 30, 2004

‡‡ Incorporated by reference to Post-Effective Amendment No. 3 to Registration Statement on Form S-2 File Number 333-109442, filed with the Securities and Exchange Commission on May 24, 2005

‡‡‡ Incorporated by reference to BioTime's Form 8-K, filed December 20, 2005

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^^^ Filed herewith

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.

BIOTIME, INC.

Date: November 18, 2008

/s/ Michael D. West  
Michael D. West  
Chief Executive Officer

Date: November 18, 2008

/s/ Steven A. Seinberg  
Steven A. Seinberg  
Chief Financial Officer

<u>Exhibit Numbers</u>	<u>Description</u>
3.1	Articles of Incorporation.†
3.2	Amendment of Articles of Incorporation.***
3.3	By-Laws, As Amended.#
4.1	Specimen of Common Share Certificate.+
4.2	Form of Warrant Agreement between BioTime, Inc. and American Stock Transfer & Trust Company++
4.3	Form of Amendment to Warrant Agreement between BioTime, Inc. and American Stock Transfer & Trust Company. +++
4.4	Form of Warrant+++
10.1	Intellectual Property Agreement between BioTime, Inc. and Hal Sternberg.+
10.2	Intellectual Property Agreement between BioTime, Inc. and Harold Waitz.+
10.3	Intellectual Property Agreement between BioTime, Inc. and Judith Segall.+
10.4	Intellectual Property Agreement between BioTime, Inc. and Steven Seinberg.*
10.5	Agreement between CMSI and BioTime Officers Releasing Employment Agreements, Selling Shares, and Transferring Non-Exclusive License.+
10.6	Agreement for Trans Time, Inc. to Exchange CMSI Common Stock for BioTime, Inc. Common Shares.+
10.7	2002 Stock Option Plan, as amended.##
10.8	Exclusive License Agreement between Abbott Laboratories and BioTime, Inc. (Portions of this exhibit have been omitted pursuant to a request for confidential treatment).###
10.9	Modification of Exclusive License Agreement between Abbott Laboratories and BioTime, Inc. (Portions of this exhibit have been omitted pursuant to a request for confidential treatment).^
10.10	Exclusive License Agreement between BioTime, Inc. and CJ Corp.**
10.11	Hextend and PentaLyte Collaboration Agreement between BioTime, Inc. and Summit Pharmaceuticals International Corporation.‡

- 10.12 Lease dated as of May 4, 2005 between BioTime, Inc. and Hollis R& D Associates ‡‡
- 10.13 Addendum to Hextend and PentaLyte Collaboration Agreement Between BioTime Inc. And Summit Pharmaceuticals International Corporation‡‡‡
- 10.14 Amendment to Exclusive License Agreement Between BioTime, Inc. and Hospira, Inc.††
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^^ Incorporated by reference to BioTime's Form 10-Q for the quarter ended June 30, 2008.

^^^ Filed herewith



EXCLUSIVE LICENSE AGREEMENT

This Exclusive License Agreement (“Agreement”) is made and entered into as of the 15th day of August, 2008 (the “Effective Date”), by and between Advanced Cell Technology, Inc., a Delaware corporation with offices located at 11100 Santa Monica Blvd, Suite 850, Los Angeles, CA 90025 (“ACT”), Embryome Sciences, Inc., a California corporation (“LICENSEE”), with offices located at 1301 Harbor Bay Parkway, Suite 100, Alameda, California 94502. ACT and LICENSEE are sometimes hereinafter referred to as the “Parties.”

WITNESSETH

WHEREAS, ACT owns the PATENT RIGHTS, SUPPLEMENTAL PATENT RIGHTS, and KNOW-HOW; and

WHEREAS, LICENSEE desires to obtain an exclusive license from ACT to use the PATENT RIGHTS and KNOW-HOW upon the terms and conditions set forth in this Agreement; and

WHEREAS, ACT is willing to grant such a license to LICENSEE upon the terms and conditions set forth in this Agreement;

NOW, THEREFORE, in consideration of the premises and the mutual covenants contained herein, the Parties hereto agree as follows:

ARTICLE 1 - DEFINITIONS

For the purposes of this Agreement, the following words and phrases shall have the following meanings:

1.1 “AFFILIATE” means any corporation, limited liability company, limited partnership or other entity in control of, controlled by, or under common control with LICENSEE.

1.2 “COMBINATION PRODUCT” means a product that contains a LICENSED PRODUCT component and at least one other component that has independent research, diagnostic or therapeutic utility, could reasonably be sold separately and has economic value of its own.

1.3 “CONFIDENTIAL INFORMATION” means confidential or proprietary information of ACT or LICENSEE relating to the PATENT RIGHTS, KNOW-HOW, LICENSED PROCESSES, LICENSED SERVICES or LICENSED PRODUCTS. CONFIDENTIAL INFORMATION may be in written, graphic, oral or physical form and may include scientific knowledge, know-how, processes, inventions, techniques, formulae, products, business operations, customer requirements, designs, sketches, photographs, drawings, specifications, reports, studies, findings, data, plans or other records, biological materials, and/or software. CONFIDENTIAL INFORMATION shall not include: (a) information which is, or later becomes, generally available to the public through no fault of the recipient; (b) information which is provided to the recipient by an independent third party having no obligation to keep the information secret; (c) information which the recipient can establish by written documentation was previously known to it; or (d) information which the recipient can establish by written

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documentation was independently developed by it without reference to the CONFIDENTIAL INFORMATION.

1.4 "EXCLUDED FIELD" means (a) the research, development, manufacture and selling to third parties of human and non-human animal cells for commercial research use, including small molecule and other drug testing and basic research and (b) the manufacture and selling of human cells for therapeutic and diagnostic use in the treatment of human (i) diabetes, (ii) liver diseases and (iii) retinal diseases and retinal degenerative diseases; but EXCLUDED FIELD shall exclude applications involving the use of cells in the treatment of tumors where the primary use of the cells is the destruction or reduction of tumors and does not involve regeneration of tissue or organ function.

1.5 "KIRIN FIELD" means research, development, manufacture and sale of polyclonal antibodies in non-human mammals, excluding (1) immunoglobulin in the blood of *Bos taurus* or *Bos indicus* and (ii) production of biopharmaceutical agents in milk, including but not limited to proteins, peptides and polypeptides for pharmaceutical, nutraceutical or other use.

1.6 "KNOW-HOW" means all compositions of matter, techniques and data and other know-how and technical information including inventions (whether or not patentable), improvements and developments, practices, methods, concepts, trade secrets, documents, computer data, computer slide illustrations, computer code, apparatus, test data, analytical and quality control data, formulation, manufacturing, patent data or descriptions, development information, drawings, specifications, designs, plans, proposals and technical data and manuals and all other CONFIDENTIAL INFORMATION that is owned or controlled by ACT as of the Effective Date, and that specifically relates to the subject matter described in or claimed by the PATENT RIGHTS.

1.7 "LICENSED PROCESS" means any process or method, the development, use, practice, or sale of which (1) is covered in whole or in part by, or cannot be performed without infringing, a VALID CLAIM of the PATENT RIGHTS in the country in which such LICENSED PROCESS is practiced or sold, or (2) otherwise utilizes the KNOW-HOW.

1.8 "LICENSED PRODUCT" means any product, or part thereof or derived therefrom, the development, manufacture, sale, lease, or use of which (1) is covered in whole or in part by, or cannot be performed without infringing, a VALID CLAIM of the PATENT RIGHTS in the country in which any such product or part thereof is developed, made, used, sold or imported by LICENSEE or (2) otherwise utilizes the KNOW-HOW. By way of illustration but not limitation, the Parties agree that LICENSED PRODUCTS include cells made utilizing the KNOW-HOW or methods covered by VALID CLAIMS described in the patent applications and patents included in the PATENT RIGHTS.

1.9 "LICENSED SERVICES" means any service, the development, use, performance, or sale of which is covered in whole or in part by, or cannot be performed without infringing, a VALID CLAIM of the PATENT RIGHTS in the country in which any such service is so developed, used, performed, sold, offered for sale, imported or exported by LICENSEE or otherwise utilizes the KNOW-HOW.

1.10 "NET SALES" means the invoiced amount on sales by LICENSEE or its Affiliates of LICENSED PRODUCTS, LICENSED SERVICES or LICENSED PROCESSES less (to the extent

applicable and appropriately documented) (i) sales, tariff and import duties, use and other taxes directly imposed with reference to particular sales, (ii) discounts, rebates, and similar credits and chargebacks actually allowed and taken (regardless of whether taken or paid at the time of sale or paid or credited to the buyer at a subsequent date), and (iii) amounts allowed or credited on returns; provided, any such allowed deductions shall be listed on the invoice for the applicable LICENSED PRODUCT, LICENSED PROCESS or LICENSED SERVICE or otherwise documented in the ordinary course of business, and (b) any SUBLICENSE REVENUE.

In the case of Combination Products, Net Sales means the total invoice amount earned on sales of Combination Products by LICENSEE or its Affiliates to any third person or entity, less, to the extent applicable, the deductions set forth above, multiplied by a proration factor that is determined as follows:

(i) If all components of the Combination Product were sold separately during the same or immediately preceding calendar quarter, the proration factor shall be determined by the formula  $[A/(A+B)]$ , where A is the average invoice amount earned on the Licensed Product during such period when sold separately in finished form, and B is the average invoice amount earned on all other active components of the Combination Product during such period when sold separately in finished form; or

(ii) if all components of the Combination Product were not sold separately during the same or immediately preceding calendar quarter, the proration factor shall be determined by the formula  $[C/(C+D)]$ , where C is the average fully absorbed cost of the Licensed Product component during the prior quarter and D is the average fully absorbed cost of all other active components of the Combination Product during the prior quarter.

1.11 "PATENT RIGHTS" means the patents and patent applications identified on Exhibit A attached hereto, and any divisional, continuation or continuation-in-part of those applications, but only to the extent the claims in said applications are directed to subject matter specifically described in the patents and patent applications identified on Exhibit A, as well as any patents issued on these patent applications, and any reissues, reexaminations, extensions and substitutions (or the equivalent) thereof and any foreign counterparts to those patents and patent applications. The parties agree that Exhibit A may be revised from time to time after the EFFECTIVE DATE to reflect changes thereto.

1.12 "SUBLICENSEE" means a sublicensee of the rights granted LICENSEE under this Agreement, as further described in Article 2.

1.13 "SUBLICENSE REVENUE" means consideration that LICENSEE receives for the sublicense of rights that are granted LICENSEE under Article 2, including without limitation license fees, milestone payments, up front fees, success fees, and license maintenance fees, but not capital contributions, loans, or payments for costs incurred in research and development.

1.14 "SUPPLEMENTAL KNOW-HOW" means all compositions of matter, techniques and data and other know-how and technical information including inventions (whether or not patentable), improvements and developments, practices, methods, concepts, trade secrets, documents, computer data, computer slide illustrations, computer code, apparatus, test data, analytical and quality control data, formulation, manufacturing, patent data or descriptions, development information, drawings, specifications, designs, plans, proposals and technical data and manuals and all other CONFIDENTIAL

INFORMATION that is owned or controlled by ACT as of the Effective Date, and that specifically relates to the subject matter described in or claimed by the SUPPLEMENTAL PATENT RIGHTS.

1.1.5 “SUPPLEMENTAL PATENT RIGHTS” means the patents and patent applications identified on Exhibit B attached hereto, and any divisional, continuation or continuation-in-part of those applications, but only to the extent the claims in said applications are directed to subject matter specifically described in the patents and patent applications identified on Exhibit B, as well as any patents issued on these patent applications, and any reissues, reexaminations, extensions and substitutions (or the equivalent) thereof and any foreign counterparts to those patents and patent applications. The parties agree that Exhibit B may be revised from time to time after the EFFECTIVE DATE to reflect changes thereto.

1.16 “VALID CLAIM” means (a) a claim of any issued and unexpired United States or foreign patent included in the PATENT RIGHTS which has not lapsed or become abandoned or been declared invalid or unenforceable by a court of competent jurisdiction or an administrative agency from which no appeal can be or has been taken within the time allowed for such appeal and which has not been disclaimed or admitted to be invalid or unenforceable through reissue, disclaimer or otherwise, or (b) to the extent rights are granted by a governmental patent authority thereunder (i.e., to the extent that the owner would be able to enforce a right to a patent royalty thereunder under applicable patent law), a claim of a pending patent application included in the PATENT RIGHTS.

For purposes of this Agreement, except as otherwise expressly provided herein or unless the context otherwise requires: (a) the use herein of the plural shall include the single and *vice versa* and the use of the masculine shall include the feminine; (b) unless otherwise set forth herein, the use of the term “including” or “includes” means “including [includes] but [is] not limited to”; and (c) the words “herein,” “hereof,” “hereunder” and other words of similar import refer to this Agreement as a whole and not to any particular provision. Additional terms may be defined throughout this Agreement.

