UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-Q

(Mark One)

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

For the quarterly period ended June 30, 2014

OR

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

For the transition period from _____ to _____

Commission file number **1-12830**

BioTime, Inc.

(Exact name of registrant as specified in its charter)

California	**94-3127919**
(State or other jurisdiction of incorporation or organization)	(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. T Yes o No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate website, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). x Yes o 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	o	Accelerated filer	T
Non-accelerated filer	o (Do not check if a smaller reporting company)	Smaller reporting company	o

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). o Yes T 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: 73,690,302 common shares, no par value, as of August 6, 2014

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 under Risk Factors in this Report. Words such as "expects," "may," "will," "anticipates," "intends," "plans," "believes," "seeks," "estimates," and similar expressions identify forward-looking statements.

References to "we" means BioTime, Inc. and its subsidiaries unless the context otherwise indicates.

The description or discussion, in this Form 10-Q, of any contract or agreement is a summary only and is qualified in all respects by reference to the full text of the applicable contract or agreement.

Item 1. Financial Statements

BIOTIME, INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED BALANCE SHEETS

	June 30, 2014 (Unaudited)	December 31, 2013
ASSETS		
CURRENT ASSETS		
Cash and cash equivalents	$ 15,721,508	$ 5,495,478
Inventory	257,929	178,694
Trade accounts and grants receivable, net	1,190,723	998,393
Prepaid expenses and other current assets	1,476,104	1,277,405
Total current assets	18,646,264	7,949,970
Equipment, net	2,982,973	2,997,733
Deferred license and consulting fees	391,584	444,833
Deposits	435,482	129,129
Other long-term assets	57,048	-
Intangible assets, net	43,472,089	46,208,085
TOTAL ASSETS	$ 65,985,440	$ 57,729,750
LIABILITIES AND EQUITY		
CURRENT LIABILITIES		
Accounts payable and accrued liabilities	$ 4,741,617	$ 6,722,624
Capital lease liability, current portion	57,500	-
Deferred license and subscription revenue, current portion	270,348	235,276
Total current liabilities	5,069,465	6,957,900
LONG-TERM LIABILITIES		
Deferred rent, net of current portion	20,112	35,997
Capital lease, net of current portion	57,500	-
Deferred tax liability, net	14,244,078	8,277,548
Other long-term liabilities	9,860	195,984
Total long-term liabilities	14,331,550	8,509,529
Commitments and contingencies		
STOCKHOLDERS' EQUITY		
Preferred shares, no par value, authorized 2,000,000 shares as of June 30, 2014 and December 31, 2013; 70,000 and nil issued and outstanding as of June 30, 2014 and December 31, 2013, respectively	3,500,000	-
Common shares, no par value, authorized 125,000,000 shares as of June 30, 2014 and December 31, 2013; 72,268,526 issued and 66,869,984 outstanding as of June 30, 2014 and 67,412,139 issued and 56,714,424 outstanding at December 31, 2013	199,944,402	203,456,401
Contributed capital	59,934	93,972
Accumulated other comprehensive (loss)/income	(85,134)	62,899
Accumulated deficit	(163,387,382)	(145,778,547)
Treasury stock at cost: 5,398,542 and 10,697,715 shares at June 30, 2014 and at December 31, 2013, respectively	(22,119,467)	(43,033,957)
BioTime stockholders' equity	17,912,353	14,800,768
Noncontrolling interest	28,672,072	27,461,553
Total stockholders' equity	46,584,425	42,262,321
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	$ 65,985,440	$ 57,729,750

See accompanying notes to the condensed consolidated interim financial statements.

BIOTIME, INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS
(UNAUDITED)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2014	2013	2014	2013
REVENUES:				
License fees	$ 300,079	$ 362,249	$ 594,582	$ 712,078
Royalties from product sales	76,109	103,315	173,996	210,914
Grant income	640,034	693,480	1,215,614	777,293
Sale of research products	90,478	57,281	189,068	124,005
Total revenues	1,106,700	1,216,325	2,173,260	1,824,290
Cost of sales	(251,265)	(180,811)	(383,179)	(363,560)
Gross Profit	855,435	1,035,514	1,790,081	1,460,730
EXPENSES:				
Research and development	(9,081,137)	(5,530,395)	(17,469,570)	(10,975,825)
General and administrative	(4,835,972)	(3,621,570)	(8,503,259)	(7,005,091)
Total operating expenses	(13,917,109)	(9,151,965)	(25,972,829)	(17,980,916)
Loss from operations	(13,061,674)	(8,116,451)	(24,182,748)	(16,520,186)
OTHER INCOME/(EXPENSES):				
Interest (expense)/income, net	(10,024)	579	(18,398)	1,522
Gain/(loss) on sale or write off of fixed assets	-	800	(8,576)	(710)
Other income/(expense), net	164,732	(80,541)	242,868	(109,520)
Total other expenses, net	154,708	(79,162)	215,894	(108,708)
LOSS BEFORE INCOME TAX BENEFIT	(12,906,966)	(8,195,613)	(23,966,854)	(16,628,894)
Deferred income tax benefit	1,513,258	-	2,862,284	-
NET LOSS	(11,393,708)	(8,195,613)	(21,104,570)	(16,628,894)
Net loss attributable to noncontrolling interest	1,873,518	645,848	3,495,735	1,346,503
NET LOSS ATTRIBUTABLE TO BIOTIME, INC.	(9,520,190)	(7,549,765)	(17,608,835)	(15,282,391)
Dividends on preferred shares	(34,038)	-	(34,038)	-
Net loss attributable to common shareholders	(9,554,228)	(7,549,765)	(17,642,873)	(15,282,391)
Unrealized gain/(loss) on available-for-sale assets	1,120	-	(1,530)	-
Foreign currency translation (loss)/gain	(74,831)	28,857	(182,071)	177,294
TOTAL COMPREHENSIVE NET LOSS	$ (9,593,901)	$ (7,520,908)	$ (17,792,436)	$ (15,105,097)
BASIC AND DILUTED NET LOSS PER COMMON SHARE	$ (0.16)	$ (0.14)	$ (0.29)	$ (0.29)
WEIGHTED AVERAGE NUMBER OF COMMON STOCK OUTSTANDING: BASIC AND DILUTED	61,498,164	53,791,434	59,886,748	52,490,767

See accompanying notes to the condensed consolidated interim financial statements.

BIOTIME, INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(UNAUDITED)

	Six Months Ended June 30,	
	2014	2013
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net loss attributable to BioTime, Inc.	$ (17,608,835)	$ (15,282,391)
Adjustments to reconcile net loss attributable to BioTime, Inc. to net cash used in operating activities:		
Depreciation expense	522,714	253,215
Amortization of intangible assets	2,735,996	1,285,145
Amortization of deferred consulting fees	18,993	32,559
Amortization of deferred license fees	54,750	54,750
Amortization of deferred rent	(10,080)	(4,446)
Amortization of deferred license, royalty and subscription revenues	(280)	(75,914)
Amortization of stock-based prepaid rent	42,293	-
Net loss allocable to noncontrolling interest	(3,495,735)	(1,346,503)
Stock-based compensation	2,212,141	1,351,795
Deferred income tax benefit	(2,862,284)	-
Loss on sale or write-off of equipment	21,031	710
Write-off for uncollectible receivables	(16,356)	-
Changes in operating assets and liabilities:		
Accounts receivable, net	(36,998)	(25,701)
Grant receivable	(132,876)	(269,365)
Inventory	(79,236)	(9,429)
Prepaid expenses and other current assets	(314,601)	(414,449)
Other long-term assets	-	(5,000)
Accounts payable and accrued liabilities	(2,034,852)	(30,865)
Deferred revenues	35,352	62,381
Other long-term liabilities	(186,386)	(41,731)
Net cash used in operating activities	(21,135,249)	(14,465,239)
CASH FLOWS FROM INVESTING ACTIVITIES:		
Purchase of equipment	(404,649)	(735,124)
Security deposit paid, net	(306,246)	(54,423)
Proceeds from the sale of equipment	4,000	-
Cash used in investing activities	(706,895)	(789,547)
CASH FLOWS FROM FINANCING ACTIVITIES:		
Employee options exercised	12,500	-
Director options exercised	207,000	-
Proceeds from issuance of common stock	14,724,107	23,810,421
Fees paid on sale of common stock	(302,123)	(747,907)
Proceeds from sale of treasury stock and subsidiary warrants	13,582,209	1,819,500
Proceeds from sale of preferred stock	3,500,000	-
Proceeds from sale of common shares of subsidiary	468,000	255,502
Net cash provided by financing activities	32,191,693	25,137,516
Effect of exchange rate changes on cash and cash equivalents	(123,519)	73,599
NET CHANGE IN CASH AND CASH EQUIVALENTS:	10,226,030	9,956,329
CASH AND CASH EQUIVALENTS:		
At beginning of the period	5,495,478	4,349,967
At end of the period	$ 15,721,508	$ 14,306,296
SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION:		
Cash paid during the period for interest	$ 18,655	$ -
SUPPLEMENTAL SCHEDULE OF NON CASH FINANCING AND INVESTING ACTIVITIES:		
Capital expenditure funded by capital lease borrowing	$ 115,000	$ -
Common shares issued for consulting services	$ -	$ 148,920
Common shares issued for rent	$ -	$ 242,726

See accompanying notes to the condensed consolidated interim financial statements.

1. Organization, Basis of Presentation, and Summary of Select Significant Accounting Policies

General – BioTime is a biotechnology company focused on the field of regenerative medicine; specifically human embryonic stem ("hES") cell and induced pluripotent stem ("iPS") cell technology. Regenerative medicine refers to therapies based on stem cell technology that are designed to rebuild cell and tissue function lost due to degenerative disease or injury. hES and iPS cells provide a means of manufacturing every cell type in the human body and therefore show considerable promise for the development of a number of new therapeutic products. BioTime and its subsidiaries plan to develop stem cell products for research and therapeutic use. BioTime's primary therapeutic products are based on its *HyStem*® hydrogel technology and include *Renevia*™ a product currently in clinical trials in Europe to facilitate cell transplantation; *ReGlyde*™ and *Premvia*™ for tendon and dermatological applications, respectively. Asterias Biotherapeutics, Inc. ("Asterias") is developing pluripotent stem-cell based therapies in neurology and oncology, including AST-OPC1 neural cells in spinal cord injury, multiple sclerosis and stroke, and AST-VAC2, a pluripotent stem cell-derived cancer vaccine. OncoCyte Corporation ("OncoCyte") is developing products and technologies to diagnose cancer. ES Cell International Pte Ltd. ("ESI"), a Singapore private limited company, is marketing hES cell lines and stem cell related research products in domestic and over-seas markets under the ESI BIO branding program. OrthoCyte Corporation ("OrthoCyte") is developing therapies to treat orthopedic disorders, diseases and injuries. ReCyte Therapeutics, Inc. ("ReCyte Therapeutics") is developing therapies to treat a variety of cardiovascular and related ischemic disorders, as well as products for research using cell reprogramming technology. Cell Cure Neurosciences Ltd. ("Cell Cure Neurosciences") is an Israel-based biotechnology company focused on developing stem cell-based therapies for retinal and neurological disorders, including the development of retinal pigment epithelial cells for the treatment of macular degeneration, and treatments for multiple sclerosis. LifeMap Sciences, Inc. ("LifeMap Sciences") markets, sells and distributes *GeneCard*®, the leading human gene database and an integrated database suite that includes *GeneCard*®, the *LifeMap Discovery*® database of embryonic development, stem cell research and regenerative medicine, and MalaCards, the human disease database. LifeMap Sciences' subsidiary LifeMap Solutions, Inc. is developing mobile health software products.

BioTime is focusing a portion of its efforts in the field of regenerative medicine on the development and sale of advanced human stem cell products and technologies that can be used by researchers at universities and other institutions, at companies in the bioscience and biopharmaceutical industries, and at other companies that provide research products to companies in those industries. Products for the research market generally can be sold without regulatory (FDA) approval, and are therefore relatively near-term business opportunities when compared to therapeutic products.

BioTime previously developed blood plasma volume expanders and related technology for use in surgery, emergency trauma treatment and other applications. BioTime's operating revenues are now derived primarily from research grants, from licensing fees and advertising from the marketing of the LifeMap Sciences database products, and from the sale of products for research.

The unaudited condensed consolidated interim balance sheet as of June 30, 2014, the unaudited condensed consolidated interim statements of operations and comprehensive loss for the three and six months ended June 30, 2014 and 2013, and the unaudited condensed consolidated interim statements of cash flows for the six months ended June 30, 2014 and 2013 have been prepared by BioTime's management in accordance with the instructions from Form 10-Q and 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 June 30, 2014 have been made. The consolidated balance sheet as of December 31, 2013 is derived from the Company's annual audited financial statements as of that date. The results of operations for the six months ended June 30, 2014 are not necessarily indicative of the operating results anticipated for the full year of 2014.