## ARTICLE 2 – LICENSE GRANT

### 2.1 Grant of Rights.

(a) ACT hereby grants to LICENSEE, and LICENSEE accepts, subject to the terms and conditions of this Agreement, a royalty-bearing, worldwide, exclusive license, with the right to sublicense, to use the PATENT RIGHTS and KNOW-HOW to (i) research, develop, make, have made, use, sell, have sold, offer for sale, have offered for sale, import, have imported, export and have exported LICENSED PRODUCTS, (ii) research, develop, use, practice, sell, have sold, offer for sale, have offered for sale, import, have imported, export and have exported LICENSED PROCESSES, and (iii) develop, use, perform, sell, have sold, offer for sale, have offered for sale, import, have imported, export and have exported LICENSED SERVICES.

(b) ACT hereby grants to LICENSEE, and LICENSEE accepts, subject to the terms and conditions of this Agreement, a royalty-free, fully paid-up, worldwide, non-exclusive license, to use the SUPPLEMENTAL PATENT RIGHTS and SUPPLEMENTAL KNOW-HOW for the purposes

described in paragraph (a) of this Section and/or the purposes described in the Kirin Sublicense Agreement (as defined below), but only in conjunction with the use of the PATENT RIGHTS and/or the patents and patent rights described in the Kirin License Agreement.

(c) The license granted under this Section 2.1 shall exclude LICENSED PRODUCTS, LICENSED PROCESSES, and LICENSED SERVICES within the EXCLUDED FIELD so long as that certain Exclusive License Agreement, dated May 14, 2004, as amended by a First Amendment to Exclusive License Agreement, dated August 25, 2005; between ACT and Lifeline Cell Technology, LLC (formerly PacGen Cellco, LLC) remains in effect and Lifeline Cell Technology, LLC retains an exclusive license of PATENT RIGHTS under that agreement within the EXCLUDED FIELD.

(d) Notwithstanding the preceding provisions of this Section, the license granted to LICENSEE shall be non-exclusive within the KIRIN FIELD so long as that certain Non-Exclusive License Agreement, dated May 9, 2006, between ACT and Kirin Beer Kabushiki Kaisha, Aurox, LLC, Hematech, LLC, and Kirin SD, Inc. remains in effect and the licensees under that agreement retain a non-exclusive license of PATENT RIGHTS under that agreement in the KIRIN FIELD.

2.2 Sublicense Rights. LICENSEE shall have the right to grant sublicenses of its rights under Section 2.1 without the consent or approval of ACT; provided however, that LICENSEE agrees to provide ACT with (a) a draft copy of any sublicense agreement to ACT at least thirty (30) days before execution to allow ACT to comment on the terms of the sublicense if ACT chooses to comment; and (b) a fully executed copy of all sublicense agreements within thirty (30) days after execution; and provided, further, that SUPPLEMENTAL PATENT RIGHTS and SUPPLEMENTAL KNOW-HOW may be sublicensed only to LICENSEE'S SUBSIDIARIES and AFFILIATES in conjunction with a sublicense of the PATENT RIGHTS.

2.3 Knowledge Transfer. Within ten (10) days of the Effective Date, ACT shall provide, deliver, and transfer to LICENSEE all information and data relating to the PATENT RIGHTS, SUPPLEMENTAL PATENT RIGHTS, KNOW-HOW and SUPPLEMENTAL KNOW-HOW as may be reasonably necessary to allow LICENSEE to exploit the licenses granted hereunder. Such transfer shall be made free and clear of all liens, security interests, encumbrances, and claims of any kind by any third party. ACT shall bear all costs of so delivering the KNOW-HOW and SUPPLEMENTAL KNOW-HOW to LICENSEE. ACT shall not retain any copies (in any format or media) of the KNOW-HOW.

### ARTICLE 3 – SUBLICENSE OF CERTAIN PATENTS AND PATENT APPLICATIONS

3.1 Concurrent with the execution and delivery of this Agreement, ACT shall execute and deliver to LICENSEE an Exclusive Sublicense Agreement (the "Kirin Sublicense Agreement"), in form and substance acceptable to LICENSEE, granting to LICENSEE a royalty-bearing, exclusive, worldwide sublicense to ACT's rights to use certain patents and related patent rights under that certain Exclusive License Agreement, effective as of May 9, 2006, among ACT, Kirin Beer Kabushiki Kaisha, Aurox, LLC, Hematech, LLC, and Kirin SD, Inc (the "Kirin License Agreement"). LICENSEE's obligations under this Agreement are contingent upon ACT executing and delivering to LICENSEE the Kirin Sublicense Agreement.

ARTICLE 4 – COMMERCIALIZATION OBLIGATIONS

4.1 LICENSEE intends to use, or to cause its Sublicensees to use, commercially reasonable and diligent efforts to bring one or more LICENSED PRODUCTS, LICENSED PROCESSES and LICENSED SERVICES to market through an active and diligent program for exploitation of the PATENT RIGHTS and KNOW-HOW and to continue active, diligent marketing efforts for one or more LICENSED PRODUCTS, LICENSED PROCESSES and LICENSED SERVICES throughout the life of this Agreement. LICENSEE makes no representation, guaranty, or warranty that it or its Sublicensees will be successful in developing or bringing to market any LICENSED PRODUCT, LICENSED PROCESS or LICENSED SERVICES.

ARTICLE 5 - CONSIDERATION

5.1 Initial License Fee. In partial consideration of the rights and licenses granted to LICENSEE by ACT in this Agreement, LICENSEE shall pay to ACT on the Effective Date a license fee equal to Two Hundred Thousand Dollars (U.S.) (\$200,000) (the "License Fee"). The License Fee is not refundable and is not creditable against other payments due to ACT under this Agreement. The License Fee shall be paid within two business days after the Effective Date.

5.2 Royalties and other Consideration.

(a) As additional consideration of the license granted to LICENSEE from ACT in Article 2 of this Agreement, LICENSEE shall pay to ACT a royalty equal to (i) 5% of the Net Sales received by LICENSEE and its AFFILIATES for all LICENSED PRODUCTS, LICENSED PROCESS or LICENSED SERVICE sold, performed, or leased by LICENSEE or any AFFILIATE, and (ii) 20% of all SUBLICENSE REVENUE received by LICENSEE and its AFFILIATES. The obligation of LICENSEE to pay royalties shall terminate (a) with respect to NET SALES and SUBLICENSE REVENUE arising in any country concurrently with the expiration or termination of the last applicable VALID CLAIM within the PATENT RIGHTS in such country in which the LICENSED PRODUCT, LICENSED PROCESS or LICENSED SERVICE is, (as applicable), performed, sold, leased, or manufactured, or in which the PATENT RIGHTS are licensed, and (b) in any and all cases when royalty payments to ACT by LICENSEE total Six Hundred Thousand Dollars (U.S.) (\$600,000.00); provided, however, that such \$600,000 of royalties shall be reduced to \$200,000 if LICENSEE, at LICENSEE'S option, pays ACT \$200,000 in cash within thirty (30) days after the execution of this Agreement in addition to the License fee payable under Section 5.1 (such that the License Fee, additional \$200,000 payment, and potential future royalties will total \$600,000).

(b) No multiple royalties shall be payable on the basis that any LICENSED PRODUCT, LICENSED PROCESS or LICENSED SERVICE, its manufacture, use, lease, sale or performance are or shall be covered by (a) more than one patent or patent application within the PATENT RIGHTS, or (b) any other patent or know how under a license or sublicense from ACT. In the case of the use of patents or know how licensed or sublicensed by ACT under other agreements, LICENSEE and ACT's other licensees or sublicensees shall have the right to credit against the royalties owing to ACT, under this Agreement and under such other license or sublicense agreements, any royalty payments received by ACT with respect to the sale or lease of any product or performance of any service (regardless of whether LICENSEE or another licensee or sublicensee of ACT patents or know how pays the royalty), such that in no event shall the total of royalty payments that are due to ACT in any royalty

period under this Agreement and under such other license or sublicense agreements exceed the highest applicable royalty rate among this Agreement and such other license or sublicense agreements. By way of example only, if a product is produced by LICENSEE (alone or with a third party) and that product uses PATENT RIGHTS under this Agreement and patents licensed under a license or sublicense agreement between ACT and LICENSEE (or between ACT and the third party with whom LICENSEE is producing the product), (i) only one royalty would be paid to ACT on sales of the product, (ii) the royalty rate would be the higher of the royalty rate applicable under this Agreement or under ACT's other license or sublicense agreement with LICENSEE or the third party, and (iii) the royalty payment (whether paid by LICENSEE or by the third party) will be credited toward royalties payable under this Agreement and under the other ACT license or sublicense agreement with LICENSEE or the third party for the sale of the product.

5.3 Payment Method. All payments due under this Agreement shall be paid to ACT in Los Angeles, California, U.S.A., and shall be made in United States currency without deduction for taxes, assessments, exchanges, collection or other charges of any kind. Conversion of foreign currency to U.S. dollars shall be made at the conversion rate reported in The Wall Street Journal on the last working day of the calendar quarter to which the payment relates.

5.4 Late Fee. LICENSEE shall pay ACT interest on any overdue amounts at the rate of one percent (1%) per month (twelve percent (12%) per annum), from the date when such payment should have been made.

5.5 Credit and Right of Setoff. LICENSEE shall receive a credit toward, and shall have a right of setoff against, the payment of royalties due under this Agreement, on a dollar for dollar basis, for any and all payments made by LICENSEE under the Exclusive Sublicense Agreement to cure or avoid any default by ACT under the Kirin License Agreement.

#### ARTICLE 6 - REPORTS AND RECORDS

6.1 LICENSEE shall maintain complete and accurate records of LICENSED PRODUCTS, LICENSED SERVICES and LICENSED PROCESSES that are sold, performed, or, leased by LICENSEE or its AFFILIATES under this Agreement, and all SUBLICENSE REVENUE received by LICENSEE and its AFFILIATES. LICENSEE shall keep, and shall cause its AFFILIATES and SUBLICENSEES to keep, full, true and accurate books of account containing all particulars that may be necessary for the purpose of showing the amounts payable to ACT hereunder and LICENSEE's compliance with the terms and conditions of this Agreement. Said books of account shall be kept at LICENSEE's principal place of business or at such other location as may be agreed upon by the parties. Said books and the supporting data shall be open upon reasonable advance notice (and no more frequently than once per calendar year) for three (3) years following the end of the calendar year to which they pertain, to the inspection of ACT or its agents for the purpose of verifying LICENSEE's royalty statement or compliance in other respects with this Agreement. If any such audit determines that the reported payments to ACT were less than ninety percent (95%) of the actual amount due to ACT for the period in question, LICENSEE shall bear the cost of such audit (without limiting ACT's other remedies with respect thereto).

6.2 After the first commercial sale of a LICENSED PRODUCT, LICENSED SERVICE or

LICENSED PROCESS by LICENSEE any AFFILIATE, or any SUBLICENSEE, or LICENSEE'S receipt of any SUBLICENSE REVENUE, LICENSEE, within forty-five (45) days after March 31, June 30, September 30 and December 31, of each year, shall deliver to ACT a true and accurate report of all NET SALES and SUBLICENSE REVENUE during the preceding three-month period under this Agreement as shall be pertinent to a royalty accounting hereunder. Each such report shall include at least the following:

- (a) number(s) and type(s) of LICENSED PRODUCTS, LICENSED PROCESSES and LICENSED SERVICES sold, leased, or performed by LICENSEE and/or its AFFILIATES;
- (b) total billings and payments received for LICENSED PRODUCTS, LICENSED PROCESSES and LICENSED SERVICES performed, sold, or leased by LICENSEE and its AFFILIATES, and/or SUBLICENSE REVENUE received from its SUBLICENSEES; and
- (c) deductions applicable as provided in Section 1.10;

6.3 With each such report submitted, LICENSEE shall pay to ACT the royalties and other payments due and payable under this Agreement. If no royalties or other payments shall be due, LICENSEE shall so report.

6.4 LICENSEE's reporting obligations hereunder shall terminate when LICENSEE'S obligation to pay royalties to ACT terminates.

#### ARTICLE 7 - PATENT RIGHTS AND SUPPLEMENTAL PATENT RIGHTS

7.1 Responsibility for the PATENT RIGHTS. Subject to the terms of this Agreement, LICENSEE shall be primarily responsible after the Effective Date for the preparation, filing, prosecution and maintenance of the PATENT RIGHTS listed on Exhibit A. The costs of such filing, prosecution and maintenance (including without limitation the payment of all government fees in any given country required to maintain the PATENT RIGHTS) after the Effective Date shall be borne by LICENSEE. LICENSEE agrees to use reasonable commercial efforts to prosecute U.S. patents covering the inventions disclosed in the patent applications included in the PATENT RIGHTS. LICENSEE shall not be obligated to reimburse ACT for any costs or expenses incurred by ACT prior to the Effective Date with respect to the preparation, filing, and prosecution of any patent applications.

7.2 ACT's Participation. ACT's patent counsel shall be given a reasonable opportunity to comment, at ACT's expense, on all proposed patent filings and responses to patent office actions or other patent office communications that may affect the PATENT RIGHTS, and LICENSEE will not unreasonably refuse to accept any suggestions of ACT's patent counsel; provided, however, that LICENSEE will have the final decision on the incorporation of any comments of ACT's patent counsel.