Certain information and footnote disclosures normally included in consolidated 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 ("SEC") except for the consolidated balance sheet as of December 31, 2013, 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 interim financial statements be read in conjunction with the annual audited consolidated financial statements and notes thereto included in BioTime's Form 10-K for the year ended December 31, 2013.

Principles of consolidation – BioTime's consolidated financial statements include the accounts of its subsidiaries. The following table reflects BioTime's ownership, directly or through one or more subsidiaries, of the outstanding shares of its subsidiaries.

Subsidiary	Field of Business	BioTime Ownership	Country
Asterias Biotherapeutics, Inc.	Research, development and commercialization of human therapeutic products from stem cells, focused initially in the fields of neurology and oncology	70.6%	USA
BioTime Asia, Limited	Stem cell products for research	81%	Hong Kong
Cell Cure Neurosciences Ltd.	Age-related macular degeneration Multiple sclerosis Parkinson's disease	62.5%	Israel
ES Cell International Pte Ltd	Stem cell products for research, including clinical grade cell lines produced under cGMP	100%	Singapore
LifeMap Sciences, Inc.	Genetic, disease, and stem cell databases	74.52%	USA
LifeMap Sciences, Ltd.	Stem cell database	(1)	Israel
LifeMap Solutions, Inc.	Mobile health software	(1)	USA
OncoCyte Corporation	Cancer diagnostics	75.3%	USA
OrthoCyte Corporation	Orthopedic diseases, including chronic back pain and osteoarthritis	100%	USA
ReCyte Therapeutics, Inc.	Vascular disorders, including cardiovascular-related diseases, ischemic conditions, vascular injuries Stem cell-derived endothelial and cardiovascular related progenitor cells for research, drug testing, and therapeutics	94.8%	USA

(1) LifeMap Sciences, Ltd. and LifeMap Solutions, Inc. are wholly-owned subsidiaries of LifeMap Sciences, Inc.

All material intercompany accounts and transactions have been eliminated in consolidation. The consolidated financial statements are presented in accordance with accounting principles generally accepted in the U.S. ("GAAP") and with the accounting and reporting requirements of SEC Regulation S-X. As of June 30, 2014, BioTime consolidated Asterias, ReCyte Therapeutics, OncoCyte, OrthoCyte, ESI, Cell Cure Neurosciences, BioTime Asia, Limited ("BioTime Asia"), LifeMap Sciences, LifeMap Sciences, Ltd., and LifeMap Solutions, Inc. ("LifeMap Solutions") as BioTime has the ability to control their operating and financial decisions and policies through its ownership, and the noncontrolling interest is reflected as a separate element of equity on BioTime's condensed consolidated balance sheets.

Certain significant risks and uncertainties – The operations of BioTime and its subsidiaries are subject to a number of factors that can affect their operating results and financial condition. Such factors include but are not limited to, the following: the results of clinical trials of their respective therapeutic product and medical device candidates; their ability to obtain FDA and foreign regulatory approval to market their respective therapeutic and medical device product candidates; their 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 their products; their ability to obtain additional financing and the terms of any such financing that may be obtained; their ability to negotiate favorable licensing or other manufacturing and marketing agreements for its products; the availability of ingredients used in their products; and the availability of reimbursement for the cost of their therapeutic products and medical devices (and related treatment) from government health administration authorities, private health coverage insurers, and other organizations.

Use of estimates – The preparation of condensed consolidated financial statements in conformity with GAAP 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 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 ASC 605-10 and records revenue when persuasive evidence of an arrangement exists, delivery has occurred or services have been rendered, the price is fixed or determinable, and collectability is reasonably assured. Grant income and the sale of research products are recognized as revenue when earned. Revenues from the sale of research products are primarily derived from the sale of hydrogels and stem cell products. Royalty revenues consist of product royalty payments. License fee revenues consist primarily of subscription and advertising revenue from our online databases which are recognized based upon respective subscription or advertising periods. Other license fees under certain license agreements were recognized during prior periods when earned and reasonably estimable. Royalties earned on product sales are recognized as revenue in the quarter in which the royalty reports are received from the licensee, rather than the quarter in which the sales took place. When BioTime is entitled to receive up-front nonrefundable licensing or similar fees pursuant to agreements under which BioTime has no continuing performance obligations, the fees are recognized as revenues when collection is reasonably assured. When BioTime receives up-front nonrefundable licensing or similar fees pursuant to agreements under which BioTime does have continuing performance obligations, the 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. Milestone payments, 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.

Cash and cash equivalents – BioTime considers all highly liquid investments purchased with an original maturity of three months or less to be cash equivalents.

Accounts receivable and allowance for doubtful accounts – Total trade receivables amounted to approximately $612,900 and $575,900 and grants receivable amounted to approximately $678,300 and $539,300 as of June 30, 2014 and December 31, 2013, respectively. Some of these amounts are deemed uncollectible; as such BioTime recognized allowance for doubtful accounts of approximately $100,500 and $116,800 as of June 30, 2014 and December 31, 2013, respectively. BioTime evaluates the collectability of its receivables based on a variety of factors, including the length of time receivables are past due and significant one-time events and historical experience. An additional reserve for individual accounts will be recorded if BioTime becomes aware of a customer's inability to meet its financial obligations, such as in the case of bankruptcy filings or deterioration in the customer's operating results or financial position. If circumstances related to customers change, estimates of the recoverability of receivables would be further adjusted.

Concentrations of credit risk – Financial instruments that potentially subject BioTime to significant concentrations of credit risk consist primarily of cash and cash equivalents. BioTime limits the amount of credit exposure of cash balances by maintaining its accounts in high credit quality financial institutions. Cash equivalent deposits with financial institutions may occasionally exceed the limits of insurance on bank deposits; however, BioTime has not experienced any losses on such accounts.

Inventory – Inventories are stated at the lower of cost or market. Cost, which includes amounts related to materials, labor, and overhead, is determined in a manner which approximates the first-in, first-out ("FIFO") method.

Equipment – Equipment is stated at cost. Equipment is being depreciated using the straight-line method over a period of 36 to 120 months. See Note 3.

Intangible assets – Intangible assets with finite useful lives are amortized over their estimated useful lives and intangible assets with indefinite lives are not amortized but rather are tested at least annually for impairment. Acquired in-process research and development intangible assets are accounted for depending on whether they were acquired as part of an acquisition of a business, or as assets that do not constitute a business. When acquired in conjunction with the acquisition of a business, these assets are considered to be indefinite-lived until the completion or abandonment of the associated research and development efforts and are capitalized as an asset. If and when development is complete, the associated assets would be deemed finite-lived and would then be amortized based on their respective estimated useful lives at that point in time. However, when acquired in conjunction with an acquisition of assets that do not constitute a business (such as the acquisition of assets from Geron), in accordance with the accounting rules in ASC 805-50, such intangible assets related to in-process research and development ("IPR&D") are expensed upon acquisition. See Note 8.

Treasury stock – BioTime accounts for BioTime common shares issued to subsidiaries for future potential working capital needs as treasury stock on the consolidated balance sheet. BioTime has the intent and ability to register any unregistered shares to support the marketability of the shares.

Warrants to purchase common stock – BioTime generally accounts for warrants issued in connection with equity financings as a component of equity. None of the warrants issued by BioTime as of June 30, 2014 include a conditional obligation to issue a variable number of shares; nor was there a deemed possibility that BioTime may need to settle the warrants in cash. If BioTime were to issue warrants with a conditional obligation to issue a variable number of shares or with the deemed possibility of a cash settlement, BioTime would record the fair value of the warrants as a liability at each balance sheet date and record changes in fair value in other income and expense in the consolidated statements of operations and comprehensive loss.

Cost of sales – BioTime accounts for the cost of research products acquired for sale and any royalties paid as a result of any revenues in accordance with the terms of the respective licensing agreements as cost of sales on the condensed consolidated statement of operations and comprehensive loss.

Patent costs – Costs associated with obtaining patents on products or technology developed are expensed as general and administrative expenses when incurred. This accounting is in compliance with guidance promulgated by the Financial Accounting Standards Board (the "FASB") regarding goodwill and other intangible assets.

Reclassification – Certain prior year amounts have been reclassified to conform to the current year presentation. Trade and grant receivables are now reported separately from prepaid expenses and other current assets.

Research and development – BioTime complies with FASB requirements governing accounting for research and development costs. Research and development costs are expensed when incurred, and consist principally of salaries, payroll taxes, consulting fees, research and laboratory fees, rent of research facilities, and license fees paid to third parties to acquire patents or licenses to use patents and other technology.

Foreign currency translation gain and Comprehensive loss – In countries in which BioTime operates, and the functional currency is other than the U.S. dollar, assets and liabilities are translated using published exchange rates in effect at the condensed consolidated balance sheet date. Revenues and expenses and cash flows are translated using an approximate weighted average exchange rate for the period. Resulting translation adjustments are recorded as a component of accumulated other comprehensive loss on the condensed consolidated balance sheet. For the three and six months ended June 30, 2014 comprehensive loss includes foreign currency translation loss of $74,831 and loss of $182,071, respectively and unrealized gain of $1,120 and unrealized loss of $1,530, respectively on Geron common shares held by Asterias as of June 30, 2014. The unrealized gain/loss from the Geron shares is a component of comprehensive loss because these shares are considered marketable equity securities that are available-for-sale. For the three and six months ended June 30, 2013, comprehensive net loss includes foreign currency translation gain of $28,857 and $177,294, respectively.

Income taxes – BioTime accounts for income taxes in accordance with GAAP requirements, which prescribe the use of the asset and liability method, whereby deferred tax asset or liability account balances are calculated at the balance sheet date using current tax laws and rates in effect. Valuation allowances are established when necessary to reduce deferred tax assets when it is more likely than not that a portion or all of the deferred tax assets will not be realized. The FASB guidance also prescribes a recognition threshold and a measurement attribute for the financial statement recognition and measurement of tax positions taken or expected to be taken in a tax return. For those benefits to be recognized, a tax position must be more-likely-than-not sustainable upon examination by taxing authorities. Beginning October 1, 2013, Asterias will file separate U.S. federal and state income tax returns but effectively BioTime will combine Asterias' tax provision with BioTime's. BioTime recognizes accrued interest and penalties related to unrecognized tax benefits as income tax expense, however, no amounts were accrued for the payment of interest and penalties as of June 30, 2014 and 2013 respectively. BioTime files its income tax returns in the U.S. federal and various state and local and foreign jurisdictions. Generally, BioTime is no longer subject to income tax examinations by major taxing authorities for years before 2010. Any potential examinations may include questioning the timing and amount of deductions, the nexus of income among various tax jurisdictions and compliance with U.S. federal, state and local and foreign tax laws. Management does not expect that the total amount of unrecognized tax benefits will materially change over the next six months.

A deferred income tax benefit of approximately $2,862,000 was recorded for the six months ended June 30, 2014, of which approximately $2,442,000 was related to federal and $420,000 was related to state taxes. A deferred income tax benefit of approximately $3,280,000 was recorded for the year ended December 31, 2013, of which approximately $2,800,000 was related to federal and $480,000 was related to state taxes. No tax benefit had been recorded through September 30, 2013 because of the net operating losses incurred and a full valuation allowance had been provided.

In June 2014, Asterias' sale of BioTime shares resulted in a taxable gain of approximately $10.3 million and a tax payable of $4.1 million. This payable, however, is expected to be fully offset by Asterias' available net operating losses thus, resulting in no cash income taxes due from that sale. As of June 30, 2014, Asterias recorded a $4.7 million deferred tax liability for the temporary taxable difference in the basis of the investment still held by Asterias in BioTime stock. Both transactions were treated as a deemed distribution by Asterias and recorded against equity. BioTime net operating losses may not be offset against Asterias gains as the entities file separate tax returns and may not use each other's tax attributes.

Stock-based compensation – BioTime adopted accounting standards governing share-based payments, which require the measurement and recognition of compensation expense for all share-based payment awards made to directors and employees, including employee stock options, based on estimated fair values. Consistent with FASB guidelines, BioTime utilizes the Black-Scholes Merton option pricing model for valuing share-based payment awards. BioTime's determination of fair value of share-based payment awards on the date of grant using that option-pricing model is affected by BioTime's stock price as well as by assumptions regarding a number of highly complex and subjective variables. These variables include, but are not limited to, BioTime's expected stock price volatility over the term of the awards, and actual and projected employee stock option exercise behaviors. The expected term of options granted is derived from historical data on employee exercises and post-vesting employment termination behavior. The risk-free rate is based on the U.S. Treasury rates in effect during the corresponding period of grant. Although the fair value of employee stock options is determined in accordance with recent FASB guidance, changes in the subjective assumptions can materially affect the estimated value.