7.3 Abandonment. LICENSEE will not allow any patent or patent application within the PATENT RIGHTS to become expired or abandoned, or fail to diligently pursue patent protection for any invention within the PATENT RIGHTS, without giving (a) written notice to ACT at least thirty (30)



business days prior to the next due date for any required communication, response to office action, filing, or payment, failure to meet which would result in expiration or abandonment, including but not limited to provisional abandonment, of the patent or patent application, and (b) ACT the right to assume responsibility for such patent or patent application. If ACT so elects, (i) LICENSEE will execute such documents and otherwise perform such acts and make all filings as may be reasonably required to permit ACT or its designees to prosecute and maintain such patent or application in such jurisdiction(s) and transact all matters connected therewith (including, as necessary, appointing ACT's patent counsel as associate attorneys of record, and changing address of the patent attorney of record with the appropriate patent authorities), (ii) ACT will thereafter assume control thereof and all expenses (arising thereafter) for such prosecution and maintenance by ACT, and (iii) LICENSEE's rights and the licenses granted to LICENSEE with respect to all such patents and patent applications shall automatically terminate upon ACT's assumption of control thereof.

7.4 Enforcement of the PATENT RIGHTS. The Parties agree to notify each other in writing of any actual or threatened infringement by a third party of the PATENT RIGHTS or of any third-party claim of invalidity or unenforceability of the PATENT RIGHTS, or of any interference or other proceeding affecting the PATENT RIGHTS. LICENSEE shall have the first right to prosecute and defend such claims under its sole control and at its sole expense. If LICENSEE does proceed with such prosecution or defense, ACT shall provide reasonable assistance to LICENSEE at LICENSEE's request, provided LICENSEE pays ACT for the reasonable out-of-pocket costs incurred by ACT in providing such assistance. Any recovery obtained in an action under this Section 7.4 shall be distributed as follows, in this order: (i) LICENSEE shall be reimbursed for any expenses incurred in the action; and (ii) LICENSEE shall receive the remaining recovery, less a reasonable approximation of the royalties that LICENSEE would have paid to ACT if LICENSEE had received the amount awarded as ordinary damages as Net Sales of LICENSED PRODUCTS sold by LICENSEE.

7.5 ACT Rights to Enforce. In the event that LICENSEE fails to initiate an infringement action within a reasonable time (but no more than one hundred eighty (180) days) after LICENSEE becomes aware of the basis for such action (e.g., the actual or threatened infringement) or fails to answer a declaratory judgment action or interference proceeding within a reasonable time (but no more than ninety (90) days) after LICENSEE receives or becomes aware of such infringement or action or proceeding, ACT shall have the right, after notifying LICENSEE in writing, to prosecute such infringement or answer such declaratory judgment action or interference proceeding, under its sole control and at its sole expense. If ACT does proceed with such prosecution or defense, LICENSEE shall provide reasonable assistance to ACT at ACT's request, provided ACT pays LICENSEE for its reasonable out-of-pocket costs incurred in such assistance. Any recovery obtained in an action under this Section 7.5 shall be distributed as follows, in this order: (i) ACT shall be reimbursed for any expenses it incurred in the action; (ii) as to ordinary damages, LICENSEE shall receive an amount equal to lost profits or a reasonable royalty on the infringing sales (whichever measure the court applied), less a reasonable approximation of the royalties that LICENSEE would have paid to ACT if LICENSEE had received such amount as Net Sales of LICENSED PRODUCTS sold by LICENSEE; and (iii) as to any additional damages, 100% to ACT, unless LICENSEE joins ACT in the prosecution at its own expense at which point the parties will share equally in any award.

7.6. Cooperation. ACT and LICENSEE agree to reasonably cooperate in connection with the preparation, filing, prosecution, and maintenance of the PATENT RIGHTS. Cooperation includes,

without limitation, (a) promptly executing all papers and instruments or requiring employees of ACT or LICENSEE to execute papers and instruments as reasonably appropriate to enable LICENSEE to file, prosecute, and maintain PATENT RIGHTS in any country; and (b) promptly informing LICENSEE of matters that may affect preparation, filing, prosecution, or maintenance of PATENT RIGHTS (such as becoming aware of an additional inventor who is not listed as an inventor in a patent application). Additionally, in the event either party exercises its rights hereunder to proceed with any prosecution of infringement or defense of the PATENT RIGHTS, such party shall consult with the other party regarding the course of such proceedings and shall not enter into any settlement, consent judgment, or other voluntary final disposition of any infringement action that admits the invalidity or unenforceability of any PATENT RIGHTS or that would adversely affect the rights of the other party without the prior written consent of the other party, which consent may not be unreasonably withheld, conditioned or delayed. Without limiting the generality of the provisions of this Section 7.6, concurrently with the execution and delivery of this Agreement ACT shall execute, acknowledge, and deliver to LICENSEE the documents attached to this Agreement as Exhibit C.

7.7 New Patents, Inventions, and Discoveries. LICENSEE shall have the right to file and prosecute new patent applications (and to obtain new patents) covering LICENSED PRODUCTS, LICENSED PROCESSES, AND LICENSED SERVICES, and any other subject matter, with respect to any KNOW-HOW and any other technology, invention, or discovery made by LICENSEE or any of its Affiliates or Sublicensees using PATENT RIGHTS, SUPPLEMENTAL PATENT RIGHTS (as permitted by this Agreement), KNOW-HOW, and SUPPLEMENTAL KNOW-HOW. ACT shall acquire no rights with respect to such new patents, inventions, discoveries, or technology not included within the PATENT RIGHTS, SUPPLEMENTAL PATENT RIGHTS, KNOW-HOW and SUPPLEMENTAL KNOW-HOW licensed to LICENSEE by ACT.

7.8 Responsibility for the SUPPLEMENTAL PATENT RIGHTS. Subject to the terms of this Agreement, ACT shall be primarily responsible after the Effective Date for the preparation, filing, prosecution and maintenance of the SUPPLEMENTAL PATENT RIGHTS listed on Exhibit B. The costs of such filing, prosecution and maintenance (including without limitation the payment of all government fees in any given country required to maintain the SUPPLEMENTAL PATENT RIGHTS) after the Effective Date shall be borne by ACT. ACT agrees to use reasonable commercial efforts to prosecute U.S. patents covering the inventions disclosed in the patent applications included in the SUPPLEMENTAL PATENT RIGHTS. LICENSEE shall not be obligated to reimburse ACT for any costs or expenses incurred by ACT prior to the Effective Date with respect to the preparation, filing, and prosecution of any patent applications.

7.9 Abandonment of SUPPLEMENTAL PATENT RIGHTS. ACT will not allow any patent or patent application within the SUPPLEMENTAL PATENT RIGHTS to become expired or abandoned, or fail to diligently pursue patent protection for any invention within the SUPPLEMENTAL PATENT RIGHTS, without giving (a) written notice to LICENSEE at least thirty (30) business days prior to the next due date for any required communication, response to office action, filing, or payment, failure to meet which would result in expiration or abandonment, including but not limited to provisional abandonment, of the patent or patent application, and (b) LICENSEE the right to assume responsibility for such patent or patent application. If LICENSEE so elects, (i) ACT will execute such documents and otherwise perform such acts and make all filings as may be reasonably required to permit LICENSEE or its designees to prosecute and maintain such patent or application in such jurisdiction(s) and transact all

matters connected therewith (including, as necessary, appointing LICENSEE's patent counsel as associate attorneys of record, and changing address of the patent attorney of record with the appropriate patent authorities), (ii) LICENSEE will thereafter assume control thereof and all expenses (arising thereafter) for such prosecution and maintenance by LICENSEE, and (iii) the licenses granted to LICENSEE with respect to all such patents and patent applications shall automatically become exclusive licenses (except as provided in paragraphs (c) and (d) of Section 2.1) with the right to sublicense without the limitation under Section 2.2, for all uses upon LICENSEE's assumption of control thereof. In order to facilitate LICENSEE exercising its rights under this Section 7.9, ACT shall, promptly upon LICENSEE's request, execute, acknowledge, and deliver to LICENSEE the a power of attorney in the form of Exhibit C covering the SUPPLEMENTAL PATENT RIGHTS.

7.10 Enforcement of the SUPPLEMENTAL PATENT RIGHTS.

(a) The Parties agree to notify each other in writing of any actual or threatened infringement by a third party of the SUPPLEMENTAL PATENT RIGHTS or of any third-party claim of invalidity or unenforceability of the SUPPLEMENTAL PATENT RIGHTS, or of any interference or other proceeding affecting the SUPPLEMENTAL PATENT RIGHTS. ACT shall prosecute and defend such claims under its sole control and at its sole discretion and expense. If LICENSEE shall provide reasonable assistance to ACT at ACT's request, provided ACT pays LICENSEE for the reasonable out-of-pockets costs incurred by LICENSEE in providing such assistance. Any recovery obtained in an action under this Section 7.10 shall be distributed as follows, in this order: (i) LICENSEE shall be reimbursed for any expenses it incurred in the action; and (ii) ACT shall receive the remaining recovery.

(b) In the event that ACT fails to initiate an infringement action described in paragraph (a) of this Section 7.10 within a reasonable time (but no more than one hundred eighty (180) days) after ACT becomes aware of the basis for such action (e.g., the actual or threatened infringement) or fails to answer a declaratory judgment action or interference proceeding within a reasonable time (but no more than ninety (90) days) after ACT receives or becomes aware of such infringement or action or proceeding, LICENSEE shall have the right, but not the obligation, after notifying ACT in writing, to prosecute such infringement or answer such declaratory judgment action or interference proceeding, under its sole control and at its sole expense. If LICENSEE does proceed with such prosecution or defense, ACT shall provide reasonable assistance to LICENSEE at LICENSEE's request, provided LICENSEE pays ACT for its reasonable out-of-pockets costs incurred in such assistance. Any recovery obtained in an action under this Section 7.5 shall be distributed as follows, in this order: (i) ACT shall be reimbursed for any expenses it incurred in the action; and (ii) LICENSEE shall receive the remaining recovery.

ARTICLE 8 – INDEMNIFICATION,  
LIMITATION OF LIABILITY AND INSURANCE

8.1 LICENSEE shall at all times during the term of this Agreement and thereafter, indemnify, defend and hold harmless ACT and its affiliates, successors, assigns, agents, officers, directors, shareholders and employees (each, an "Indemnified Party"), at LICENSEE's sole cost and expense, against all liabilities of any kind whatsoever, including legal expenses and reasonable attorneys' fees, arising out of the death of or injury to any person or persons or out of any damage to property resulting from the production, manufacture, sale, use, lease, performance, consumption or advertisement

of the LICENSED PRODUCTS, LICENSED PROCESSES or LICENSED SERVICES or arising from any obligation, act or omission, or from a breach of any representation or warranty of LICENSEE hereunder, excepting only claims that result from (a) the willful misconduct or gross negligence of ACT, (b) any material breach by ACT of its representations and warranties under this Agreement, and (c) claims alleging that the use of any of the PATENT RIGHTS, SUPPLEMENTAL PATENT RIGHTS, KNOW-HOW, or SUPPLEMENTAL KNOW-HOW infringe upon any patent, trade secret, or moral right of any third party. The indemnification obligations set forth herein are subject to the following conditions: (i) the Indemnified Party shall notify LICENSEE in writing promptly upon learning of any claim or suit for which indemnification is sought; (ii) LICENSEE shall have control of the defense or settlement, provided that the Indemnified Party shall have the right (but not the obligation) to participate in such defense or settlement with counsel at its selection and at its sole expense; and (iii) the Indemnified Party shall reasonably cooperate with the defense, at LICENSEE's expense.

8.2 EXCEPT AS OTHERWISE EXPRESSLY SET FORTH IN THIS AGREEMENT, ACT, ITS DIRECTORS, OFFICERS, AGENTS, SHAREHOLDERS, EMPLOYEES, AND AFFILIATES MAKE NO REPRESENTATIONS AND EXTEND NO WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, VALIDITY OF PATENT RIGHTS CLAIMS, ISSUED OR PENDING, AND THE ABSENCE OF LATENT OR OTHER DEFECTS, WHETHER OR NOT DISCOVERABLE. NOTHING IN THIS AGREEMENT SHALL BE CONSTRUED AS A REPRESENTATION MADE OR WARRANTY GIVEN BY ACT THAT THE PRACTICE BY LICENSEE OF THE LICENSE GRANTED HEREUNDER SHALL NOT INFRINGE THE PATENT RIGHTS OF ANY THIRD PARTY. IN NO EVENT SHALL ACT, ITS DIRECTORS, OFFICERS, AGENTS, SHAREHOLDERS, EMPLOYEES AND AFFILIATES BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND, INCLUDING ECONOMIC DAMAGE OR INJURY TO PROPERTY AND LOST PROFITS, REGARDLESS OF WHETHER ACT SHALL BE ADVISED, SHALL HAVE OTHER REASON TO KNOW, OR IN FACT SHALL KNOW OF THE POSSIBILITY OF SUCH DAMAGES.

8.3 LICENSEE agrees to maintain insurance or self-insurance that is reasonably adequate to fulfill any potential obligation to the indemnified parties. LICENSEE shall continue to maintain such insurance or self-insurance during the term of this Agreement and after the expiration or termination of this Agreement for a period of five (5) years.