Impairment of long-lived assets – BioTime's long-lived assets, including intangible assets, are reviewed annually for impairment and whenever events or changes in circumstances indicate that the carrying amount of an asset may not be fully recoverable. If an impairment indicator is present, BioTime will evaluate recoverability by a comparison of the carrying amount of the assets to future undiscounted net cash flows expected to be generated by the assets. If the assets are impaired, the impairment recognized is measured by the amount by which the carrying amount exceeds the estimated fair value of the assets.

Deferred license and consulting fees – Deferred license and consulting fees consist of the value of warrants issued to third parties for services, and deferred license fees paid to acquire rights to use the proprietary technologies of third parties. The value of the warrants is being amortized over the period the services are being provided, and the license fees are being amortized over the estimated useful lives of the licensed technologies or licensed research products. See Note 5.

Loss per share – Basic net loss per share attributable to common shareholders is computed by dividing net loss attributable to the common shareholders of BioTime by the weighted-average number of common shares outstanding for the period. Diluted net loss per share reflects the weighted-average number of common shares outstanding plus the potential effect of dilutive securities or contracts which are convertible to common shares, such as options and warrants (using the treasury stock method) and shares issuable in future periods. Diluted loss per share for the three and six months ended June 30, 2014 excludes any effect from 5,398,542 treasury shares, 5,424,426 options and 9,195,002 warrants, and for the three and six months ended June 30, 2013 excludes 2,315,286 treasury shares, 4,394,634 options, and 1,751,615 warrants.

Fair value of financial instruments – The fair value of BioTime's assets and liabilities, which qualify as financial instruments under FASB guidance regarding disclosures about fair value of financial instruments, approximate the carrying amounts presented in the accompanying condensed consolidated balance sheets.

Effect of recently issued and recently adopted accounting pronouncements – The following accounting standards, which are not yet effective, are presently being evaluated by BioTime to determine the impact that they might have on its consolidated financial statements.

In May 2014, Financial Accounting Standards Board (the "FASB") issued Accounting Standards Update ("ASU") No. 2014-09 "Revenue from Contracts with Customers" (Topic 606). The guidance of this update effects any entity that either issues contracts with customers or transfers goods or services or enters into contracts for the transfer of non-financial assets. The core principal of the guidance is that an entity should recognize revenue to depict the transfer of promised goods or services to customers in the amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods and services. To achieve those core principals, the ASU specifies steps that the entity should apply for revenue recognition. The guidance also specifies the accounting for some costs to obtain or fulfill the contract with customer and disclosure requirements to enable users of financial statements to understand the nature, amount, timing, and uncertainty of revenue and cash flows arising from contracts with customers. For a public entity, ASU No. 2014-10 is effective for annual reporting periods beginning after December 15, 2016, including interim periods within that reporting period. Early application is not permitted. BioTime is currently evaluating the impact of the adoption of the ASU on its consolidated financial statements.

In June 2014, the FASB issued ASU No. 2014-12 "Compensation – Stock Compensation" (Topic 718). The ASU provides guidance for accounting for share-based payments when the terms of an award provide that a performance target could be achieved after the requisite service period. That is the case when an employee is eligible to retire or otherwise terminate employment before the end of the period in which a performance target (for example, profitability target) could be achieved and still be eligible to vest in the award if and when the performance target is achieved. The ASU requires a performance target that effects vesting and that could be achieved after the requisite service period be treated as a performance condition. Compensation cost should be recognized in the period in which it becomes probable that such performance condition would be achieved and should represent the compensation cost attributable to the periods for which the requisite service has already been rendered. For public business entities, the ASU is effective for annual reporting periods beginning after December 15, 2015, and interim periods therein. Early application is permitted. BioTime is in the process of evaluating the impact of adoption of the ASU on its consolidated financial statements.

2. Inventory

BioTime held $245,006 and $165,771 of inventory of finished goods products on-site at its corporate headquarters in Alameda, California at June 30, 2014 and December 31, 2013, respectively. Finished goods products of $12,923 were held by a third party on consignment at June 30, 2014 and December 31, 2013.

3. Equipment

At June 30, 2014 and December 31, 2013, equipment, furniture and fixtures were comprised of the following:

	June 30, 2014 (Unaudited)	December 31, 2013
Equipment, furniture and fixtures	$ 4,942,835	$ 4,431,586
Accumulated depreciation	(1,959,862)	(1,433,853)
Equipment, net	$ 2,982,973	$ 2,997,733

Equipment, furniture and fixtures includes $115,000 financed by capital lease borrowings. Depreciation expense amounted to $522,714 and $253,215 for the six months ended June 30, 2014 and 2013, respectively.

4. Intangible assets

At June 30, 2014 and December 31, 2013, intangible assets and intangible assets net of amortization were comprised of the following:

	June 30, 2014 (Unaudited)	December 31, 2013
Intangible assets	$ 54,719,918	$ 54,719,918
Accumulated amortization	(11,247,829)	(8,511,833)
Intangible assets, net	$ 43,472,089	$ 46,208,085

BioTime amortizes its intangible assets generally over an estimated period of 10 years on a straight line basis. BioTime recognized $2,735,996 and $1,285,145 in amortization expense of intangible assets during the six months ended June 30, 2014 and 2013, respectively.

5. Royalty Obligation and Deferred License Fees

BioTime amortizes deferred license fees over the estimated useful lives of the licensed technologies or licensed research products. BioTime is applying a 10 year estimated useful life to the technologies and products that it is currently licensing. The estimation of the useful life any technology or product involves a significant degree of inherent uncertainty, since the outcome of research and development or the commercial life a new product cannot be known with certainty at the time that the right to use the technology or product is acquired. BioTime will review its amortization schedules for impairments that might occur earlier than the original expected useful lives.

WARF License—Research Products

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 granted its subsidiary ReCyte Therapeutics a sublicense under its license from WARF. BioTime or ReCyte Therapeutics 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 paid licensing fees, totaling $295,000 in cash and BioTime stock, and reimbursed WARF for certain costs associated with preparing, filing, and maintaining the licensed patents. In addition, BioTime pays WARF $25,000 annually as a license maintenance fee. The licensing fees less the amortized portion were included in deferred license fees in BioTime’s condensed consolidated balance sheet as of June 30, 2014 and December 31, 2013.

ReCyte Therapeutics Licenses from ACT

On July 10, 2008, ReCyte Therapeutics entered into a License Agreement with Advanced Cell Technology, Inc. ("ACT"), under which ReCyte Therapeutics acquired exclusive worldwide rights to use ACT's "*ACTCellerate*™" technology for methods to accelerate the isolation of novel cell strains from pluripotent stem cells. ReCyte Therapeutics paid ACT a $250,000 license fee. ReCyte Therapeutics has assigned its rights under the License Agreement to BioTime. BioTime 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 license will expire in twenty years or upon the expiration of the last to expire of the licensed patents, whichever is later. The $250,000 license fee less the amortized portion is included in deferred license fees in BioTime's condensed consolidated balance sheet as of June 30, 2014 and December 31, 2013.

On August 15, 2008, ReCyte Therapeutics entered into a License Agreement and a Sublicense Agreement with ACT under which ReCyte Therapeutics 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 ReCyte Therapeutics 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, ReCyte Therapeutics paid ACT a $200,000 license fee 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 ReCyte Therapeutics 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 license will expire in twenty years or upon the expiration of the last-to-expire of the licensed patents, whichever is later. The $200,000 license fee payment less the amortized portion is included in deferred license fees in BioTime's condensed consolidated balance sheet as of June 30, 2014 and December 31, 2013.

Under the Kirin Sublicense, ReCyte Therapeutics has paid ACT a $50,000 license fee 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 ReCyte Therapeutics from sublicensing the Kirin Technology to third parties. ReCyte Therapeutics 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 ReCyte Therapeutics will be credited against other royalties payable to ACT under the Kirin Sublicense. The license will expire upon the expiration of the last to expire of the licensed patents, or May 9, 2016 if no patents are issued. The $50,000 license fee payment less the amortized portion is included in deferred license fees in BioTime's condensed consolidated balance sheet as of June 30, 2014 and December 31, 2013.

ReCyte Therapeutics License from RGI

On February 29, 2009, ReCyte Therapeutics entered into a Stem Cell Agreement with Reproductive Genetics Institute ("RGI"). In partial consideration of the rights and licenses granted to ReCyte Therapeutics by RGI, BioTime issued to RGI 32,259 common shares, having a market value of $50,000 on the effective date of the Stem Cell Agreement. This $50,000 payment less the amortized portion is included in deferred license fees in BioTime's condensed consolidated balance sheet as of June 30, 2014 and December 31, 2013.

OncoCyte License from SBMRI

Through BioTime's acquisition of the assets of Cell Targeting, Inc. during March 2011, BioTime acquired a royalty-bearing, exclusive, worldwide license from the Sanford-Burnham Medical Research Institute ("SBMRI") to use certain patents pertaining to homing peptides for preclinical research investigations of cell therapy treatments, and to enhance cell therapy products for the treatment and prevention of disease and injury in conjunction with BioTime's own proprietary technology or that of a third party. BioTime assigned the SBMRI license to OncoCyte during July 2011. OncoCyte will pay SBMRI a royalty of 4% on the sale of pharmaceutical products, and 10% on the sale of any research-use products that OncoCyte develops using or incorporating the licensed technology; and 20% of any payments OncoCyte receives for sublicensing the patents to third parties. The royalties payable to SBMRI may be reduced by 50% if royalties or other fees must be paid to third parties in connection with the sale of any products. An annual license maintenance fee is payable each year during the term of the license, and after commercial sales of royalty bearing products commence, the annual fee will be credited towards OncoCyte's royalty payment obligations for the applicable year. OncoCyte will reimburse SBMRI for 25% of the costs incurred in filing, prosecuting, and maintaining patent protection, subject to OncoCyte's approval of the costs. OncoCyte incurred no royalty expenses to date as of June 30, 2014.

Cell Cure Neurosciences License from Hadasit

Cell Cure Neurosciences has entered into an Amended and Restated Research and License Agreement with Hadasit Medical Research Services and Development, Ltd. ("Hadasit") under which Cell Cure Neurosciences received an exclusive license to use certain of Hadasit's patented technologies for the development and commercialization for hES cell-derived cell replacement therapies for retinal degenerative diseases. Cell Cure Neurosciences paid Hadasit 249,058 New Israeli Shekels as a reimbursement for patent expenses incurred by Hadasit, and pays Hadasit quarterly fees for research and product development services under a related Product Development Agreement.

If Teva Pharmaceutical Industries Ltd. ("Teva") exercises its option to license *OpRegen®* or *OpRegen®-Plus* under the terms of a Research and Exclusive License Option Agreement (the "Teva License Option Agreement"), Cell Cure Neurosciences will pay Hadasit 30% of all sublicensing payments made by Teva to Cell Cure Neurosciences, other than payments for research, reimbursements of patent expenses, loans or equity investments.

If Teva does not exercise its option and Cell Cure Neurosciences instead grants, subject to the terms of the Amended and Restated Research and License Agreement, a sublicense to any strategic partner comparable to Teva (a "Strategic Partner"), Cell Cure Neurosciences will pay Hadasit 30% of all sublicensing payments made by said Strategic Partner to Cell Cure Neurosciences, other than payments for research, reimbursements of patent expenses, loans or equity investments, provided that the minimum payments due to Hadasit in respect of amounts which constitute royalties based on sales of licensed products by the Strategic Partner, its affiliates or sublicensees shall not be less than 1.2% of the underlying net sales.

If Teva does not exercise its option and Cell Cure Neurosciences does not grant a sublicense to a Strategic Partner but instead commercializes *OpRegen®* or *OpRegen®-Plus* itself or sublicenses the Hadasit patents to a third party, other than Teva or a Strategic Partner, for the completion of development or commercialization of *OpRegen®* or *OpRegen®-Plus*, Cell Cure Neurosciences will pay Hadasit a 5% royalty on sales of products that utilize the licensed technology. Commencing in January 2017, Hadasit will be entitled to receive an annual minimum royalty payment of $100,000 that will be credited toward the payment of royalties and sublicense fees otherwise payable to Hadasit during the calendar year. If Cell Cure Neurosciences or a sublicensee other than Teva paid royalties during the previous year, Cell Cure Neurosciences may defer making the minimum royalty payment until December and will be obligated to make the minimum annual payment to the extent that royalties and sublicensing fee payments made during that year are less than $100,000.