#### ARTICLE 9 – TERMINATION

9.1 This Agreement shall be effective on the Effective Date and shall extend twenty (20) years or until the expiration of the last to expire of the PATENT RIGHTS and the SUPPLEMENTAL PATENT RIGHTS, whichever is later, unless sooner terminated as provided in this Article 9.

9.2 ACT may terminate this Agreement and the rights, privileges and license granted hereunder by written notice upon a breach or default of this Agreement by LICENSEE, as follows:

- (i) non-payment of any amounts due which is not cured within thirty (30) days of receipt of written notice of such non-payment wherein said notice is delivered by registered mail; or

- (ii) breach of any obligation which is not cured within thirty (30) days of a written request to remedy such breach wherein said request is delivered by registered mail, or if the breach cannot be cured within said thirty (30) day period, failure of LICENSEE within said thirty (30) day period to proceed with reasonable promptness thereafter to cure the breach.

Such termination shall become automatically effective unless LICENSEE shall have cured any such material breach or default prior to the expiration of the applicable cure period.

9.3 LICENSEE shall have the right to terminate this Agreement at any time on three (3) months' prior notice to ACT, and upon payment of all amounts due ACT through the effective date of the termination.

9.4 Upon termination of this Agreement for any reason, nothing herein shall be construed to release either party from any obligation that matured prior to the effective date of such termination; and Sections 6.1, Article 8, Article 10, and Article 12, and any other Sections or provisions which by their nature are intended to survive termination, shall survive any such termination.

ARTICLE 10 - CONFIDENTIALITY

10.1 During the course of this Agreement, ACT and LICENSEE may provide each other with CONFIDENTIAL INFORMATION. CONFIDENTIAL INFORMATION may be disclosed in oral, visual or written form, and includes such information that is designated in writing as such by the discloser at the time of disclosure, orally disclosed information that is designated in writing as confidential within 30 days after such oral disclosure, or information which, under all of the given circumstances ought reasonably be treated as CONFIDENTIAL INFORMATION of the disclosing party. ACT and LICENSEE each intend to maintain the confidential or trade secret status of their CONFIDENTIAL INFORMATION. Each shall exercise reasonable care to protect the CONFIDENTIAL INFORMATION of the other from disclosure to third parties; no such disclosure shall be made without the other's written permission. Upon termination or expiration of this Agreement, ACT and/or LICENSEE shall comply with the other's written request to return all CONFIDENTIAL INFORMATION that is in written or tangible form. Except as expressly provided herein, neither ACT nor LICENSEE is granted any license to use the other's CONFIDENTIAL INFORMATION. The obligations of ACT and LICENSEE under this Article 10 shall survive any expiration or termination of this Agreement.

10.2 The parties agree that the specific terms (but not the overall existence) of this Agreement shall be considered CONFIDENTIAL INFORMATION; provided, however, that the parties may disclose the terms of this Agreement to investors or potential investors, potential business partners, potential Sublicensees and assignees, potential co-developers, manufacturers, marketers, or distributors of any LICENSED PRODUCT, LICENSED PROCESS, or LICENSED SERVICE, and in any prospectus, offering, memorandum, or other document or filing required by applicable securities laws or other applicable law or regulation. The parties may also disclose CONFIDENTIAL INFORMATION that is required to be disclosed to comply with applicable law or court order, provided that the recipient gives reasonable prior written notice of the required disclosure to the discloser and reasonably cooperates with the discloser's efforts to prevent such disclosure.

ARTICLE 11 - PAYMENTS, NOTICES, AND OTHER COMMUNICATIONS

Any payment, notice or other communication required to be given to any party will be deemed to have been properly given and to be effective (a) on the date of delivery if delivered by hand, recognized national next business day delivery service, confirmed facsimile transmission, or confirmed electronic mail, or five (5) days after mailing by registered or certified mail, postage prepaid, return receipt requested, to the respective addresses given below, or to another address as it shall designate by written notice given to the other party in the manner provided in this Section.

In the case of ACT:                   Advanced Cell Technology, Inc.  
11100 Santa Monica Blvd, Suite 850  
Los Angeles, CA 90025  
Attention: William M. Caldwell, IV

With a copy to:                   Pierce Atwood LLP  
One Monument Square  
Portland, ME 0401  
Attention: William L. Worden, Esq.

In the case of LICENSEE           Embryome Sciences, Inc.  
1301 Harbor Bay Parkway, Suite 100  
Alameda, California 94502  
Attention: Michael D. West

With a copy to:                   Richard S. Soroko, Esq.  
Lippenberger, Thompson, Welch, Soroko & Gilbert LLP  
201 Tamal Vista Blvd.  
Corte Madera, California 94925

ARTICLE 12 - REPRESENTATIONS AND WARRANTIES

12.1       LICENSEE represents and warrants that it has full corporate power and authority to enter into this Agreement, that this Agreement constitutes the binding legal obligation of LICENSEE, enforceable in accordance with its terms, and that the execution and performance of this Agreement by LICENSEE will not violate, contravene or conflict with any other agreement to which LICENSEE is a party or by which it is bound or with any law, rule or regulation applicable to LICENSEE, and that any permits, consents or approvals necessary or appropriate for LICENSEE to enter into this Agreement have been obtained.

12.2       LICENSEE is an entity duly incorporated or otherwise organized, validly existing and in good standing under the laws of the jurisdiction of its incorporation or organization, with the requisite power and authority to own and use its properties and assets and to carry on its business as currently conducted.

12.3 ACT represents and warrants that (a) it owns the PATENT RIGHTS, SUPPLEMENTAL PATENT RIGHTS, KNOW-HOW, and SUPPLEMENTAL KNOW-HOW, (b) it has the full legal right and power to grant the licenses granted hereunder, (c) that this Agreement constitutes the binding legal obligation of ACT, enforceable in accordance with its terms, (d) the execution, delivery, and performance of this Agreement by ACT will not violate, contravene or conflict with any other agreement to which ACT is a party or by which it is bound or with any law, rule or regulation applicable to ACT, and (e) any permits, consents or approvals necessary or appropriate for ACT to enter into this Agreement have been obtained.

12.4 ACT represents and warrants that, to the best of its knowledge, the use of the PATENT RIGHTS, SUPPLEMENTAL PATENT RIGHTS, KNOW-HOW and SUPPLEMENTAL KNOW-HOW by LICENSEE or any Sublicensee for any purposes contemplated or permitted by this Agreement, will not infringe in any way any claim under any patent held by any third party.

12.5 ACT represents and warrant that the use of the PATENT RIGHTS, SUPPLEMENTAL PATENT RIGHTS, KNOW-HOW, and SUPPLEMENTAL KNOW-HOW by LICENSEE or any Sublicensee for any purposes contemplated or permitted by this Agreement, will not infringe in any way any claim under any patent held by ACT or under any patent that may issue from any ACT patent application now pending, or under any patent that ACT may in the future obtain, or any other intellectual property rights of ACT.

12.6 ACT further represents, warrants and agrees, that it shall not make any claim or demand, or commence any lawsuit or other proceeding, alleging that use of the PATENT RIGHTS, SUPPLEMENTAL PATENT RIGHTS, KNOW-HOW, and SUPPLEMENTAL KNOW-HOW by LICENSEE or any of LICENSEE'S AFFILIATES or any Sublicensees, or by any third party participating with or providing services for LICENSEE or any of LICENSEE'S AFFILIATES or Sublicensees, for any purpose contemplated or permitted by this Agreement infringes in any way any claim under any patent held by ACT or under any patent that may issue from any ACT patent application now pending, or under any patent that ACT may in the future obtain, or any other intellectual property rights of ACT. The provisions of this Section 12.6 shall pertain as well to all subsidiaries of ACT and all patents and patent applications of ACT subsidiaries. ACT and its subsidiaries shall cause the provisions of this Section 12.6, as they pertain to refraining from asserting claims and demands or commencing lawsuits and proceedings, to be including in all licenses and assignments of ACT's patents and patent applications.

12.7 ACT represents and warrants that all of the patent applications of ACT and its subsidiaries pertaining to the processes or technology described or related to processes and technology identified on Exhibit A are listed on Exhibit A, and that all of the patent applications of ACT and its subsidiaries pertaining to the processes or technology described or related to processes and technology identified on Exhibit B are listed on Exhibit B.

12.8 This Article 12 shall survive expiration or termination of this Agreement.

#### ARTICLE 13 - MISCELLANEOUS PROVISIONS

13.1 Nothing herein shall be deemed to constitute either party as the agent or representative of the other party.

13.2 To the extent commercially feasible, and consistent with prevailing business practices, all products manufactured or sold under this Agreement will be marked with the number of each issued patent that applies to such product.

13.3 This Agreement shall be construed, governed, interpreted and applied in accordance with the laws of California, without regard to principles of conflicts of law thereof, except that questions affecting the construction and effect of any patent shall be determined by the law of the country in which the patent was granted.

13.4 The parties hereto acknowledge that this Agreement (including the Exhibits hereto) sets forth the entire Agreement and understanding of the parties hereto as to the subject matter hereof, and shall not be subject to any change or modification except by the execution of a written instrument subscribed to by the parties hereto.

13.5 The provisions of this Agreement are severable, and in the event that any provisions of this Agreement shall be determined to be invalid or unenforceable under any controlling body of the law, such invalidity or unenforceability shall not in any way affect the validity or enforceability of the remaining provisions hereof.

13.6 The failure of either party to assert a right hereunder or to insist upon compliance with any term or condition of this Agreement shall not constitute a waiver of that right or excuse a similar subsequent failure to perform any such term or condition by the other party.

13.7 Licenses of Intellectual Property; Bankruptcy Code. The parties agree that the licenses granted to LICENSEE to use PATENT RIGHTS, SUPPLEMENTAL PATENT RIGHTS, KNOW-HOW and SUPPLEMENTAL KNOW-HOW constitute licenses of “intellectual property” as defined in the United States Bankruptcy Code (the “Bankruptcy Code”) and as used in Section 365(n) of the Bankruptcy Code. The Parties agree that the KNOW-HOW includes trade secrets. The parties also agree that the payments of royalties on Net Sales and SUBLICENSE REVENUE required to be paid by LICENSEE to ACT under this Agreement constitute “royalties” under Section 365(n) of the Bankruptcy Code.

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IN WITNESS WHEREOF, the parties have duly executed this Agreement as of the Effective Date set forth above.

ADVANCED CELL TECHNOLOGY, INC.

By: /s/ William M. Caldwell, IV  
Printed Name: William M. Caldwell, IV  
Title: Chairman & CEO

By: /s/ William M. Caldwell, IV  
Printed Name: William M. Caldwell, IV  
Title: Secretary

EMBRYOME SCIENCES, INC.

By: /s/ Michael D. West  
Printed Name: Michael D. West  
Title: Chief Executive Officer

By: /s/ Judith Segall  
Printed Name: Judith Segall  
Title: Secretary

**EXHIBIT A**

**PATENT RIGHTS**

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Application	Title
US Application # 11/025,893	Method of differentiation of morula or inner cell mass cells and method of making lineage-defective embryonic stem cells
PCT/US2005/000103 Published a WO 2005/068610 A1 US #s 11/028,345, 11/211,174, 11/478,780	Novel culture systems for ex vivo development

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**EXHIBIT B**

**SUPPLEMENTAL PATENT RIGHTS**

Application	Title
PCT/US2000/018063, Serial No: 09/736,268 National Phase filing of PCT/US2000/018063, Serial No: 10/831,599 CON of 09/736,268 Filed on April 23, 2004	Cytoplasmic transfer to de-differentiate recipient cells
WO 01/018236 US #s 10/790,640 and 11/079,930.	Telomere Restoration And Extension Of Cell Life-Span In Animals Cloned From Senescent Somatic Cells
PCT/US2006/030632	Improved methods of reprogramming animal somatic cells
PCT Application PCT/US2006/040985 (Published as WO 2007/047894)	Nearly totipotent or pluripotent mammalian cells homozygous or hemizygous for one or more histocompatibility antigens
PCT/US02/26945 (Published as WO 03/018760) US# 10/227282	Screening assays for identifying differentiation-inducing agents and production of differentiated cells for cell therapy
20040018178, Serial No: 11/228,549 CON of 20040018178	Stem cell-derived endothelial cells modified to disrupt tumor angiogenesis

EXHIBIT C

**POWERS OF ATTORNEY AND OTHER AUTHORIZATIONS RELATING TO PATENT RIGHTS**

EXCLUSIVE SUBLICENSE AGREEMENT

This Exclusive Sublicense Agreement (“Agreement”) is made and entered into as of the 15th day of August, 2008 (the “Effective Date”), by and between Advanced Cell Technology, Inc., a Delaware corporation with offices located at 11100 Santa Monica Blvd, Suite 850, Los Angeles, CA 90025 (“ACT”), Embryome Sciences, Inc., a California corporation (“ES”), with offices located at 1301 Harbor Bay Parkway, Suite 100, Alameda, California 94502. ACT and ES are sometimes hereinafter referred to as the “Parties”.