If Teva does not exercise its option under the Teva License Option Agreement and Cell Cure Neurosciences does not grant a sublicense to a Strategic Partner but instead Cell Cure Neurosciences or a sublicensee other than Teva or a Strategic Partner conducts clinical trials of *OpRegen®* or *OpRegen®-Plus*, Hadasit will be entitled to receive certain milestone payments from Cell Cure Neurosciences upon the first attainment of certain clinical trial milestones in the process of seeking regulatory approval to market a product developed by Cell Cure Neurosciences using the licensed patents. Hadasit will receive $250,000 upon the enrollment of patients in the first Phase I clinical trial, $250,000 upon the submission of Phase II clinical trial data to a regulatory agency as part of the approval process, and $1 million upon the enrollment of the first patient in the first Phase III clinical trial. These milestone payments are creditable by Cell Cure Neurosciences against sublicensing receipts that are payable to Hadasit at the time of each milestone payment for said milestone payment, except that the $1 million milestone payment shall only be creditable by Cell Cure Neurosciences if it received the sublicensing receipts in the amount of $50 million.

BioTime License for the University of Utah

Through the merger of Glycosan into OrthoCyte during March 2011, BioTime acquired a license from the University of Utah to use certain patents in the production and sale of certain hydrogel products. Under the License Agreement, the scope of which was expanded by an amendment during August 2012, BioTime will pay a 3% royalty on sales of products and services performed that utilize the licensed patents. Commencing in 2014, BioTime is obligated to pay minimum royalties to the extent that actual royalties on products sales and services utilizing the patents are less than the minimum royalty amount. The minimum royalty amounts are $22,500 in 2014 and $30,000 each year thereafter during the term of the License Agreement. BioTime shall also pay the University of Utah 30% of any sublicense fees or royalties received under any sublicense of the licensed patents.

BioTime will pay a $225,000 milestone fee within six months after the first sale of a "tissue engineered product" that utilizes a licensed patent. A tissue engineered product is defined as living human tissues or cells on a polymer platform, created at a place other than the point-of-care facility, for transplantation into a human patient.

BioTime License from Cornell University

On August 23, 2011, BioTime entered into a License Agreement with Cornell University for the worldwide development and commercialization of technology for the differentiation of hES cells into vascular endothelial cells.

Cornell will be entitled to receive a nominal initial license fee and nominal annual license maintenance fees. The obligation to pay annual license maintenance fees will end when the first human therapeutic products developed under the license is sold. BioTime will pay Cornell a milestone payment upon the achievement of a research product sale milestone amount, and will make milestone payments upon the attainment of certain FDA approval milestones for therapeutic products developed under the license, including (i) the first Phase II clinical trial dosing of a human therapeutic product, (ii) the first Phase III clinical trial dosing of a human therapeutic product; (iii) FDA approval of the first human therapeutic product for age-related vascular disease; and (iv) FDA approval of the first human therapeutic product for cancer.

BioTime will pay Cornell royalties on the sale of products and services using the license, and will share with Cornell a portion of any cash payments, other than royalties, that BioTime receives for the grant of sublicenses to non-affiliates. The potential royalty percentage rates to be paid to Cornell will be in the low to mid-single digit range depending on the product. BioTime will also reimburse Cornell for costs related to the patent applications and any patents that may issue that are covered by the license.

In conjunction with the License Agreement, BioTime also entered into a Sponsored Research Agreement under which scientists at Weill Cornell Medical College will engage in certain research for BioTime over a three year period beginning August 2011.

Asterias License from WARF

Asterias has entered into a Non-Exclusive License Agreement with WARF under which Asterias was granted a worldwide non-exclusive license under certain WARF patents and WARF-owned embryonic stem cell lines to develop and commercialize therapeutic, diagnostic and research products. The licensed patents include patents covering primate embryonic stem cells as compositions of matter, as well as methods for growth and differentiation of primate embryonic stem cells. The licensed stem cell lines include the H1, H7, H9, H13 and H14 hES cell lines.

In consideration of the rights licensed, Asterias has agreed to pay WARF an upfront license fee, payments upon the attainment of specified clinical development milestones, royalties on sales of commercialized products, and, subject to certain exclusions, a percentage of any payments that Asterias may receive from any sublicenses that it may grant to use the licensed patents or stem cell lines.

The license agreement will terminate with respect to licensed patents upon the expiration of the last licensed patent to expire. Asterias may terminate the license agreement at any time by giving WARF prior written notice. WARF may terminate the license agreement if payments of earned royalties, once begun, cease for a specified period of time or if Asterias and any third parties collaborating or cooperating with Asterias in the development of products using the licensed patents or stem cell lines fail to spend a specified minimum amount on research and development of products relating to the licensed patents or stem cell lines for a specified period of time. WARF also has the right to terminate the license agreement if Asterias breaches the license agreement or becomes bankrupt or insolvent or if any of the licensed patents or stem cell lines are offered to creditors.

Asterias License from the University of California

Geron assigned to Asterias its Exclusive License Agreement with The Regents of the University of California for patents covering a method for directing the differentiation of multipotential hES cells to glial-restricted progenitor cells that generate pure populations of oligodendrocytes for remyelination and treatment of spinal cord injury. Pursuant to this agreement, Asterias has an exclusive worldwide license under such patents, including the right to grant sublicenses, to create products for biological research, drug screening, and human therapy using the licensed patents. Under the license agreement, Asterias will be obligated to pay the university a royalty of 1% from sales of products that are covered by the licensed patent rights, and a minimum annual royalty of $5,000 starting in the year in which the first sale of a product covered by any licensed patent rights occurs, and continuing for the life of the applicable patent right under the agreement. The royalty payments due are subject to reduction, but not by more than 50%, to the extent of any payments that Asterias may be obligated to pay to a third party for the use of patents or other intellectual property licensed from the third party in order to make, have made, use, sell, or import products or otherwise exercise its rights under the Exclusive License Agreement. Asterias will be obligated to pay the university 7.5% of any proceeds, excluding debt financing and equity investments, and certain reimbursements, that its receives from sublicensees, other than Asterias' affiliates and joint ventures relating to the development, manufacture, purchase, and sale of products, processes, and services covered by the licensed patent. The license agreement will terminate on the expiration of the last-to-expire of the university's issued licensed patents. If no further patents covered by the license agreement are issued, the license agreement would terminate in 2024. The university may terminate the agreement in the event of Asterias' breach of the agreement. Asterias can terminate the agreement upon 60 days' notice.

Asterias Sublicense from Geron

Asterias has received from Geron an exclusive sublicense under certain patents owned by the University of Colorado's University License Equity Holdings, Inc. relating to telomerase (the "Telomerase Sublicense"). The Telomerase Sublicense entitles Asterias to use the technology covered by the patents in the development of VAC1 and VAC2 as immunological treatments for cancer. Under the Telomerase Sublicense, Asterias paid Geron a one-time upfront license fee of $65,000, and will pay Geron an annual license maintenance fee of $10,000 due on each anniversary of the effective date of the Telomerase Sublicense, and a 1% royalty on sales of any products that Asterias may develop and commercialize that are covered by the sublicensed patents. The Telomerase Sublicense will expire concurrently with the expiration of Geron's license. That license will terminate during April 2017 when the licensed patents expire. The Telomerase Sublicense may also be terminated by Asterias by giving Geron 90 days written notice, by Asterias or by Geron if the other party breaches its obligations under the sublicense agreement and fails to cure their breach within the prescribed time period, or by Asterias or by Geron upon the filing or institution of bankruptcy, reorganization, liquidation or receivership proceedings, or upon an assignment of a substantial portion of the assets for the benefit of creditors by the other party. See Note 8.

6. Accounts Payable and Accrued Liabilities

At June 30, 2014 and December 31, 2013, accounts payable and accrued liabilities consisted of the following:

	June 30, 2014 (Unaudited)	December 31, 2013
Accounts payable	$ 1,880,095	$ 3,887,950
Accrued bonuses	207,250	600,000
Other accrued liabilities	2,654,272	2,234,674
	$ 4,741,617	$ 6,722,624

7. Equity

Preferred Shares

BioTime is authorized to issue 2,000,000 shares of preferred stock. The preferred shares may be issued in one or more series as the board of directors may by resolution determine. The board of directors is authorized to fix the number of shares of any series of preferred shares and to determine or alter the rights, preferences, privileges, and restrictions granted to or imposed on the preferred shares as a class, or upon any wholly unissued series of any preferred shares. The board of directors may, by resolution, increase or decrease (but not below the number of shares of such series then outstanding) the number of shares of any series of preferred shares subsequent to the issue of shares of that series.

As of June 30, 2014, BioTime has 70,000 outstanding shares of Series A Convertible Preferred Stock ("Series A Preferred Stock"). The Series A Preferred Stock carries a cumulative annual 3% preferred dividend or $1.50 per share, in preference to BioTime common shares. Each share of Series A Preferred Stock is convertible, at the election of the holder, into BioTime common shares at a conversion price of $4.00 per share, a current conversion ratio of 12.5 common shares for each share of Series A Preferred Stock.

In addition to the preferred dividend, the Series A Preferred Stock will be entitled to participate with BioTime common shares in any dividends or distributions on common shares (other than dividends and distributions of common shares resulting in an adjustment of the conversion price) as if all shares of Series A Preferred Stock were then converted into common shares.

All outstanding Series A Preferred Stock will automatically be converted into common shares on March 4, 2019, or if holders of a majority of the outstanding shares of Series A Preferred Stock, voting as a class, approve or consent to a conversion. The conversion price is subject to prorata adjustment in the event of a subdivision or reclassification of the common shares into a greater number of shares, a stock dividend paid in common shares, or a stock combination or reclassification of the common shares into a smaller number of shares.

The Series A Preferred Stock will be entitled to vote with common shares on all matters submitted to common shareholders for approval. Each share of Series A Preferred Stock will be entitled to a number of votes equal to the number of common shares into which it could then be converted. The Series A Preferred Stock will also vote as a separate class on certain matters affecting those shares.

In the event of a liquidation or dissolution of BioTime, holders of Series A Preferred Stock will be entitled to receive payment of any accrued but unpaid preferred dividends before any assets may be distributed to holders of common shares. After payment of the accrued dividends, the Series A Preferred Stock will participate with the common shares in the distribution of any assets available to shareholders, as if the Series A Preferred Stock was then converted into common shares.

Common Shares

BioTime is authorized to issue 125,000,000 common shares with no par value. As of June 30, 2014, BioTime had issued 72,268,526 common shares and outstanding 66,869,984 common shares.

Options and Warrants

BioTime has an Equity Incentive Plan pursuant to which it may issue options to purchase, or may issue as "restricted stock," up to a total of 4,000,000 common shares. During the six months ended June 30, 2014 and 2013, BioTime granted 1,260,000 and 1,155,000 options, respectively, under its 2012 Equity Incentive Plan. At June 30, 2014, a total of 5,424,426 options were outstanding under the Equity Incentive Plan and BioTime's 2002 Stock Option Plan.

At June 30, 2014, BioTime had warrants outstanding entitling the holders to purchase a total of 9,195,002 BioTime common shares at an exercise price of $5.00 per share. Asterias currently holds 8,000,000 of the warrants but will distribute them to the holders of its Series A common stock after Geron Corporation distributes, on a pro rata basis and subject to applicable legal requirements and certain other limitations, those shares of Series A common stock to its stockholders. The number of common shares and exercise price will be proportionally adjusted in the event of a stock split, stock dividend, combination, or similar recapitalization of the common shares, and upon the occurrence of certain other transactions.

During the six months ended June 30, 2014, 115,000 options and no warrants were exercised.

8. Asset Contribution Agreement

On January 4, 2013, BioTime and Asterias entered into an Asset Contribution Agreement with Geron Corporation ("Geron") pursuant to which BioTime and Geron agreed to concurrently contribute certain assets to Asterias in exchange for shares of Asterias common stock. The transaction closed on October 1, 2013.

Transfer of BioTime Assets

Under the Asset Contribution Agreement, BioTime contributed to Asterias 8,902,077 BioTime common shares registered for re-sale under the Securities Act of 1933, as amended, warrants to subscribe for and purchase 8,000,000 additional BioTime common shares (the "BioTime Warrants") exercisable for a period of five years at a price of $5.00 per share, subject to pro rata adjustment for certain stock splits, reverse stock splits, stock dividends, recapitalizations and other transactions; a 10% common stock interest in BioTime's subsidiary OrthoCyte; a 6% ordinary share interest in BioTime's subsidiary Cell Cure Neurosciences; and a quantity of certain hES cell lines produced under "good manufacturing practices" sufficient to generate master cell banks, and non-exclusive, world-wide, royalty-free licenses to use those cell lines and certain patents pertaining to stem cell differentiation technology for any and all purposes. In return, Asterias issued to BioTime 21,773,340 shares of its Series B common stock, par value $0.0001 per share ("Series B Shares"), and warrants to purchase 3,150,000 Series B Shares, exercisable for a period of three years from the date of issue at an exercise price of $5.00 per share. In addition, BioTime cancelled Asterias' obligations to repay the principal amount of a loan in the amount of $5,000,000 arising from cash financing provided to Asterias by BioTime during 2013 prior to the closing of the asset contribution transaction under the Asset Contribution Agreement.