WITNESSETH

WHEREAS, ACT is the licensee of certain PATENT RIGHTS under an Exclusive License Agreement, effective as of May 9, 2006, among ACT, Kirin Beer Kabushiki Kaisha, Aurox, LLC, Hematech, LLC, and Kirin SD, Inc.; and

WHEREAS, ES desires to obtain an exclusive sublicense from ACT to use the PATENT RIGHTS and a license to use KNOW-HOW upon the terms and conditions set forth in this Agreement; and

WHEREAS, ACT is willing to grant such a license to ES upon the terms and conditions set forth in this Agreement;

NOW, THEREFORE, in consideration of the premises and the mutual covenants contained herein, the Parties hereto agree as follows:

ARTICLE 1 - DEFINITIONS

For the purposes of this Agreement, the definitions found in Article 1 of the Kirin License Agreement are incorporated into this Agreement by reference, except as otherwise provide below. In addition, the following words and phrases shall have the following meanings:

1.1 “AFFILIATE” means any corporation, limited liability company, limited partnership or other entity in control of, controlled by, or under common control with ES. Any use the word AFFILIATE in this Agreement shall have the meaning set forth in this paragraph, rather than the mean ascribed to such term in the Kirin License Agreement.

1.2 “CONFIDENTIAL INFORMATION” means confidential or proprietary information of ACT or ES relating to the PATENT RIGHTS, KNOW-HOW, LICENSED PROCESSES, LICENSED SERVICES or LICENSED PRODUCTS. CONFIDENTIAL INFORMATION may be in written, graphic, oral or physical form and may include scientific knowledge, know-how, processes, inventions, techniques, formulae, products, business operations, customer requirements, designs, sketches, photographs, drawings, specifications, reports, studies, findings, data, plans or other records, biological materials, and/or software. CONFIDENTIAL INFORMATION shall not include: (a) information which is, or later becomes, generally available to the public through no fault of the recipient; (b) information which is provided to the recipient by an independent third party having no obligation to keep the information secret; (c) information which the recipient can establish by written documentation was previously known to it; or (d) information which the recipient can establish by written documentation

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was independently developed by it without reference to the CONFIDENTIAL INFORMATION.

1.3 "KIRIN LICENSE AGREEMENT" means that certain Exclusive License Agreement, effective as of May 9, 2006, among ACT, Kirin Beer Kabushiki Kaisha, Aurox, LLC, Hematech, LLC, and Kirin SD, Inc., as the same may from time to time be amended or modified.

1.4 "KNOW-HOW" means all compositions of matter, techniques and data and other know-how and technical information including inventions (whether or not patentable), improvements and developments, practices, methods, concepts, trade secrets, documents, computer data, computer slide illustrations, computer code, apparatus, test data, analytical and quality control data, formulation, manufacturing, patent data or descriptions, development information, drawings, specifications, designs, plans, proposals and technical data and manuals and all other CONFIDENTIAL INFORMATION that is owned or controlled by ACT as of the Effective Date, and that specifically relates to the subject matter described in or claimed by the PATENT RIGHTS.

1.5 "SUBLICENSEE" means a sublicensee of the rights granted ES under this Agreement, as further described in Article 2.

For purposes of this Agreement, except as otherwise expressly provided herein or unless the context otherwise requires: (a) the use herein of the plural shall include the single and *vice versa* and the use of the masculine shall include the feminine; (b) unless otherwise set forth herein, the use of the term "including" or "includes" means "including [includes] but [is] not limited to"; and (c) the words "herein," "hereof," "hereunder" and other words of similar import refer to this Agreement as a whole and not to any particular provision. Additional terms may be defined throughout this Agreement.

## ARTICLE 2 – LICENSE GRANT

2.1 Grant of Rights. ACT hereby grants to ES, and ES accepts, subject to the terms and conditions of this Agreement, a royalty-bearing (to the extent provided herein), worldwide, exclusive sublicense, with the right to further sublicense, to use the PATENT RIGHTS, and a worldwide, exclusive license, with the right to further sublicense, to use the and KNOW-HOW, to (a) research, develop, make, have made, use, sell, offer for sale, import, export, reproduce, distribute, perform, and display and otherwise dispose of LICENSED PRODUCTS, and (b) to develop and perform LICENSED SERVICES, in the Territory in the Exclusive ACT Field.

2.2 Sublicense Rights. ES shall have the right to grant sublicenses of its rights under Section 2.1 without the consent or approval of ACT. ES agrees to provide ACT with a fully executed copy of all sublicense agreements within thirty (30) days after execution.

2.3 Knowledge Transfer. Within ten (10) days of the Effective Date, ACT shall provide, deliver, and transfer to ES all information and data relating to the PATENT RIGHTS and KNOW-HOW as may be reasonably necessary to allow ES to exploit the licenses granted hereunder. Such transfer shall be made free and clear of all liens, security interests, encumbrances, and claims of any kind by any third party. ACT shall bear all costs of so delivering the KNOW HOW to ES. ACT shall not retain any copies (in any format or media) of the KNOW HOW.

2.4 Performance of Obligations under Kirin License Agreement. ACT agrees to fully perform when and as due all of its obligations, including but not limited to the payment of all royalties, Sublicense Revenue, and other amounts due, under the Kirin License Agreement. ACT will not terminate the Kirin License Agreement or cause the Kirin License Agreement to be terminated, and will not enter into any amendment or modification of, or waiver of rights under, the Kirin License Agreement, without the prior written consent of ES, which consent may be given or withheld in ES's sole discretion. ACT shall deliver to ES, within five (5) days after receiving the same, any and all notices or communications from the Licensor under the Kirin License Agreement. ES shall have the right, but not the obligation, to cure any and all breaches or defaults by ACT, or to perform any obligation of ACT required to avoid or prevent a breach or default by ACT, under the Kirin License Agreement, including but not limited to the payment of any royalties or Sublicense Revenue due under the Kirin License Agreement. ACT shall reimburse ES on demand, with interest at the rate of 12% per annum, for all costs and expenses incurred by ES to cure any breach or default, or to perform any obligation of ACT required to avoid or prevent a breach or default by ACT, under the Kirin License Agreement.

### ARTICLE 3 – COMMERCIALIZATION OBLIGATIONS

3.1 ES intends to use, or to cause its Sublicensees to use, commercially reasonable and diligent efforts to bring one or more ROYALTY-BEARING LICENSED PRODUCTS and ROYALTY BEARING LICENSED SERVICES to market through an active and diligent program for exploitation of the PATENT RIGHTS and KNOW-HOW and to continue active, diligent marketing efforts for one or more ROYALTY-BEARING LICENSED PRODUCTS and ROYALTY-BEARING LICENSED SERVICES throughout the life of this Agreement. ES makes no representation, guaranty, or warranty that it or its Sublicensees will be successful in developing or bringing to market any ROYALTY-BEARING LICENSED PRODUCT or ROYALTY-BEARING LICENSED SERVICES.

### ARTICLE 4 - CONSIDERATION

4.1 Initial Sublicense Fee. In partial consideration of the rights and licenses granted to ES by ACT in this Agreement, ES shall pay to ACT on the Effective Date a sublicense fee equal to Fifty Thousand Dollars (U.S.) (\$50,000) (the "Sublicense Fee"). The Sublicense Fee is not refundable and is not creditable against other payments due to ACT under this Agreement. The Sublicense Fee shall be allocated and paid in the following manner: (a) ES shall pay \$37,500 to the Licensor under the Kirin License Agreement (the "Licensor") to satisfy ACT's minimum royalty payment obligation for the year ended December 31, 2007 under Section 3.3 of the Kirin License Agreement; (b) ES shall pay to the Licensor the amount due under Section 3.7 of the Kirin License Agreement with respect to the payment made under clause (a) of this sentence to satisfy ACT's obligation to pay a late fee; (c) ES shall pay \$10,000 to the Licensor to satisfy ACT's obligation under Section 3.4 of the Kirin License Agreement to pay the Licensor 20% of all "Sublicense Income;" and (d) the amount, if any, by which \$50,000 exceeds the amounts paid under clauses (a) through(c) of this sentence shall be paid to ACT.

4.2 Additional Provisional Sublicense Fee. ES shall pay to ACT or to the Licensor the amount, if any, by which royalties on Net Sales paid to the Licensor under the Kirin License Agreement are less than \$50,000. Such amount shall be paid to ACT or to the Licensor on the later of (a) the date required under Section 3.3 of the Kirin License Agreement, or (b) five (5) business days after ES receives

written notice from ACT showing the total amount of royalties on Net Sales paid to the Licensor for the applicable year. ES shall determine in its sole discretion whether to pay such amount to ACT or directly to Licensor to satisfy ACT's obligation under Section 3.3 of the Kirin License Agreement.

#### 4.3 Royalties and Other Consideration.

(a) As additional consideration of the license granted to ES from ACT in Article 2 of this Agreement, ES shall pay to ACT a royalty equal to (i) 3.5% of the Net Sales received by ES and its AFFILIATES for all ROYALTY-BEARING LICENSED PRODUCTS or ROYALTY-BEARING LICENSED SERVICE sold, performed, or leased by ES or any AFFILIATE, and (ii) 20% of all Sublicense Revenue (as defined in the Kirin License Agreement) received by ES and its AFFILIATES, provided that in no event shall ACT receive, on a country-by-country basis, less than 3.5% of the aggregate Net Sales of the Licensed Product or Licensed Service in a particular country where ES has sublicensed to a third party rights with respect to the Licensed Product or Licensed Service. The obligation of ES to pay royalties shall terminate with respect to NET SALES and Sublicense Revenue arising in any country concurrently with the expiration or termination of the last applicable VALID CLAIM within the PATENT RIGHTS in such country in which the ROYALTY-BEARING LICENSED PRODUCT or ROYALTY-BEARING LICENSED SERVICE is sold, or May 9, 2016 if no such patents have issued by such date, whichever is longer.

(b) ES shall receive a credit toward the payment of royalties due under this Section 4.3 in an amount equal to the payments, if any, made by ES under Section 4.2. Such credit shall be cumulative and shall carry over to each subsequent year if the amount of royalties payable to ACT under this Section 4.2 is less than the amount paid by ES under Section 4.2.

(c) In the event that Licensee or any of its AFFILIATES or SUBLICENSEES is required to make, and actually does make, royalty payments to one or more third parties for a license to an issued patent or patents, ("Third Party Payments") in order to make, have made, use, import, sell or offer for sale ROYALTY-BEARING LICENSED PRODUCTS or to perform ROYALTY-BEARING LICENSED SERVICES, in the absence of which such ROYALTY-BEARING LICENSED PRODUCT or ROYALTY-BEARING LICENSED SERVICE could not legally be used or sold or performed in such country, and the resulting aggregate royalty owed by ES or any of its AFFILIATES or SUBLICENSEES is 15% or greater, then, ES may reduce the royalties due ACT pursuant to Section 4.2(a) above for such ROYALTY-BEARING LICENSED PRODUCT or ROYALTY-BEARING LICENSED SERVICE on the same proportionate basis as all other third party royalties are reduced in the same royalty period. However, the royalty payments due ACT under Section 4.2(a) may never be reduced by more than fifty percent (50%) in any royalty period.

(d) No multiple royalties shall be payable on the basis that any LICENSED PRODUCT, LICENSED PROCESS or LICENSED SERVICE, its manufacture, use, lease, sale or performance are or shall be covered by (i) more than one patent or patent application within the PATENT RIGHTS, or (ii) any other patent or know how under a license or sublicense from ACT. In the case of the use of patents or know how licensed or sublicensed by ACT under other agreements, ES and ACT's other licensees or sublicensees shall have the right to credit against the royalties owing to ACT, under this Agreement and under such other license or sublicense agreements, any royalty payments received by ACT with respect to the sale or lease of any product or performance of any service (regardless of whether



ES or another licensee or sublicensee of ACT patents or know how pays the royalty), such that in no event shall the total of royalty payments that are due to ACT in any royalty period under this Agreement and under such other license or sublicense agreements exceed the highest applicable royalty rate among this Agreement and such other license or sublicense agreements. By way of example only, if a product is produced by ES (alone or with a third party) and that product uses PATENT RIGHTS under this Agreement and patents licensed under a license or sublicense agreement between ACT and ES (or between ACT and the third party with whom ES is producing the product), (i) only one royalty would be paid to ACT on sales of the product, (ii) the royalty rate would be the higher of the royalty rate applicable under this Agreement or under ACT's other license or sublicense agreement with ES or the third party, and (iii) the royalty payment (whether paid by ES or by the third party) will be credited toward royalties payable under this Agreement and under the other ACT license or sublicense agreement with ES or the third party for the sale of the product.

4.4 Payment Method. All payments due under this Agreement shall be paid either to ACT in Los Angeles, California, U.S.A. or to the Licensor in Sioux Falls, South Dakota, U.S.A, as provided in Section 3.6 of the Kirin License Agreement, and shall be made in United States currency without deduction for taxes, assessments, exchanges, collection or other charges of any kind. Conversion of foreign currency to U.S. dollars shall be made at the conversion rate reported in The Wall Street Journal on the last working day of the calendar quarter to which the payment relates.

4.5 Late Fee. ES shall pay ACT or the Licensor interest on any overdue amounts at the rate of one percent (1%) per month (twelve percent (12%) per annum), from the date when such payment should have been made.

#### ARTICLE 5 - REPORTS AND RECORDS

5.1 ES shall maintain complete and accurate records of LICENSED PRODUCTS, LICENSED SERVICES and LICENSED PROCESSES that are sold, performed, or, leased by ES or its AFFILIATES under this Agreement, and all Sublicense Revenue received by ES and its AFFILIATES. ES shall keep, and shall cause its AFFILIATES and SUBLICENSEES to keep, full, true and accurate books of account containing all particulars that may be necessary for the purpose of showing the amounts payable to ACT hereunder and ES's compliance with the terms and conditions of this Agreement. Said books of account shall be kept at ES's principal place of business or at such other location as may be agreed upon by the parties. Said books and the supporting data shall be open upon reasonable advance notice (and no more frequently than once per calendar year) for three (3) years following the end of the calendar year to which they pertain, to the inspection of ACT or its agents for the purpose of verifying ES's royalty statement or compliance in other respects with this Agreement. If any such audit determines that the reported payments to ACT were less than ninety percent (95%) of the actual amount due to ACT for the period in question, ES shall bear the cost of such audit (without limiting ACT's other remedies with respect thereto).

5.2 After the first commercial sale of a LICENSED PRODUCT or LICENSED SERVICE by ES any AFFILIATE, or any SUBLICENSEE, or ES's receipt of any Sublicense Revenue, ES, within forty-five (45) days after March 31, June 30, September 30 and December 31, of each year, shall deliver to ACT a true and accurate report of all NET SALES and License Revenue during the preceding three-month period under this Agreement as shall be pertinent to a royalty accounting hereunder. Each

such report shall include at least the following:

- (a) number(s) of ROYALTY-BEARING LICENSED PRODUCTS, manufactured by ES, its AFFILIATES, or SUBLICENSEES, or by any third party on ES's behalf;
- (b) number(s) of ROYALTY-BEARING LICENSED PRODUCTS sold by ES, its AFFILIATES, and SUBLICENSEES;
- (c) total receipts for ROYALTY-BEARING LICENSED PRODUCTS sold by ES, its AFFILIATES, SUBLICENSEES;
- (d) total receipts for ROYALTY-BEARING LICENSED SERVICES sold by ES, its AFFILIATES, SUBLICENSEES; and
- (e) deductions applicable as provided in Section 1.9 of the Kirin License Agreement.

5.3 With each such report submitted, ES shall pay to ACT the royalties and other payments due and payable under this Agreement. If no royalties or other payments shall be due, ES shall so report.

5.4 ES's reporting obligations hereunder shall terminate when ES'S obligation to pay royalties to ACT terminates.

#### ARTICLE 6 - PATENT RIGHTS

6.1 Prosecution of Patents and Claims. ACT agrees confer with ES with respect to (a) the claims made in the patent applications included within the PATENT RIGHTS, and (b) the extent to which and manner in which Licensor is prosecuting such patents and claims, and (c) any additional, broader, or different claims under the patent applications or other PATENT RIGHTS that reasonably could be prosecuted for the benefit of ACT and ES. ACT will cooperate with ES in seeking the cooperation and agreement of Licensor to prosecute such patents and claims under patent applications or other PATENT RIGHTS as ES may reasonably request. ACT agrees that ES may assert the rights of ACT under Article 5 of the Kirin License Agreement, on behalf of ACT and ES, if ES does not agree with or is not satisfied with the content of any patent application or any other matter pertaining to the prosecution of any patent application or claim within any patent application or other PATENT RIGHTS.

6.2 Abandonment of PATENT RIGHTS. In the event that ACT receives a notice from the Licensor under Section 5.2 of the Kirin License Agreement, ACT shall promptly, but in no even later than five (5) days after receiving such notice, deliver a copy of such notice to ES. ACT and ES shall confer regarding what action, if any, to take to preserve any PATENT RIGHTS that might otherwise be abandoned by Licensor. ES shall have the right, but not the obligation, to take any and all actions that ACT is entitled to take under Section 5.2 of the Kirin License Agreement. ACT and ES agree to reasonably cooperate in connection with the preparation, filing, prosecution, and maintenance of the PATENT RIGHTS under this Section. Cooperation includes, without limitation, (a) promptly executing all papers and instruments or requiring employees of ACT or ES to execute papers and instruments as reasonably appropriate to enable ES to file, prosecute, and maintain PATENT RIGHTS in any country;

and (b) promptly informing ES of matters that may affect preparation, filing, prosecution, or maintenance of PATENT RIGHTS (such as becoming aware of an additional inventor who is not listed as an inventor in a patent application).

6.3 Infringement of PATENT RIGHTS. The Parties agree to notify each other in writing of any actual or threatened infringement by a third party of the PATENT RIGHTS or of any third-party claim of invalidity or unenforceability of the PATENT RIGHTS, or of any interference or other proceeding affecting the PATENT RIGHTS.

6.4 New Patents, Inventions, and Discoveries. ES shall have the right to file and prosecute new patent applications (and to obtain new patents) covering LICENSED PRODUCTS and LICENSED SERVICES, and any other subject matter, with respect to any technology, invention, or discovery made by ES or any of its AFFILIATES or SUBLICENSEES using PATENT RIGHTS or KNOW-HOW. ACT shall acquire no rights with respect to such new patents, inventions, discoveries, or technology not included within the PATENT RIGHTS sublicensed, or the KNOW-HOW licensed, to ES by ACT.

ARTICLE 7 – INDEMNIFICATION,  
LIMITATION OF LIABILITY AND INSURANCE

7.1 ES shall at all times during the term of this Agreement and thereafter, indemnify, defend and hold harmless ACT and its affiliates, successors, assigns, agents, officers, directors, shareholders and employees (each, an “Indemnified Party”), at ES’s sole cost and expense, against all liabilities of any kind whatsoever, including legal expenses and reasonable attorneys’ fees, arising out of the death of or injury to any person or persons or out of any damage to property resulting from the production, manufacture, sale, use, lease, performance, consumption or advertisement of the LICENSED PRODUCTS or LICENSED SERVICES or arising from any obligation, act or omission, or from a breach of any representation or warranty of ES hereunder, excepting only claims that result from (a) the willful misconduct or gross negligence of ACT, (b) any material breach by ACT of its representations and warranties under this Agreement, and (c) claims alleging that the use of any of the PATENT RIGHTS infringe upon any patent, trade secret, or moral right of any third party. The indemnification obligations set forth herein are subject to the following conditions: (i) the Indemnified Party shall notify ES in writing promptly upon learning of any claim or suit for which indemnification is sought; (ii) ES shall have control of the defense or settlement, provided that the Indemnified Party shall have the right (but not the obligation) to participate in such defense or settlement with counsel at its selection and at its sole expense; and (iii) the Indemnified Party shall reasonably cooperate with the defense, at ES’s expense.

7.2 ACT shall at all times during the term of this Agreement and thereafter, indemnify, defend and hold harmless ES and its AFFILIATES, successors, assigns, agents, officers, directors, shareholders and employees, at ACT’s sole cost and expense, against all liabilities of any kind whatsoever, including legal expenses and reasonable attorneys’ fees, arising out of or resulting from (a) any breach or default by ACT under the Kirin License Agreement, or (b) any breach of any warranty or representation of ACT under this Agreement.

7.3 EXCEPT AS OTHERWISE EXPRESSLY SET FORTH IN THIS AGREEMENT, ACT, ITS DIRECTORS, OFFICERS, AGENTS, SHAREHOLDERS, EMPLOYEES, AND AFFILIATES MAKE NO REPRESENTATIONS AND EXTEND NO WARRANTIES OF ANY KIND, EITHER

EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, VALIDITY OF PATENT RIGHTS CLAIMS, ISSUED OR PENDING, AND THE ABSENCE OF LATENT OR OTHER DEFECTS, WHETHER OR NOT DISCOVERABLE. NOTHING IN THIS AGREEMENT SHALL BE CONSTRUED AS A REPRESENTATION MADE OR WARRANTY GIVEN BY ACT THAT THE PRACTICE BY ES OF THE LICENSE GRANTED HEREUNDER SHALL NOT INFRINGE THE PATENT RIGHTS OF ANY THIRD PARTY. IN NO EVENT SHALL ACT, ITS DIRECTORS, OFFICERS, AGENTS, SHAREHOLDERS, EMPLOYEES AND AFFILIATES BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND, INCLUDING ECONOMIC DAMAGE OR INJURY TO PROPERTY AND LOST PROFITS, REGARDLESS OF WHETHER ACT SHALL BE ADVISED, SHALL HAVE OTHER REASON TO KNOW, OR IN FACT SHALL KNOW OF THE POSSIBILITY OF SUCH DAMAGES.

7.4 ES agrees to maintain insurance or self-insurance that is reasonably adequate to fulfill any potential obligation to the indemnified parties. ES shall continue to maintain such insurance or self-insurance during the term of this Agreement and after the expiration or termination of this Agreement for a period of five (5) years.

#### ARTICLE 8 – TERMINATION

8.1 This Agreement shall be effective on the Effective Date and shall extend until the expiration of the last to expire of the PATENT RIGHTS, or until May 9, 2016 if not patents are issued, unless sooner terminated as provided in this Article 8.

8.2 ACT may terminate this Agreement and the rights, privileges and license granted hereunder by written notice upon a breach or default of this Agreement by ES, as follows:

- (i) non-payment of any amounts due which is not cured within thirty (30) days of receipt of written notice of such non-payment wherein said notice is delivered by registered mail; or
- (ii) breach of any obligation which is not cured within thirty (30) days of a written request to remedy such breach wherein said request is delivered by registered mail, or if the breach cannot be cured within said thirty (30) day period, failure of ES within said thirty (30) day period to proceed with reasonable promptness thereafter to cure the breach.

Such termination shall become automatically effective unless ES shall have cured any such material breach or default prior to the expiration of the applicable cure period.

8.3 ES shall have the right to terminate this Agreement at any time on three (3) months' prior notice to ACT, and upon payment of all amounts due ACT through the effective date of the termination.

8.4 Upon termination of this Agreement for any reason, nothing herein shall be construed to release either party from any obligation that matured prior to the effective date of such termination; and Sections 5.1, Article 7, Article 9, and Article 11, and any other Sections or provisions which by their nature are intended to survive termination, shall survive any such termination.

ARTICLE 9 - CONFIDENTIALITY

9.1 During the course of this Agreement, ACT and ES may provide each other with CONFIDENTIAL INFORMATION. CONFIDENTIAL INFORMATION may be disclosed in oral, visual or written form, and includes such information that is designated in writing as such by the discloser at the time of disclosure, orally disclosed information that is designated in writing as confidential within 30 days after such oral disclosure, or information which, under all of the given circumstances ought reasonably be treated as CONFIDENTIAL INFORMATION of the disclosing party. ACT and ES each intend to maintain the confidential or trade secret status of their CONFIDENTIAL INFORMATION. Each shall exercise reasonable care to protect the CONFIDENTIAL INFORMATION of the other from disclosure to third parties; no such disclosure shall be made without the other's written permission. Upon termination or expiration of this Agreement, ACT and/or ES shall comply with the other's written request to return all CONFIDENTIAL INFORMATION that is in written or tangible form. Except as expressly provided herein, neither ACT nor ES is granted any license to use the other's CONFIDENTIAL INFORMATION. The obligations of ACT and ES under this Article 9 shall survive any expiration or termination of this Agreement. Notwithstanding the preceding provisions of this Section 9.1, until such time as this Agreement is terminated: (a) KNOW HOW and the content of any patent application relating to or included in PATENT RIGHTS shall be deemed to be the LICENSEE's CONFIDENTIAL INFORMATION rather than ACT's CONFIDENTIAL INFORMATION; (b) LICENSEE shall have the right to disclose KNOW HOW and the content of patent applications related to or included in PATENT RIGHTS to third parties without restriction under this Agreement; and (c) LICENSEE shall not have any obligation to ACT to treat KNOW HOW or the content of any patent application related to or included in PATENT RIGHTS as ACT's CONFIDENTIAL INFORMATION.

9.2 The parties agree that the specific terms (but not the overall existence) of this Agreement shall be considered CONFIDENTIAL INFORMATION; provided, however, that the parties may disclose the terms of this Agreement to investors or potential investors, potential business partners, potential SUBLICENSEES and assignees, potential co-developers, manufacturers, marketers, or distributors of any LICENSED PRODUCT or LICENSED SERVICE, and in any prospectus, offering, memorandum, or other document or filing required by applicable securities laws or other applicable law or regulation. The parties may also disclose CONFIDENTIAL INFORMATION that is required to be disclosed to comply with applicable law or court order, provided that the recipient gives reasonable prior written notice of the required disclosure to the discloser and reasonably cooperates with the discloser's efforts to prevent such disclosure.

ARTICLE 10 - PAYMENTS, NOTICES, AND OTHER COMMUNICATIONS

Any payment, notice or other communication required to be given to any party will be deemed to have been properly given and to be effective (a) on the date of delivery if delivered by hand, recognized national next business day delivery service, confirmed facsimile transmission, or confirmed electronic mail, or five (5) days after mailing by registered or certified mail, postage prepaid, return receipt requested, to the respective addresses given below, or to another address as it shall designate by written notice given to the other party in the manner provided in this Section.