Because Asterias is a subsidiary of BioTime, the transfer of assets from BioTime was accounted for as a transaction under common control. Non-monetary assets received by Asterias were recorded at their historical cost basis amounts with BioTime. Monetary assets were recorded at fair value. The difference between the value of assets contributed by BioTime and the fair value of consideration issued to BioTime was recorded as an additional contribution by BioTime, in additional paid-in capital.

The assets transferred by BioTime and the related consideration paid were recorded as follows:

Consideration transferred to BioTime:	
Asterias Series B shares	$ 52,164,568
Warrants to purchase Asterias Series B shares	2,012,481
Excess of contributed assets' value over consideration	4,800,063
Total consideration issued	$ 58,977,112
Assets transferred by BioTime:	
BioTime common shares, at fair value	$ 34,985,163
BioTime Warrants, at fair value	18,276,406
Cancellation of outstanding obligation to BioTime	5,000,000
Investment in affiliates, at cost	415,543
Geron asset acquisition related transaction costs paid by BioTime	300,000
Total assets transferred	$ 58,977,112

The fair value of the Asterias Series B shares issued was estimated at $2.40 based on the Asterias enterprise value as determined on January 4, 2013, at the time the Asset Contribution Agreement was negotiated and executed by its parties, and as adjusted for subsequent changes in fair values of assets the parties agreed to contribute. The fair value of the warrants to purchase Asterias Series B shares was computed using a Black Scholes Merton option pricing model, which utilized the following assumptions: expected term equal to the contractual term of three years, which is equal to the contractual life of the warrants; risk-free rate of 0.63%; 0% expected dividend yield; 69.62% expected volatility based on the average historical common stock volatility of BioTime and Geron, which were used as Asterias' common stock does not have a trading history; a stock price of $2.40; and an exercise price of $5.00.

BioTime common shares were valued at $3.93 using the closing price per BioTime common shares on the NYSE MKT on October 1, 2013. The fair value of the BioTime Warrants was computed using a Black Scholes Merton option pricing model, which utilized the following assumptions: expected term equal to the contractual term of five years, which is equal to the contractual life of the warrants; risk-free rate of 1.42%; 0% expected dividend yield; 77.63% expected volatility based on historical common stock volatility of BioTime; a stock price of $3.93; and an exercise price of $5.00.

The investment in OrthoCyte and Cell Cure Neurosciences stock represents a non-monetary asset and was recorded at BioTime's historical cost because BioTime is a common parent to Asterias and those two BioTime subsidiaries.

Geron Assets Acquisition

Under the Asset Contribution Agreement, Geron contributed to Asterias certain patents, patent applications, trade secrets, know-how and other intellectual property rights with respect to the technology of Geron directly related to the research, development and commercialization of certain products and know-how related to human embryonic stem ("hES") cells; certain biological materials, reagents, laboratory equipment; as well as clinical trial documentation, files and data, primarily related to GRNOPC1 clinical trials for spinal cord injury and VAC1 clinical trials for acute myelogenous leukemia. Asterias assumed all obligations related to such assets that would be attributable to periods, events or circumstances after the Asset Contribution closing date, including those related to certain patent interference proceedings and appeals in Federal District Court that have subsequently been settled.

As consideration for the acquisition of assets from Geron, Asterias issued to Geron 6,537,779 shares of Series A common stock, par value $0.0001 per share ("Series A Shares"), which Geron had agreed to distribute to its stockholders, on a pro rata basis, subject to applicable legal requirements and certain other limitations (the "Series A Distribution"). Asterias is also obligated to distribute to the holders of its Series A Shares the 8,000,000 shares of BioTime Warrants contributed to Asterias by BioTime. Asterias will distribute the BioTime Warrants as promptly as practicable after notice from Geron that the Series A Distribution has been completed.

In addition, Asterias agreed to bear certain transaction costs in connection with the Geron asset acquisition. Such transaction costs were allocated to acquisition of assets in the amount of $1,519,904 and issuance of equity in the amount of $541,800.

The assets contributed to Asterias by Geron did not include workforce or any processes to be applied to the patents, biological materials, and other assets acquired, and therefore did not constitute a business. Accordingly, the acquisition of the Geron assets has been accounted for as an acquisition of assets in accordance with the relevant provisions of Accounting Standards Codification (ASC) 805-50. Total consideration payable by Asterias, including transaction costs, has been allocated to the assets acquired based on relative fair values of those assets as of the date of the transaction, October 1, 2013, in accordance with ASC 820, Fair Value Measurement.

The assets acquired from Geron and the related consideration were recorded as follows:

Consideration paid to Geron:	
Asterias Series A shares, net of share issuance costs of $541,800	$ 15,121,222
Obligation to distribute BioTime Warrants	18,276,406
Transaction and other costs	1,519,904
Total consideration paid	$ 34,917,532
Assets acquired from Geron (preliminary allocation):	
Patents and other intellectual property rights related to hES cells	$ 29,017,009
Deferred tax liability arising from difference in book versus tax basis on Geron intangible assets acquired	(11,558,243)
IPR&D expensed upon acquisition	17,458,766
Total assets and in-process research and development acquired	$ 34,917,532

The fair value of the Asterias Series A shares issued was estimated at $2.40 based on the estimated Asterias enterprise value as determined by parties at the time the Asset Contribution Agreement was negotiated and executed by its parties on January 4, 2013, as adjusted for subsequent changes in fair values of assets the parties agreed to contribute.

The difference between the fair value of assets contributed by Geron and the fair value of consideration issued to Geron was recorded as an additional contribution by Geron, in additional paid-in capital, because the fair value of the assets transferred by Geron was more reliably determined.

Assets acquired from Geron consist primarily of patents and other intellectual property rights related to hES cells which Asterias intends to license to various parties interested in research, development and commercialization of hES cells technologies, and IPR&D, which includes biological materials, reagents, clinical trial documentation, files and data related primarily to certain clinical trials previously conducted by Geron, which Geron discontinued in November 2011.

Intangible assets related to IPR&D represent the value of incomplete research and development projects which the company intends to continue. In accordance with the accounting rules in ASC 805, such assets, when acquired in conjunction with acquisition of a business, are considered to be indefinite-lived until the completion or abandonment of the associated research and development efforts and are capitalized as an asset. If and when development is complete, the associated assets would be deemed finite-lived and would then be amortized based on their respective estimated useful lives at that point in time. However, when acquired in conjunction with an acquisition of assets that do not constitute a business (such as the acquisition of assets from Geron), in accordance with the accounting rules in ASC 805-50, such intangible assets related to IPR&D are expensed upon acquisition.

The values of the acquired assets were estimated at October 1, 2013 based upon a preliminary review of those assets which took into account factors such as the condition of the cells, cell lines and other biological materials being contributed, the stage of development of particular technology and product candidates related to patents, patent applications, and know-how, the intended use of these assets and the priority assigned to the development of product candidates to which those assets relate, and the assessment of the estimated useful lives of patents. The amounts allocated to patents and other intellectual property rights that Asterias intends to license were capitalized as intangible assets and are being amortized over an estimated useful life period of 10 years. The amounts allocated to IPR&D were expensed at the time of acquisition of the related assets in accordance with the requirements of ASC 805-50. The allocation was based on the relative fair value of assets eligible for capitalization and the fair value of assets representing IPR&D before assessing the deferred tax liability arising from the difference in book versus tax basis on Geron intangible assets acquired, which management estimated to be approximately equal. Accordingly, $17,458,766 was capitalized as of December 31, 2013, and $17,458,766 was expensed. These amounts are preliminary as management has not yet completed a detailed assessment and valuation of the acquired assets. Such assessment and valuation is expected to be completed during the current fiscal year. Accordingly, the amounts included in capitalized intangible assets and expensed IPR&D as of December 31, 2013 are subject to adjustments which could be material.

Asterias is also obligated to pay Geron royalties on the sale of products, if any, that are commercialized in reliance upon patents acquired from Geron, at the rate of 4% of net sales.

Stock and Warrant Purchase Agreement with Romulus

On January 4, 2013, in connection with entering into the Asset Contribution Agreement, Asterias entered into a Stock and Warrant Purchase Agreement with Romulus Films, Ltd ("Romulus") pursuant to which Romulus agreed to purchase 2,136,000 Series B Shares and warrants to purchase 350,000 additional Series B Shares for $5,000,000 in cash upon the consummation of the acquisition of assets under the Asset Contribution Agreement. The warrants are exercisable for a period of three years from the date of issuance at an exercise price of $5.00 per share. On October 1, 2013, the shares and warrants were issued in exchange for $5,000,000 in cash.

9. Unaudited Pro Forma Interim Financial Information – Six Months Ended June 30, 2014 and 2013

The following unaudited pro forma information gives effect to the asset acquisition through the Asset Contribution Agreement with Geron as if the transaction took place on January 1, 2013. The pro forma information does not necessarily reflect the results of operations that would have occurred had the entities been a single company during the periods presented.

	Six Months Ended June 30,	
	2014	2013
Gross Profit	$ 1,790,081	$ 473,070
Net loss available to common shareholders	$ (17,608,835)	$ (25,568,831)
Net loss per common share – basic and diluted	$ (0.29)	$ (0.42)

10. Sales of BioTime Common Shares by Subsidiaries

Certain BioTime subsidiaries hold BioTime common shares that the subsidiaries received from BioTime in exchange for capital stock in the subsidiaries. The BioTime common shares held by subsidiaries are treated as treasury stock by BioTime and BioTime does not recognize a gain or loss on the sale of those shares by its subsidiaries.

During June 2014, Asterias sold 5,000,000 of its BioTime common shares with warrants to purchase 5,000,000 shares of Asterias Series B common stock to two investors for $12,500,000 in cash. Broadwood Partners, L.P., BioTime's largest shareholder, purchased 1,000,000 of the BioTime common shares with 1,000,000 Asterias warrants. One of BioTime's directors, Neal C. Bradsher, is President of Broadwood Partners, L.P., the investment manager of Broadwood Partners, L.P., and one of Asterias' directors, Richard T. LeBuhn, is Senior Vice President of Broadwood Capital, Inc. The other 4,000,000 BioTime common shares with 4,000,000 Asterias warrants were purchased by a trust previously established by George Karfunkel. Mr. Karfunkel beneficially owns more than 5% of the outstanding common shares of BioTime. Asterias allocated the proceeds received from the sale of the BioTime common stock and Asterias warrants based on their relativie fair values resulting in $9,316,109 and $3,183,891 of the proceeds being allocated to the common shares and warrants, respectively.

11. Subsequent Events

On July 21, 2014, BioTime's Chief Executive Officer, Michael D. West, and BioTime' Senior Vice President, Chief Operating Officer, and Chief Financial Officer, Robert W. Peabody, exercised BioTime stock options to purchase 1,470,400 and 475,000 BioTime common shares, respectively, at an exercise price of $0.50 per share. Dr. West paid the exercise price of his options and a portion of his income tax withholding obligation through the delivery of 434,013 BioTime common shares to BioTime. Mr. Peabody paid the exercise price of his options through the delivery of 89,623 BioTime common shares to BioTime. The BioTime common shares had a market value of $2.65 per share on that date. Dr. West and Mr. Peabody also sold 270,000 and 100,000 BioTime common shares, respectively, on that date to a BioTime shareholder in a privately negotiated transaction to raise cash proceeds needed to pay additional taxes arising from the exercise of their stock options.

During July 2014, BioTime's subsidiary OncoCyte expanded the clinical development of its urine-based bladder cancer diagnostic test by initiating a multi-site clinical trial that will involve up to 1,200 patient samples obtained from at least four large urology clinics located throughout the United States. The goal of the clinical trial is to compare the performance of OncoCyte's proprietary *PanC-Dx*™ bladder cancer markers to the performance of cystoscopy. Investigators in the trial are collecting urine samples from patients undergoing cystoscopy for the diagnosis of either primary or recurrent bladder cancer. Cystoscopy and biopsy results will be compared with the results of OncoCyte's proprietary diagnostic test panel in determining the overall performance of the *PanC-Dx*™ markers. *PanC-Dx*™ is a class of non-invasive cancer diagnostics based on OncoCyte's proprietary set of cancer markers.

On August 7, 2014 we were notified by the U.S. Food and Drug Administration of a premarket approval of our 510 (k) application for *Premvia*™, a *HyStem*®-based product indicated for the management of wounds including: partial-thickness, full-thickness, tunneling wounds, pressure ulcers, venous ulcers, diabetic ulcers, chronic vascular ulcers, donor skin graft sites, post-Moh's surgery, post-laser surgery, podiatric wounds, wound dehiscence, abrasions, lacerations, second degree burns, skin tears, and draining wounds.

We evaluated subsequent events through the issuance date of the financial statements. We are not aware of any significant events, that occurred subsequent to the balance sheet date but prior to the filing of this Quarterly Report on Form 10-Q that would have a material impact on our financial statements.

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

The following Management's Discussion and Analysis of Financial Condition and Results of Operations is intended to provide information necessary to understand our condensed consolidated financial statements for the three and six months ended June 30, 2014 and 2013, and highlight certain other information which, in the opinion of management, will enhance a reader's understanding of our financial condition, changes in financial condition and results of operations. In particular, the discussion is intended to provide an analysis of significant trends and material changes in our financial position and the operating results of our business during the quarter ended June 30, 2014 as compared to the quarter ended June 30, 2013. This discussion should be read in conjunction with our Condensed Consolidated Financial Statements for the three and six months ended June 30, 2014 and 2013 and related notes included elsewhere in this Quarterly Report on Form 10-Q. These historical financial statements may not be indicative of our future performance. This Management's Discussion and Analysis of Financial Condition and Results of Operations contains a number of forward-looking statements, all of which are based on our current expectations and could be affected by the uncertainties and risks described throughout this filing, particularly in "Item 1A. Risk Factors," and in our Annual Report on Form 10-K for the year ended December 31, 2013.

Overview

We are a biotechnology company focused on the emerging field of regenerative medicine. Our core technologies center on stem cells capable of becoming all of the cell types in the human body, a property called pluripotency. Products made from these "pluripotent" stem cells are being developed by us and our subsidiaries, for use in a variety of fields of medicine. Four of our subsidiaries, Asterias Biotherapeutics, Inc. ("Asterias"), Cell Cure Neurosciences, Ltd ("Cell Cure Neurosciences"), OrthoCyte Corporation ("OrthoCyte"), and ReCyte Therapeutics, Inc. ("ReCyte") are focused on developing cell based therapeutic products for diseases such as neurological disorders, cancer, age related macular degeneration, orthopedic disorders, and age-related cardiovascular disease. Our commercial strategy targets near-term opportunities such as: *Renevia*™ a product currently in clinical trials in Europe to facilitate cell transplantation; *ReGlyde*™ and *Premvia*™ for tendon and dermatological applications, respectively; *PanC-Dx*™, a family of novel blood and urine-based cancer screens; our current line of research products including *PureStem*® cell lines, associated *ESpan*™ culture media, human embryonic stem cell lines derived by our subsidiary ESI under current good manufacturing practices ("cGMP"); *HyStem*® hydrogel products; the LifeMap Database Suite and mobile health software products.

"Regenerative medicine" refers to an emerging field of therapeutic product development that may allow all human cell and tissue types to be manufactured on an industrial scale. This new technology is made possible by the isolation of human embryonic stem ("hES") cells, and by the development of "induced pluripotent stem ("iPS") cells" which are created from regular cells of the human body using technology that allows adult cells to be "reprogrammed" into cells with pluripotency similar to hES-like cells. These pluripotent hES and iPS cells have the unique property of being able to branch out into each and every kind of cell in the human body, including the cell types that make up the brain, the blood, the heart, the lungs, the liver, and other tissues. Unlike adult-derived stem cells that have limited potential to become different cell types, pluripotent stem cells may have vast potential to supply an array of new regenerative therapeutic products, especially those targeting the large and growing markets associated with age-related degenerative disease. Unlike pharmaceuticals that require a molecular target, therapeutic strategies in regenerative medicine are generally aimed at regenerating affected cells and tissues, and therefore may have broader applicability. Regenerative medicine represents a revolution in the field of biotechnology with the promise of providing therapies for diseases previously considered incurable.

The field of regenerative medicine includes a broad range of disciplines, including tissue banking, cellular therapy, gene therapy, and tissue engineering. Our commercial efforts in regenerative medicine include the development and sale of products designed for research applications in the near term as well as products designed for diagnostic and therapeutic applications in the medium and long term.

We have also developed and licensed manufacturing and marketing rights to *Hextend*®, a physiologically balanced blood plasma volume expander used for the treatment of hypovolemia in surgery, emergency trauma treatment, and other applications. Hypovolemia is a condition caused by low blood volume, often from blood loss during surgery or from injury. *Hextend*® maintains circulatory system fluid volume and blood pressure and helps sustain vital organs during surgery or when a patient has sustained substantial blood loss due to an injury. *Hextend*® is the only blood plasma volume expander that contains lactate, multiple electrolytes, glucose, and a medically approved form of starch called hetastarch. *Hextend*® is sterile, so its use avoids the risk of infection. Health insurance reimbursements and HMO coverage now include the cost of *Hextend*® used in surgical procedures.

Hextend® is manufactured and distributed in the United States by Hospira, Inc., and in South Korea by CJ Health Corporation ("CJ Health"), a subsidiary of Cheil Jedang Corp., under license from us.

The following table shows our subsidiaries, their respective principal fields of business, our percentage ownership as at June 30, 2014, and the country where their principal business is located:

Subsidiary	Field of Business	BioTime Ownership	Country
Asterias Biotherapeutics, Inc.	Research, development and commercialization of human therapeutic products from stem cells focused initially in the fields of neurology and oncology	70.6%	USA
BioTime Asia, Limited	Stem cell products for research	81%	Hong Kong
Cell Cure Neurosciences Ltd.	Age-related macular degeneration Multiple sclerosis Parkinson's disease	62.5%	Israel
ES Cell International Pte Ltd	Stem cell products for research, including clinical grade cell lines produced under cGMP	100%	Singapore
LifeMap Sciences, Inc.	Genetic, disease, and stem cell databases	74.52%	USA
LifeMap Sciences, Ltd.	Stem cell database	(1)	Israel
LifeMap Solutions, Inc.	Mobile health software	(1)	USA
OncoCyte Corporation	Cancer diagnostics	75.3%	USA
OrthoCyte Corporation	Orthopedic diseases, including chronic back pain and osteoarthritis	100%	USA
ReCyte Therapeutics, Inc.	Vascular disorders, including cardiovascular-related diseases, ischemic conditions, vascular injuries. Stem cell-derived endothelial and cardiovascular related progenitor cells for research, drug testing, and therapeutics	94.8%	USA

(1) LifeMap Sciences, Ltd. and LifeMap Solutions, Inc. are wholly-owned subsidiaries of LifeMap Sciences, Inc.

Additional Information

Espy®*, HyStem*®, *Hextend*®, *PureStem*®*,* and *PentaLyte*® are registered trademarks of BioTime, Inc., and *Renevia*™, *ESpan*™ and *ESI BIO*™ are trademarks of BioTime, Inc. *ACTCellerate*™ is a trademark licensed to us by Advanced Cell Technology, Inc. *ReCyte*™ is a trademark of ReCyte Therapeutics, Inc. *PanC-Dx*™ is a trademark of OncoCyte Corporation. *OpRegen*® is a registered trademark of Cell Core Neurosciencs, Ltd. *GeneCards*® is a registered trademark of Yeda Research and Development Co. Ltd.

We were incorporated in 1990 in the state of California. Our principal executive offices are located at 1301 Harbor Bay Parkway, Alameda, California 94502. Our telephone number is (510) 521-3390.

Research and Development Expenses

The following table shows the approximate percentages of our total research and development expenses of $17,469,570 and $10,975,825 allocated to our primary research and development projects during the three and six months ended June 30, 2014 and 2013, respectively.

Company	Program	Three Months Ended June 30,		Six Months Ended June 30,	
		2014	2013	2014	2013
Asterias	hESC-based cell therapeutic programs	30.2%	10.6%	30.6%	7.1%
BioTime and ESI	*PureStem*® hEPCs, cGMP hES cell lines, and related research products	8.8%	13.5%	9.3%	13.2%
BioTime	*PureStem*® technology	–%	–%	–%	1.8%
BioTime	Hydrogel therapeutic products and *HyStem*® research	18.8%	20.6%	17.3%	21.1%
BioTime	*Hextend*®	0.2%	0.4%	0.2%	0.4%
BioTime	*HyStem*® 3D cell culture platform for cancer drug discovery	1.0%	–%	0.7%	–%
BioTime Asia	Stem cell products for research	–%	0.1%	–%	0.1%
Cell Cure Neurosciences	*A*ge related macular degeneration (*OpRegen*® and *OpRegen*®*-Plus*), and neurological disease therapeutics	14.5%	18.4%	14.6%	20.8%
LifeMap Sciences	Database development and sales and mobile health software development	9.9%	11.7%	9.6%	11.4%
OncoCyte	Cancer diagnostics	10.5%	12.6%	10.8%	12.8%
OrthoCyte	Orthopedic therapeutics	2.0%	6.3%	2.3%	5.5%
ReCyte Therapeutics	Cardiovascular therapeutics	4.1%	5.8%	4.6%	5.8%

Critical Accounting Policies

Revenue recognition – We comply with ASC 605-10 and record revenue when persuasive evidence of an arrangement exists, delivery has occurred or services have been rendered, the price is fixed or determinable, and collectability is reasonably assured. Grant income and the sale of research products are recognized as revenue when earned. Revenues from the sale of research products are primarily derived from the sale of hydrogels and stem cell products. Royalty revenues consist of product royalty payments. License fee revenues consist of fees under license agreements and are recognized when earned and reasonably estimable and also include subscription and advertising revenue from our online databases based upon respective subscription or advertising periods. We recognize revenue in the quarter in which the royalty reports are received rather than the quarter in which the sales took place. When we are entitled to receive up-front nonrefundable licensing or similar fees pursuant to agreements under which we have no continuing performance obligations, the fees are recognized as revenues when collection is reasonably assured. When we receive up-front nonrefundable licensing or similar fees pursuant to agreements under which we do have continuing performance obligations, the fees are deferred and amortized ratably over the performance period. If the performance period cannot be reasonably estimated, we amortize nonrefundable fees over the life of the contract until such time that the performance period can be more reasonably estimated. Milestone payments, 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.

Patent costs – Costs associated with obtaining patents on products or technology developed are expensed as general and administrative expenses when incurred. This accounting is in compliance with guidance promulgated by the Financial Accounting Standards Board ("FASB") regarding goodwill and other intangible assets.

Intangible assets – Intangible assets with finite useful lives are amortized over estimated useful lives and intangible assets with indefinite lives are not amortized but rather are tested at least annually for impairment. Acquired in-process research and development intangible assets are accounted depending on whether they were acquired as part of an acquisition of a business, or assets that do not constitute a business. When acquired in conjunction with acquisition of a business, these assets are considered to be indefinite-lived until the completion or abandonment of the associated research and development efforts and are capitalized as an asset. If and when development is complete, the associated assets would be deemed finite-lived and would then be amortized based on their respective estimated useful lives at that point in time. However, when acquired in conjunction with an acquisition of assets that do not constitute a business (such as Asterias' acquisition of assets from Geron), in accordance with the accounting rules in ASC 805-50, such intangible assets related to IPR&D are expensed upon acquisition.

Research and development – We comply with FASB requirements governing accounting for research and development costs. Research and development costs are expensed when incurred, and consist principally of salaries, payroll taxes, consulting fees, research and laboratory fees, and license fees paid to acquire patents or licenses to use patents and other technology from third parties.

Stock-based compensation – We have adopted accounting standards governing share-based payments, which require the measurement and recognition of compensation expense for all share-based payment awards made to directors and employees, including employee stock options, based on estimated fair values. We utilize the Black-Scholes Merton option pricing model. Our determination of fair value of share-based payment awards on the date of grant using an option-pricing model is affected by our stock price as well as assumptions regarding a number of highly complex and subjective variables. These variables include, but are not limited to, expected stock price volatility over the term of the awards, and actual and projected employee stock option exercise behaviors. The expected term of options granted is derived from historical data on employee exercises and post-vesting employment termination behavior. The risk-free rate is based on the U.S. Treasury rates in effect during the corresponding period of grant. Although the fair value of employee stock options is determined in accordance with recent FASB guidance, changes in the subjective assumptions can materially affect the estimated value. In management's opinion, the existing valuation models may not provide an accurate measure of the fair value of employee stock options because the option-pricing model value may not be indicative of the fair value that would be established in a willing buyer/willing seller market transaction.

Treasury stock – We account for BioTime common shares issued to subsidiaries for future potential working capital needs as treasury stock on the consolidated balance sheet. We have the intent and ability to register any unregistered shares to support the marketability of the shares.

Impairment of long-lived assets – Our long-lived assets, including intangible assets, are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be fully recoverable. If an impairment indicator is present, we evaluate recoverability by a comparison of the carrying amount of the assets to future undiscounted net cash flows expected to be generated by the assets. If the assets are impaired, the impairment recognized is measured by the amount by which the carrying amount exceeds the estimated fair value of the assets.