In the case of ACT:                   Advanced Cell Technology, Inc.  
11100 Santa Monica Blvd, Suite 850  
Los Angeles, CA 90025  
Attention: William M. Caldwell, IV

With a copy to:                       Pierce Atwood LLP  
One Monument Square  
Portland, ME 0401  
Attention: William L. Worden, Esq.

In the case of ES                       Embryome Sciences, Inc.  
1301 Harbor Bay Parkway, Suite 100  
Alameda, California 94502  
Attention: Michael D. West

With a copy to:                       Richard S. Soroko, Esq.  
Lippenberger, Thompson, Welch, Soroko & Gilbert LLP  
201 Tamal Vista Blvd.  
Corte Madera, California 94925

ARTICLE 11 - REPRESENTATIONS AND WARRANTIES

11.1     ES represents and warrants that it has full corporate power and authority to enter into this Agreement, that this Agreement constitutes the binding legal obligation of ES, enforceable in accordance with its terms, and that the execution and performance of this Agreement by ES will not violate, contravene or conflict with any other agreement to which ES is a party or by which it is bound or with any law, rule or regulation applicable to ES, and that any permits, consents or approvals necessary or appropriate for ES to enter into this Agreement have been obtained.

11.2     ES is an entity duly incorporated or otherwise organized, validly existing and in good standing under the laws of the jurisdiction of its incorporation or organization, with the requisite power and authority to own and use its properties and assets and to carry on its business as currently conducted.

11.3     ACT represents and warrants that (a) the Kirin License Agreement is in full force and effect, (b) it has the full legal right and power to enter into this Agreement and to grant the sublicenses granted hereunder, (c) that this Agreement constitutes the binding legal obligation of ACT, enforceable in accordance with its terms, (c) the execution, delivery, and performance of this Agreement by ACT will not violate, contravene or conflict with the Kirin License Agreement or with any other agreement to which ACT is a party or by which it is bound or with any law, rule or regulation applicable to ACT, (d) ACT owns the KNOW-HOW, and (e) any permits, consents or approvals necessary or appropriate for ACT to enter into this Agreement have been obtained.

11.4     ACT represents and warrants that, to the best of its knowledge, the use of the PATENT RIGHTS and KNOW-HOW by ES or any AFFILIATE or SUBLICENSEE of ES for any purposes contemplated or permitted by this Agreement, will not infringe in any way any claim under any patent held by any third party.

11.5 ACT represents and warrant that the use of the PATENT RIGHTS and KNOW-HOW by ES or any AFFILAITE or SUBLICENSEE of ES for any purposes contemplated or permitted by this Agreement, will not infringe in any way any claim under any patent held by ACT or under any patent that may issue from any ACT patent application now pending, or under any patent that ACT may in the future obtain, or any other intellectual property rights of ACT.

11.6 ACT further represents, warrants and agrees, that it shall not make any claim or demand, or commence any lawsuit or other proceeding, alleging that use of the PATENT RIGHTS and KNOW-HOW by ES or any AFFILIATE or SUBLICENSEE of ES for any purpose contemplated or permitted by this Agreement infringes in any way any claim under any patent held by ACT or under any patent that may issue from any ACT patent application now pending, or under any patent that ACT may in the future obtain, or any other intellectual property rights of ACT. The provisions of this Section 11.6 shall pertain as well to all subsidiaries of ACT and all patents and patent applications of ACT subsidiaries. ACT and its subsidiaries shall cause the provisions of this Section 11.6, as they pertain to refraining from asserting claims and demands or commencing lawsuits and proceedings, to be including in all licenses and assignments of ACT's patents and patent applications.

11.7 This Article 11 shall survive expiration or termination of this Agreement.

#### ARTICLE 12 - MISCELLANEOUS PROVISIONS

12.1 Nothing herein shall be deemed to constitute either party as the agent or representative of the other party.

12.2 To the extent commercially feasible, and consistent with prevailing business practices, all products manufactured or sold under this Agreement will be marked with the number of each issued patent that applies to such product.

12.3 This Agreement shall be construed, governed, interpreted and applied in accordance with the laws of California, without regard to principles of conflicts of law thereof, except that questions affecting the construction and effect of any patent shall be determined by the law of the country in which the patent was granted.

12.4 The parties hereto acknowledge that this Agreement (including the Exhibits hereto) sets forth the entire Agreement and understanding of the parties hereto as to the subject matter hereof, and shall not be subject to any change or modification except by the execution of a written instrument subscribed to by the parties hereto.

12.5 The provisions of this Agreement are severable, and in the event that any provisions of this Agreement shall be determined to be invalid or unenforceable under any controlling body of the law, such invalidity or unenforceability shall not in any way affect the validity or enforceability of the remaining provisions hereof.

12.6 The failure of either party to assert a right hereunder or to insist upon compliance with

any term or condition of this Agreement shall not constitute a waiver of that right or excuse a similar subsequent failure to perform any such term or condition by the other party.

12.7 Licenses of Intellectual Property; Bankruptcy Code. The parties agree that the sublicenses granted to ES to use PATENT RIGHTS constitute licenses of “intellectual property” as defined in the United States Bankruptcy Code (the “Bankruptcy Code”) and as used in Section 365(n) of the Bankruptcy Code. The Parties agree that the KNOW-HOW includes trade secrets. The parties also agree that the payments of royalties on Net Sales and Sublicense Revenue required to be paid by ES to ACT under this Agreement constitute “royalties” under Section 365(n) of the Bankruptcy Code.

[The next page is the signature page]



IN WITNESS WHEREOF, the parties have duly executed this Agreement as of the Effective Date set forth above.

ADVANCED CELL TECHNOLOGY, INC.

By: /s/ William M. Caldwell, IV  
Printed Name: William M. Caldwell, IV  
Title: Chairman & CEO

By: /s/ William M. Caldwell, IV  
Printed Name: William M. Caldwell, IV  
Title: Secretary

EMBRYOME SCIENCES, INC.

By: /s/ Michael D. West  
Printed Name: Michael D. West  
Title: Chief Executive Officer

By: /s/ Judith Segall  
Printed Name: Judith Segall  
Title: Secretary

**FOURTH AMENDMENT OF REVOLVING LINE OF CREDIT AGREEMENT**

This Fourth Amendment of Revolving Line of Credit Agreement is made and entered into as of November 14, 2008, by and among each of the persons who have executed this Agreement as a Lender (each a "Lender," and collectively "Lenders"), and BioTime, Inc., a California corporation ("Borrower"), and amends that certain Third Amended and Restated Credit Agreement dated March 31, 2008. The Third Amended and Restated Credit Agreement, dated March 31, 2008, as amended by this Fourth Amendment of Revolving Credit Agreement is referred to as the "Credit Agreement".

The Credit Agreement is amended as follows:

**1. Definitions:**

(a) **"Fourth Amendment"** means this Fourth Amendment of Revolving Line of Credit Agreement.

(b) **"Credit Facility"** means the right of Borrower to borrow up to \$3,500,000 from Lenders under the terms and conditions of this Credit Agreement and the Note.

(c) **"Maturity Date"** means (i) April 15, 2009 with respect to any Note issued for an additional Loan commitment under this Fourth Amendment, (ii) April 15, 2009 with respect to any Note issued under the Third Amended and Restated Credit Agreement or an earlier amendment of the Credit Agreement, if the Lender has signed an Amendment of Revolving Credit Note extending the Maturity Date, or (iii) November 15, 2008 with respect to any Note issued under the Third Amended and Restated Credit Agreement or an earlier amendment of the Credit Agreement as to which clause (ii) does not apply.

(d) **"Note"** means (a) each promissory note evidencing a portion of the Loan previously advanced by certain Lenders, and (b) each Revolving Credit Note in the form attached as EXHIBIT A-1 evidencing the new Loan amounts to be advanced by certain Lenders.

(e) **"Security Agreement"** means that certain Third Amended and Restated Security Agreement, dated March 31, 2008, as amended by a Fourth Amendment of Security Agreement among Borrower and Lenders pursuant to which Borrower is granting Lenders a first priority perfected security interest in certain specified collateral to secure Borrower's obligations under this Agreement and the Note.

**2. Maximum Loan Amount.** The Maximum Loan Amount shall be Three Million Five Hundred Thousand Dollars (\$3,500,000).

**3. Draw Period.** The Draw Period shall end on April 15, 2009.

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4. **Extension of Maturity Date.** Any Lender holding a Note due November 15, 2008 may extend the Maturity Date of that Note to April 15, 2009 by executing and delivering to Borrower an Amendment of Revolving Credit Note in the form of Exhibit B.

5. **Earmarked Funds; Mandatory Prepayment.** The definition of Earmarked Funds and all references to Earmarked Funds, including the mandatory prepayment of principal pursuant to Section 3.2.1 of the Credit Agreement, shall not apply.

6. **Shares.** Borrower shall issue and deliver to certain Lenders a number of Shares having an aggregate market value equal to six percent (6%) of the Lender's Loan commitment having an April 15, 2009 Maturity Date (including any new or additional Loan commitment, and the principal amount of any Loan as to which the Lender extended the Maturity Date by executing an Amendment of Revolving Credit Note). Shares will be issued only to those Lenders who (a) agree to make all or a portion of the additional \$1,000,000 of the Credit Facility available under this Fourth Amendment, or (b) agree to extend the Maturity Date of their Note to April 15, 2009 by executing an Amendment of Revolving Credit Note. No fractional Shares shall be issued. For the purpose of determining the number of Shares to be issued to a Lender entitled to receive Shares, the market value shall be deemed to be the closing price of the Shares on the OTCBB on the last day on which a closing price of the Shares was reported prior to the date on which the Lender executed and delivered this Fourth Amendment.

7. **Disclosure Documents.** Borrower has delivered to Lenders following reports filed by Borrower under Securities Exchange Act of 1934, as amended (the "Exchange Act"): (a) a copy of Borrower's annual report on Form 10-KSB for the fiscal year ended December 31, 2007, and quarterly report on Form 10-Q for the fiscal quarter and six months ended June 30, 2008, and all Current Reports on Form 8-K filed by Borrower since August 15, 2008 (the "Current Disclosure Documents"). The financial statements contained in the Current Disclosure Documents were prepared in accordance with generally accepted accounting principles, consistently applied, and accurately reflect the financial condition and results of operations of Borrower at and as of the dates reported. All financial information and other information contained in the Current Disclosure Documents was true and correct in all material respects when such reports were filed under the Exchange Act.

8. **Exchange of Debt For Equity.** Notes that had a November 15, 2008 Maturity Date may be exchanged, in whole or in part, including both unpaid principal and accrued interest, for (a) BioTime Exchange Shares at a price of \$1.00 per share until November 15, 2008, or (b) BioTime Exchange Shares at a price of \$1.25 per share after November 15, 2008 and until April 15, 2009 if the Lender has executed an Amendment of Revolving Credit Note, or (c) ESI Exchange Shares at a price of \$2.00 per share until November 15, 2008, or (d) ESI Exchange Shares at a price of \$2.25 per share after November 15, 2008 and until April 15, 2009 if the Lender has executed an Amendment of Revolving Credit Note. Notes having a Maturity Date of April 15, 2009 that were issued for a new Loan commitment under this Fourth Amendment, may be exchanged, in whole or in part, including both unpaid principal and accrued interest, for (x) BioTime Exchange Shares at a price of \$1.50 per share until April 15, 2009, or (y) ESI Exchange

Shares at a price of \$2.50 per share until April 15, 2009. All other provisions of Section 17 of the Credit Agreement shall apply.

**9. Other Provisions of Credit Agreement Apply.** Except as modified or amended by this Fourth Amendment, all provisions of the Third Amended and Restated Revolving Line of Credit Agreement shall remain in full force and effect. Any Lender who has not previously executed the Third Amended and Restated Revolving Line of Credit Agreement shall, by executing this Fourth Amendment, (a) acknowledge receipt of the Third Amended and Restated Revolving Line of Credit Agreement, (b) agree to be bound by all terms and conditions of the Third Amended and Restated Revolving Line of Credit Agreement, as amended by this Fourth Amendment, and (c) shall be deemed to have made the representations and warranties set forth in Section 20 of the Third Amended and Restated Revolving Line of Credit Agreement, except that references to the Disclosure Documents shall instead mean the Current Disclosure Documents.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first above written.

BORROWER:

BIOTIME, INC.

By /s/ Michael D. West

Title CEO

By /s/ Judith Segall

Title Vice President & Secretary

LENDERS:

/s/ Alfred D. Kingsley  
Alfred D. Kingsley

GREENWAY PARTNERS, L.P.  
By: Greenhouse Partners, L.P.,  
General Partner

By /s/ Alfred D. Kingsley  
Alfred D. Kingsley, General Partner

Broadwood Partners, L.P.

By: Broadwood Capital, Inc.,  
General Partner of Broadwood Partners, L.P.