Deferred license and consulting fees – Deferred license and consulting fees consist of the value of warrants issued to third parties for services, and deferred license fees paid to acquire rights to use the proprietary technologies of third parties. The value of the warrants is being amortized over the lives of the warrants, and deferred license fees over the estimated useful lives of the licensed technologies or licensed research products. The estimation of the useful life of any technology or product involves a significant degree of inherent uncertainty, since the outcome of research and development or the commercial life of a new product cannot be known with certainty at the time that the right to use the technology or product is acquired. We will review its amortization schedules for impairments that might occur earlier than the original expected useful lives. See also Note 5 to the condensed consolidated interim financial statements.

Principles of consolidation – Our consolidated financial statements include the accounts of our wholly-owned subsidiaries, OrthoCyte, and ESI, and the accounts of our majority owned subsidiaries, Asterias, ReCyte Therapeutics, OncoCyte, BioTime Asia, Cell Cure Neurosciences, and LifeMap Sciences. All material intercompany accounts and transactions have been eliminated in consolidation. The consolidated financial statements are presented in accordance with accounting principles generally accepted in the U.S. and with the accounting and reporting requirements of SEC Regulation S-X.

Results of Operations

For the three and six months ended June 30, 2014, we recorded a net loss of $9,520,190 and $17,608,835, respectively.

Revenues

	Three Months Ended June 30,		$ Increase/	% Increase/
	2014	2013	Decrease	Decrease
License fees	$ 300,079	$ 362,249	$ -62,170	-17.2%
Royalty from product sales	76,109	103,315	-27,206	-26.3%
Grant income	640,034	693,480	-53,446	-7.7%
Sales of research products and services	90,478	57,281	+33,197	+58.0%
Total revenues	1,106,700	1,216,325	-109,625	-9.0%
Cost of sales	(251,265)	(180,811)	+70,454	+39.0%
Gross profit	855,435	1,035,514	-180,079	-17.4%

	Six Months Ended June 30,		$ Increase/	% Increase/
	2014	2013	Decrease	Decrease
License fees	$ 594,582	$ 712,078	$ -117,496	-16.5%
Royalty from product sales	173,996	210,914	-36,918	-17.5%
Grant income	1,215,614	777,293	+438,321	+56.4%
Sales of research products and services	189,068	124,005	+65,063	+52.5%
Total revenues	2,173,260	1,824,290	+348,970	+19.1%
Cost of sales	(383,179)	(363,560)	+19,619	+5.4%
Gross profit	1,790,081	1,460,730	+329,351	+22.5%

Our license fee revenues amounted to $300,079 and $594,582 for the three and six months ended June 30, 2014, respectively. License fee revenues for the same periods in 2013 amounted to $362,249 and $712,078, respectively. License fee revenues for the six months ended June 30, 2014 and 2013 include subscription and advertising revenues of $594,582 and $638,148 from LifeMap Science's online database business primarily related to its *GeneCards*® database.

Under our license agreements with Hospira and CJ Health, our licensees report sales of *Hextend*® and pay us the royalties due on account of such sales within 90 days 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. For example, royalties on sales made during the first quarter 2014 were not recognized until the second quarter of fiscal year 2014.

Our royalty revenues from product sales for the six months ended June 30, 2014 primarily consist of $61,981 of royalties earned by Asterias under license agreements that Asterias acquired as part of the assets received from Geron under the Asset Contribution Agreement. Royalty revenues on sales of *Hextend*® made by Hospira and CJ Health during the period beginning January 1, 2014 and ending March 31, 2014 which we recognized as revenues in the three months ended June 30, 2014 were $55,397 compared with $103,315 for the three months ended June 30, 2013. This 46% decrease in royalties on sales of *Hextend*® is attributable to a decrease in the U.S. and in the Republic of Korea. The blood volume expander marketing continues to contract and hospitals continue to shift their purchases to albumin products. Hospira has reported that they have seen a rapid decline in the price of hetastarch-based plasma expanders in the market which could continue to have a negative impact on revenues from the sale of *Hextend*®. Sales of *Hextend*® were also suspended by Hospira during January and February of 2014 following the implementation of certain new safety labeling changes mandated by the FDA for the entire class of hydroxyethyl starch products, including *Hextend*®. The labeling changes, which may also have contributed to the decline in sales since approval by the FDA in November 2013, include a boxed warning stating that the use of hydroxyethyl starch products, including *Hextend*®, increases the risk of mortality and renal injury requiring renal replacement therapy in critically ill adult patients, including patients with sepsis, and that *Hextend*® should not be used in critically ill adult patients, including patients with sepsis. New warning and precaution information is also required along with new information about contraindications, adverse reactions, and information about certain recent studies. In addition, during June 2014, we entered into an amendment of our license agreement with CJ Health that extended the term of the license and CJ Health's royalty payment obligation beyond the expiration date of our Korean patents but reduced the royalty rate by 50%. We expect royalty revenues from sales of *Hextend*® to continue to decline as a percentage of total revenue.

Based on sales of *Hextend*® that occurred during the second quarter of 2014, we will receive royalties of $51,216 from Hospira and we have received $12,080 from CJ Health during the third quarter of 2014. Total royalties of $63,296 for the quarter decreased 21% from royalties of $80,592 received during the same period last year. These royalties will be reflected in our financial statements for the third quarter of 2014.

Total grant revenue for the three and six months ended June 30, 2014 were $640,034 and $1,215,614, respectively, representing decrease and increases of approximately 7.7% and 56.4% over grant revenues for the respective periods of the prior year. Grant revenue for the three and six months ended June 30, 2014 included $455,488 and $881,179, respectively, recognized through Cell Cure Neurosciences, and $184,546 and $334,435, respectively from various grants awarded to us by the National Institutes of Health ("NIH") that will expire at various time during the current year.

While revenues increased by 19.1% during the six months ended June 30, 2014, cost of sales increased by only 5.4%, reflecting the fact that grant revenues, which do not give rise to costs of sales, increased by $438,321.

	Three Months Ended June 30,		$ Increase/	% Increase/
	2014	2013	Decrease	Decrease
Research and development expenses	$ (9,081,137)	$ (5,530,395)	$ +3,550,742	+64.2%
General and administrative expenses	(4,835,972)	(3,621,570)	+1,214,402	+33.5%
Interest (expense)/income, net	(10,024)	579	-10,603	-1,831.3%
Other income/(expense), net	164,732	(80,541)	+245,273	+304.53%

	Six Months Ended June 30,		$ Increase/	% Increase/
	2014	2013	Decrease	Decrease
Research and development expenses	$ (17,469,570)	$ (10,975,825)	$ +6,493,745	+59.2%
General and administrative expenses	(8,503,259)	(7,005,091)	+1,498,168	+21.4%
Interest (expense)/income, net	(18,398)	1,522	-19,920	-1,308.8%
Other income/(expense), net	242,868	(109,520)	+352,388	+321.75%

Research and development expenses – Research and development expenses for the three and six months ended June 30, 2014 increased to $9,081,137 and $17,469,570, respectively, from $5,530,395 and $10,975,825 for the same periods in 2013. The increase is largely due to the ramp-up of Asterias' operations following its acquisition of stem cell assets from Geron and us through the Asset Contribution Agreement and also the commencement of operations of LifeMap Solutions.

The largest component of the increase in research and development expenses during the three months ended June 30, 2014 was an increase of $1,279,341 in employee compensation, including stock based compensation, employee bonus accruals, and related costs allocated to research and development expenses. The increase in employee compensation reflects, in part, Asterias hiring additional management and scientific personnel, certain Asterias executives and other employees who had been employed on a part-time basis during the same period in 2013 subsequently becoming employed on a full-time basis, and the hiring of three executive level employees at LifeMap Solutions. Other components of the increase in research and development expenses were an increase of $725,425 in amortization of intangible assets resulting from Asterias' acquisition of Geron's stem cell assets, an increase of $226,261 in consulting services, an increase of $390,338 in patents, licenses, and trademark related fees arising primarily from assets that Asterias acquired from Geron, an increase of $116,299 in laboratory expenses and supplies at Asterias, an increase of $127,650 in depreciation expenses allocated to research and development expenses again largely related to Asterias' asset acquisition, an increase of $141,786 in rent and facilities maintenance related expenses allocated to research and development expenses, an increase of $54,745 in legal expenses, and an increase of $331,563 in CellCure Neurosciences' research and development expenses.

The increase in research and development expenses during the six months ended June 30, 2014 is attributable to the same factors that contributed to the increase during the second quarter and reflect an increase of $2,567,872 in employee compensation, including stock based compensation, employee bonus accruals, and related costs allocated to research and development expenses, an increase of $1,450,850 in amortization of intangible assets, an increase of $529,379 in consulting services, an increase of $691,974 in patents, licenses, and trademark related fees, an increase of $296,035 in laboratory expenses and supplies, an increase of $260,587 in depreciation expenses allocated to research and development expenses, an increase of $161,328 in rent and facilities maintenance related expenses allocated to research and development expenses, an increase of $80,469 in travel, lodging, and meals allocated to research and development expenses, and an increase of $267,678 in CellCure Neurosciences' research and development expenses.

The following table shows the amount of our total research and development expenses allocated to our primary research and development projects during the six months ended June 30, 2014 and 2013.

		Six Months Ended June 30,	
Company	**Program**	**2014**	**2013**
Asterias	hESC-based cell therapeutic programs	$ 5,341,884	$ 781,989
BioTime and ESI	*PureStem*® hEPCs, cGMP hES cell lines, and related research products	1,629,966	1,445,600
BioTime	*PureStem*® technology	-	199,447
BioTime	Hydrogel therapeutic products and *HyStem*® research	3,019,683	2,312,730
BioTime	*Hextend*®	31,862	44,163
BioTime	*HyStem*® 3D cell culture platform for cancer drug discovery	117,432	-
BioTime Asia	Stem cell products for research	-	16,055
Cell Cure Neurosciences	*OpRegen*®, *OpRegen*®*-Plus*, and neurological disease therapeutics	2,555,712	2,281,952
LifeMap Sciences	Database development and sales and mobile health software development	1,680,249	1,248,767
OncoCyte	Cancer diagnostics	1,884,284	1,406,873
OrthoCyte	Orthopedic therapeutics	405,852	603,438
ReCyte Therapeutics	Cardiovascular therapeutics	802,646	634,811
Total research and development expenses		$ 17,469,570	$ 10,975,825

General and administrative expenses – General and administrative expenses for the three and six months ended June 30, 2014 increased to $4,835,972 and $8,503,259, respectively, from $3,621,570 and $7,005,091 for the same periods in 2013. The increase in general and administrative expenses of $1,214,402 and $1,498,168 for the three and six months ended June 30, 2014 compared to the same periods in 2013 is in part a result of the ramp-up of Asterias' operations. General and administrative expenses include employee and director compensation allocated to general and administrative expenses, consulting fees other than those paid for science-related consulting, insurance costs allocated to general and administrative expenses, stock exchange-related costs, depreciation expense, shipping expenses, marketing costs, legal and accounting costs, and other miscellaneous expenses which are allocated to general and administrative expense.

The largest component of the increase in general and administrative expenses was $989,342 in employee compensation, including stock-based compensation, employee bonus accruals, and related costs allocated to general and administrative expenses. The increase in employee compensation reflects, in part, the hiring of additional management and administrative personnel at Asterias, certain Asterias executives and other employees who had been employed on a part-time basis during the first quarter of 2013 becoming employed by Asterias on a full-time basis, and the hiring of executives by LifeMap Solutions in connection with the commencement of its operations.

Other components of the increase in total general and administrative costs on a consolidated basis for the three months ended June 30, 2014 were: an increase of $407,576 in accounting, audit and tax related expenses, an increase of $141,320 in general consulting expenses; and an increase of $91,983 in marketing and advertisement related expenses. These increases are in part offset by: a decrease of $108,390 in legal fees, related to transactions under the Asset Contribution Agreement, including preparing registration statements for filing with the SEC and a proxy statement for a special meeting of our shareholders, that we incurred in 2013; a decrease of $127,715 in investor and public relations expenses, transfer agent, stock listing and registration fees; and a decrease of $84,133 in stock-based compensation to consultants.

The increase in total general and administrative costs on a consolidated basis for the six months ended June 30, 2014 is attributable to the same factors that contributed to the increase during the second quarter and reflect: $1,140,835 in employee compensation, including stock-based compensation, employee bonus accruals, and related costs allocated to general and administrative expenses; an increase of $308,379 in general consulting expenses; an increase of $213,230 in marketing and advertisement related expenses; an increase of $242,015 in accounting, audit and tax related expense; an increase of $136,351 in rent and facilities maintenance related expenses allocated to general and administrative expenses; and an increase of $120,058 in travel, lodging and meals allocated to general and administrative expenses. These increases are in part offset by decreases of $540,445 in legal fees, related to transactions under the Asset Contribution Agreement, including preparing registration statements for filing with the SEC and a proxy statement for a special meeting of our shareholders, that we incurred in 2013, and a decrease of $160,655 in stock-based compensation to consultants.