By: /s/ Neal C. Bradsher  
Neal C. Bradsher, President

Goren Brothers, LP

By: /s/ Alex Goren

Title: General Partner

/s/ Joseph Nemeth  
Joseph Nemeth

/s/ Justin Bayern  
Justin Bayern

**SCHEDULE I**

**Loan Commitment—April 15, 2009 Maturity Date**

<u>Name and Address Of Lender</u>	<u>Amount of Loan Commitment</u>
Alfred D. Kingsley 150 East 57 <sup>th</sup> Street, Suite 24E New York, NY 10022 FAX: (212) 207-3901	\$250,000
Greenway Partners, LP c/o Alfred D. Kingsley 150 East 57 <sup>th</sup> Street, Suite 24E New York, NY 10022 FAX: (212) 207-3901	\$300,000
Broadwood Partners, L.P. 724 Fifth Avenue 9 <sup>th</sup> Floor New York, NY 10019 FAX: (212) 508-5756	\$550,000
Goren Brothers, LP 150 E. 52nd Street, 29th Fl. New York, NY 10022 FAX: (212) 759-0572	\$200,000
Joseph Nemeth 29829 Telegraph Road, Suite 111 Southfield, MI 48034 FAX: (248) 357-1626	\$100,000
Justin Bayern 26 West Broadway, Apt 1004 Long Beach, NY 11561	\$50,000

**EXHIBIT A-1**

REVOLVING CREDIT NOTE

\$ \_\_\_\_\_, 2008

FOR VALUE RECEIVED, the undersigned, BioTime, Inc., a California corporation (Borrower") hereby promises to pay to the order of \_\_\_\_\_ ("Lender") the principal sum of \_\_\_\_\_ DOLLARS (\$ \_\_\_\_\_) or such lesser amount as may from time to time be outstanding as the Loan pursuant to that certain Fourth Amendment of Revolving Line of Credit Agreement, dated \_\_\_\_\_, \_\_\_, 2008, between Borrower and Lender, together with interest on the unpaid balance of the Loan at the rate or rates hereinafter set forth. This Revolving Credit Note is one of the Notes described in the Fourth Amendment of Revolving Line of Credit Agreement. As used in this Note the term "Credit Agreement" means the Third Amended and Restated Revolving Line of Credit Agreement, dated March 31, 2008, as amended by the Fourth Amendment of Revolving Line of Credit Agreement. All capitalized terms not otherwise defined in this Note shall have the meanings defined in the Credit Agreement.

**1. Terms of Payment.**

(a) **Interest Rate.** Interest shall accrue and be payable at the rate of 12% per annum on the outstanding principal balance of the Loan. Interest shall accrue from the date of each disbursement of principal pursuant to a Draw. Accrued interest shall be paid with principal. Interest will be charged on that part of outstanding principal of the Loan which has not been paid and shall be calculated on the basis of a 360-day year and a 30-day month.

(b) **Payments of Principal.** The outstanding principal balance of the Loan, together with accrued interest, shall be paid in full on the Maturity Date.

(c) **Optional Prepayment of Principal.** Borrower may prepay principal, with accrued interest, at any time and the amount of principal so prepaid shall be available for further Draws by Borrower during the Draw Period.

(d) **Default Interest Rate.** In the event that any payment of principal or interest is not paid within five (5) days from on the date on which the same is due and payable, such payment shall continue as an obligation of the Borrower, and interest thereon from the due date of such payment and interest on the entire unpaid balance of the Loan shall accrue until paid in full at the lesser of (i) fifteen percent (15%) per annum, or (ii) the highest interest rate permitted under applicable law (the "Default Rate"). From and after the Maturity Date or upon acceleration of the Note, the entire unpaid principal balance of the Loan with all unpaid interest accrued thereon, and any and all other fees and charges then due at such maturity, shall bear interest at the Default Rate.



(e) **Date of Payment.** If the date on which a payment of principal or interest on the Loan is due is a day other than a Business Day, then payment of such principal or interest need not be made on such date but may be made on the next succeeding Business Day.

(f) **Application of Payments.** All payments shall be applied first to costs of collection, next to late charges or other sums owing Lender, next to accrued interest, and then to principal, or in such other order or proportion as Lender, in its sole discretion, may determine.

(g) **Currency.** All payments shall be made in United States Dollars.

2. **Events of Default.** The following shall constitute Events of Default: (a) the default of Borrower in the payment of any interest or principal due under this Note or the Credit Agreement or any other Note arising under the Credit Agreement; (b) the failure of Borrower to perform or observe any other term or provision of this Note, or any other Note arising under the Credit Agreement, or any term, provision, covenant, or agreement in the Credit Agreement or any other Loan Document; (c) any act, omission, or other event that constitutes an "Event of Default" under the Credit Agreement; (d) any representation or warranty of Borrower contained in the Credit Agreement or in any other Loan Document, or in any certificate delivered by Borrower pursuant to the Credit Agreement or any other Loan Document, is false or incorrect in any material respect when made or given; (e) Borrower becoming the subject of any order for relief in a proceeding under any Debtor Relief Law (as defined below); (f) Borrower making an assignment for the benefit of creditors; other than repayment of the Loan, in whole or in part, to Lenders; (g) Borrower applying for or consenting to the appointment of any receiver, trustee, custodian, conservator, liquidator, rehabilitator, or similar officer for it or for all or any part of its property or assets; (h) the appointment of any receiver, trustee, custodian, conservator, liquidator, rehabilitator, or similar officer for Borrower, or for all or any part of the property or assets of Borrower, without the application or consent of Borrower, if such appointment continues undischarged or unstayed for sixty (60) calendar days; (i) Borrower instituting or consenting to any proceeding under any Debtor Relief Law with respect to Borrower or all or any part of its property or assets, or the institution of any similar case or proceeding without the consent of Borrower, if such case or proceeding continues undismissed or unstayed for sixty (60) calendar days; (j) the dissolution or liquidation of Borrower, or the winding-up of the business or affairs of Borrower; (k) the taking of any action by Borrower to initiate any of the actions described in clauses (e) through (j) of this paragraph; (l) the issuance or levy of any judgment, writ, warrant of attachment or execution or similar process against all or any material part of the property or assets of Borrower if such process is not released, vacated or fully bonded within sixty (60) calendar days after its issue or levy; or (m) any breach or default by Borrower under any loan agreement, promissory note, or other instrument evidencing indebtedness payable to a third party. As used in this Note, the term "Debtor Relief Law" means the Bankruptcy Code of the United States of America, as amended, or any other applicable liquidation, conservatorship, bankruptcy, moratorium, rearrangement, receivership, insolvency, reorganization, or similar debtor relief law affecting the rights of creditors generally.

3. **Remedies On Default.** Upon the occurrence of an Event of Default, at Lender's option, all unpaid principal and accrued interest, and all other amounts payable under this Note shall become immediately due and payable without presentment, demand, notice of non

payment, protest, or notice of non-payment. Lender also shall have all other rights, powers, and remedies available under the Credit Agreement and any other Loan Document, or accorded by law or at equity. All rights, powers, and remedies of Lender may be exercised at any time by Lender and from time to time after the occurrence of an Event of Default. All rights, powers, and remedies of Lender in connection with this Note and any other Loan Document are cumulative and not exclusive and shall be in addition to any other rights, powers, or remedies provided by law or equity.

#### 4. Miscellaneous.

(a) Borrower and all guarantors and endorsers of this Note severally waive (i) presentment, demand, protest, notice of dishonor, and all other notices; (ii) any release or discharge arising from any extension of time, discharge of a prior party, release of any or all of the security for this Note, and (iii) any other cause of release or discharge other than actual payment in full of all indebtedness evidenced by or arising under this Note.

(b) No delay or omission of Lender to exercise any right, whether before or after an Event of Default, shall impair any such right or shall be construed to be a waiver of any right or default, and the acceptance of any past-due amount at any time by the Lender shall not be deemed to be a waiver of the right to require prompt payment when due of any other amounts then or thereafter due and payable. The Lender shall not be deemed, by any act or omission, to have waived any of Lender's rights or remedies under this Note unless such waiver is in writing and signed by Lender and then only to the extent specifically set forth in such writing. A waiver with reference to one event shall not be construed as continuing or as a bar to or waiver of any right or remedy as to a subsequent event.

(c) Lender may accept, indorse, present for payment, and negotiate checks marked "payment in full" or with words of similar effect without waiving Lender's right to collect from Borrower the full amount owed by Borrower.

(d) **Time is of the essence under this Note.** Upon any Event of Default, the Lender may exercise all rights and remedies provided for in this Note and by law, including, but not limited to, the right to immediate payment in full of this Note.

(e) The rights and remedies of the Lender as provided in this Note, in the Credit Agreement, and in the Security Agreement and in law or equity, shall be cumulative and concurrent, and may be pursued singularly, successively, or together at the sole discretion of the Lender, and may be exercised as often as occasion therefor shall occur; and the failure to exercise any such right or remedy shall in no event be construed as a waiver or a release of any such right or remedy.

(f) It is expressly agreed that if this Note is referred to an attorney or if suit is brought to collect this Note or any amount due under this Note, or to enforce or protect any rights conferred upon Lender by this Note then Borrower promises and agrees to pay on demand all costs, including without limitation, reasonable attorneys' fees, incurred by Lender in the enforcement of Lender's rights and remedies under this Note, and such other agreements.

**(g)** The terms, covenants, and conditions contained in this Note shall be binding upon the heirs, executors, administrators, successors, and assigns of Borrower, and each of them, and shall inure to the benefit of the heirs, executors, administrators, successors and assigns of Lender.

**(h)** This Note shall be construed under and governed by the laws of the State of California without regard to conflicts of law.

**(i)** No provision of this Note shall be construed or so operate as to require the Borrower to pay interest at a greater rate than the maximum allowed by applicable state or federal law. Should any interest or other charges paid or payable by the Borrower in connection with this Note or the Loan result in the computation or earning of interest in excess of the maximum allowed by applicable state or federal law, then any and all such excess shall be and the same is hereby waived by Lender, and any and all such excess paid shall be credited automatically against and in reduction of the outstanding principal balance due of the Loan, and the portion of said excess which exceeds such principal balance shall be paid by Lender to the Borrower.

BORROWER:

BIOTIME, INC.

By \_\_\_\_\_  
Title \_\_\_\_\_

By \_\_\_\_\_  
Title \_\_\_\_\_

**EXHIBIT B**

AMENDMENT OF REVOLVING CREDIT NOTE

\$ \_\_\_\_\_, 2008

Reference is made to that certain Revolving Credit Note dated \_\_\_\_\_, 2008, in the principal sum of \_\_\_\_\_ DOLLARS (\$ \_\_\_\_\_) made by BioTime, Inc., as "Borrower," and payable the order of the undersigned as "Lender" (the "Note"). The Maturity Date of the Note is hereby extended to April 15, 2009. The Note, as so amended, shall be governed by that certain Fourth Amendment of Revolving Line of Credit Agreement, dated September \_\_\_\_, 2008, between Borrower and Lender.

LENDER:

\_\_\_\_\_  
(Please Print Name of Lender)

By: \_\_\_\_\_  
(Signature)

Title: \_\_\_\_\_  
(Please Show Title If Applicable)

BORROWER:

BIOTIME, INC.

By \_\_\_\_\_

Title \_\_\_\_\_

By \_\_\_\_\_

Title \_\_\_\_\_

**FOURTH AMENDMENT OF SECURITY AGREEMENT**

This Fourth Amendment of Security Agreement (“Fourth Amendment”) is made as of November 14, 2008 by BioTime, Inc., as the “Debtor,” in favor and for the benefit of each “Secured Party,” and amends that certain Third Amended and Restated Security Agreement, March 31, 2008.

1. “Security Agreement” means the Third Amended and Restated Security Agreement, March 31, 2008, as amended by this Fourth Amendment.
2. “Credit Agreement” means that certain Third Amended and Restated Revolving Line of Credit Agreement, dated March 31, 2008, as amended by the Fourth Amendment of Revolving Line of Credit Agreement.
3. “Secured Party” means, individually and collectively, each person who has executed the Credit Agreement as a Lender.
4. “Note” has the meaning ascribed in the Credit Agreement.
5. Except as amended or modified by this Fourth Amendment, all provisions of the Third Amended and Restated Security Agreement remain in effect.

**DEBTOR**

BIOTIME, INC.

By: /s/ Michael D. West  
Chief Executive Officer

By: /s/ Judith Segall  
Secretary

## CERTIFICATIONS

I, Michael D. West, certify that:

1. I have reviewed this quarterly report on Form 10-Q of BioTime, 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 officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rule 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 the periodic reports are being prepared;
  - (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
  - (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 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 officers 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 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: November 18, 2008

/s/ Michael D. West

Michael D. West  
Chief Executive Officer

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**CERTIFICATIONS**

I, Steven A. Seinberg, certify that:

1. I have reviewed this quarterly report on Form 10-Q of BioTime, 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 officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rule 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 the periodic reports are being prepared;
  - (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
  - (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 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 officers 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 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: November 18, 2008

/s/ Steven A. Seinberg

Steven A. Seinberg  
Chief Financial 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 on Form 10-Q of BioTime, Inc. (the "Company") for the quarter ended September 30, 2008 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), we, Michael D. West, Chief Executive Officer, and Steven A. Seiberg, 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, that:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: November 18, 2008

/s/ Michael D. West

Michael D. West  
Chief Executive Officer

/s/ Steven A. Seiberg

Steven A. Seiberg  
Chief Financial Officer

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