The following table shows the amount of our general and administrative expenses and those related to our subsidiaries during the six months ended June 30, 2014 and 2013.

	Six Months Ended June 30,	
Company	**2014**	**2013**
BioTime	$ 3,147,273	$ 3,632,920
Asterias	$ 2,639,134	$ 1,364,296
BioTime Asia	$ 3,111	$ 83,341
Cell Cure Neurosciences	$ 383,073	$ 360,383
ES Cell International Pte Ltd	$ 118,470	$ 133,902
LifeMap	$ 1,379,517	$ 824,208
OncoCyte	$ 375,814	$ 209,048
OrthoCyte	$ 227,255	$ 198,231
ReCyte Therapeutics	$ 229,612	$ 198,762
Total general and administrative expenses	$ 8,503,259	$ 7,005,091

Interest income/(expense) – During the three and six months ended June 30, 2014, we incurred $10,024 and $18,398, respectively, of net interest expense. During the same periods in 2013, we earned $579 and $1,522 of net interest income entirely from cash balances held in interest bearing accounts during 2013.

Other income/(expense) – Other income during the three and six months ended June 30, 2014 consist primarily of $142,793 and $143,824, respectively, in unrealized foreign currency transaction gain by ESI upon remeasurement of amounts owed to BioTime in US dollar. Other income during the six months ended June 30, 2014 also includes $119,213 earned by Cell Cure Neurosciences on embedded derivatives related to a research contract, based in U.S. dollars, with an Israeli company. This income was offset in part by charitable donations of $17,881 made during the first quarter in 2014. Other expense during the same periods in 2013 consist primarily of $92,464 and $115,153, respectively of foreign currency transaction loss.

Income Taxes – A deferred income tax benefit of approximately $2,862,000 was recorded for the six months ended June 30, 2014, of which approximately $2,442,000 was related to federal and $420,000 was related to state taxes. A deferred income tax benefit of approximately $3,280,000 was recorded for the year ended December 31, 2013, of which approximately $2,800,000 was related to federal and $480,000 was related to state taxes. No tax benefit had been recorded through September 30, 2013 because of the net operating losses incurred and a full valuation allowance had been provided.

In June 2014, Asterias' sale of BioTime shares resulted in a taxable gain of approximately $10.3 million and a tax payable of $4.1 million. This payable, however, is expected to be fully offset by Asterias' available net operating losses thus, resulting in no cash income taxes due from that sale. As of June 30, 2014, Asterias recorded a $4.7 million deferred tax liability for the temporary taxable difference in the basis of the investment still held by Asterias in BioTime stock. Both transactions were treated as a deemed distribution by Asterias and recorded against equity. BioTime net operating losses may not be offset against Asterias gains as the entities file separate tax returns and may not use each other's tax attributes.

Liquidity and Capital Resources

At June 30, 2014, we had $15,721,508 of cash and cash equivalents on hand, of which $12,861,312 was held by Asterias. Subsequent to June 30, 2014, Asterias paid $5,000,000 in cash to BioTime as a reimbursement of Asterias' operating expenses paid or incurred by BioTime for Asterias' account prior to Asterias' receipt of $12,660,908 in proceeds from the sale of 5,049,197 BioTime common shares and 5,000,000 Asterias common stock purchase warrants during June 2014. See "Cash generated by financing activities" below and Note 10 to the condensed consolidated interim financial statements.

Our management is working with Asterias' current management and its Board of Directors to better align Asterias' expenditures with available capital resources, and will continue to explore synergistic opportunities at Asterias and BioTime that may advance product development in a cost effective manner. For example, insight that we have gained from our *PureStem*® technology might help Asterias improve the purity and efficiency of production of the hES derived progenitor cells that it may use in some of its product development programs. Asterias' management is continuing to evaluate the opportunities for Asterias' stem cell assets in order to select the best paths for the advancement of its key product programs, including paths that can be followed with Asterias' current financial assets and funds that Asterias expects to receive from research grants that have been approved, and those paths that would be open if Asterias were to enter into cooperative development arrangements or obtain new equity capital.

As a result of this review of Asterias' key programs, Asterias will allocate its capital to programs that receive third party funding or other support, initially AST-OPC1 for cervical spinal cord injury, and AST-VAC2 as an immunotherapy for the treatment of non-small cell lung cancer, with a reduced level of expenditures on other programs. If third party funding or support is not received, we would expect Asterias to concentrate its resources on those product development programs that provide the best opportunity for near-term progress.

In May 2014, Asterias was awarded a $14.3 million Strategic Partnership III grant by the California Institute for Regenerative Medicine ("CIRM") to help fund the clinical development of AST-OPC1. The grant will provide funding for Asterias to reinitiate clinical development of AST-OPC1 in subjects with spinal cord injury, to expand clinical testing of escalating doses in the target population intended for future pivotal trials, and for product development efforts to refine and scale manufacturing methods to support eventual commercialization. Asterias is preparing to initiate the dose escalation Phase 1/2a clinical trial of AST-OPC1 in patients with cervical injuries in six to nine months subject to clearance from the United States Food and Drug Administration ("FDA"). The CIRM funding will be conditioned on approval of the trial by the FDA, execution of a definitive agreement between Asterias and CIRM, and continued progress to achieve certain pre-defined project milestones. Asterias is in the process of negotiating with CIRM the funding agreement for the award, including the schedule for disbursement of the awarded funds and the pre-defined project milestones for continued funding. The ability to initiate the Phase 1/2a trial of AST-OPC1 on schedule will be dependent on timely completion of these negotiations, and Asterias' ability to achieve adequate funds disbursements from CIRM during the early period of the award.

Asterias has passed the scientific review stage and reached agreement in principle on the funding agreement for a grant from a large United Kingdom based charitable organization to fund Phase I/IIa clinical development of the AST-VAC2 product candidate. Under the proposed grant, Asterias would complete process development and manufacturing scale-up of the AST-VAC2 manufacturing process and would transfer the resulting cGMP-compatible process to the United Kingdom organization. The United Kingdom organization would perform and fund both the Phase I/IIa clinical trial of AST-VAC2 in cancer patients and the cGMP manufacturing costs of AST-VAC2. Asterias anticipates completion of negotiations and execution of the funding agreement during the second half of 2014. This same charitable organization had awarded a similar grant for VAC2 to Geron but that grant was withdrawn after Geron terminated the program in November 2011.

There can be no assurance that Asterias will receive the grant that it is seeking to fund a clinical trial of AST-VAC2.

Because our revenues are not presently sufficient to cover our operating expenses, we will continue to need to obtain additional equity capital or debt in order to finance our operations. The future availability and terms of equity or debt 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 by us or our subsidiaries could result in the dilution of the interests of present shareholders.

Cash generated by operations

During the six months ended June 30, 2014, we received $2,519,837 of cash in our operations. Our sources of that cash primarily consisted of $1,263,103 from the sale of research products and subscription and advertisement revenues, $885,329 in foreign research grants to Cell Cure Neurosciences, $197,409 of research grant payments from the NIH, and $173,996 in royalty revenues on product sales by licensees. During the same six month period in 2013, we received $1,223,490 of cash in our operations. Our sources of that cash primarily consisted of $619,637 from the sale of research products and subscription and advertisement revenues, our final quarterly research grant payment of $392,664 from a CIRM grant approved in 2009 for *PureStem*® research, $107,598 of royalty revenues on sales of *Hextend,*® a $53,779 research grant payment from the NIH, and $48,818 in foreign research grants.

Cash used in operations

During the six months ended June 30, 2014, our total research and development expenditures were $17,469,570 and our general and administrative expenditures were $8,503,259. Net loss for the six months ended June 30, 2014 amounted to $17,608,835. Net cash used in operating activities during this period amounted to $21,135,249. The net loss for the period includes the following non-cash items: amortization of $2,735,996 in intangible assets; $2,212,141 in stock-based compensation paid to employees, consultants and directors; $2,862,284 in deferred income tax benefit; $522,714 in depreciation expenses; $2,034,852 in accounts payable and accrued liabilities; $314,601 in prepaid expenses and other current assets; $186,386 in other long-term liabilities; and $132,876 in grant receivables. The net loss for the period does not include a net loss of $3,495,735 allocable to the noncontrolling interest in our subsidiaries.

Cash flows from investing activities

During the six months ended June 30, 2014, we used $706,895 for investing activities. The primary components of this cash were approximately $404,649 used in the purchase of equipment, and a lease security deposit of $300,000 for Asterias' facilities in Fremont, California.

Cash generated by financing activities

During the six months ended June 30, 2014, we raised gross proceeds of $15,806,316 from the sale of 5,040,560 BioTime common shares by us and our subsidiaries at a weighted average price of $3.14 per share in "at-the-market" transactions through Cantor Fitzgerald & Co. ("Cantor"), as the sales agent. Offers and sales of our common shares for our account through Cantor are made under a *Controlled Equity Offering*SM Sales Agreement and have been registered under the Securities Act of 1933, as amended (the "Securities Act"). Under the sales agreement, Cantor may sell our common shares by any method permitted by law deemed to be an "at-the-market" offering as defined in Rule 415 under the Securities Act, including, but not limited to, sales made directly on NYSE MKT, on any other existing trading market for our common shares or to or through a market maker. Cantor may also sell our shares under the sales agreement by any other method permitted by law, including in privately negotiated transactions. Cantor has agreed in the sales agreement to use its commercially reasonable efforts to sell shares in accordance with our instructions (including any price, time or size limit or other customary parameters or conditions we may impose). The offering pursuant to the sales agreement will terminate upon the sale of all shares subject to the sales agreement or the earlier termination of the sales agreement as permitted by its terms. Cantor has also acted as a sales agent for our subsidiaries Asterias, LifeMap Sciences, OncoCyte, and Cell Cure Neurosciences that have sold BioTime common shares to raise capital for their operations. The offer and sale of those shares has also been registered under the Securities Act. We contributed the BioTime common shares to the subsidiaries in exchange for subsidiary capital stock. The proceeds of the sale of BioTime shares by our subsidiaries belong to those subsidiaries. There is no assurance that we or our subsidiaries will be able to sell additional common shares through Cantor at prices acceptable to us.

On March 4, 2014, BioTime received $3,500,000 from the sale of 70,000 shares of a newly authorized Series A Convertible Preferred Stock ("Series A Preferred Stock"). The Series A Preferred Stock carries a cumulative annual 3% preferred dividend or $1.50 per share, in preference to BioTime common shares. Each share of Series A Preferred Stock is convertible, at the election of the holder, into BioTime common shares at a conversion price of $4.00 per share, a current conversion ratio of 12.5 common shares for each share of Series A Preferred Stock. See Note 7 to the condensed consolidated interim financial statements.

On June 16, 2014, Asterias sold 200,000 shares of its Series B common stock to its President and Chief Executive Officer, Pedro Lichtinger, for $468,000 in cash, and on June 16, 2014 Asterias sold 5,000,000 of its BioTime common shares with warrants to purchase 5,000,000 shares of Asterias' Series B common stock to two private investors for $12,500,000 in cash. The warrants are exercisable until 5:00 p.m. New York time on June 15, 2015 at an exercise price of $2.34 per share. The exercise price of the warrants and the number of shares issuable upon the exercise of the warrants are subject to adjustment in the case of stock splits, stock dividends, or certain other transactions.

During the six months ended June 30, 2014, BioTime received $219,500 from the exercise of options by an employee and three directors at a weighted average strike price of $1.91 per share.

Contractual obligations

As of June 30, 2014, our contractual obligations for the next five years and thereafter were as follows:

	Principal Payments Due by Period				
Contractual Obligations (1)	**Total**	**Less Than 1 Year**	**1-3 Years**	**4-5 Years**	**After 5 Years**
Operating leases (2)	$ 12,297,111	$ 906,227	$ 3,548,764	$ 2,579,280	$ 5,262,840
Capital lease (3)	$ 127,009	$ 26,460	$ 100,549	$ -	$ -

1) This table does not include payments to key employees that could arise if they were involuntary terminated or if their employment terminated following a change in control.

2) Includes the lease of our principal office and laboratory facilities in Alameda, California, and leases of the offices and laboratory facilities of our subsidiaries Asterias, ESI, LifeMap Sciences, and Cell Cure Neurosciences. Also includes two operating leases for lab equipment.

3) Includes one capital lease for lab equipment.

Future capital needs

The operations of our subsidiary Asterias will continue to result in an increase in our operating expenses and losses on a consolidated basis compared to 2013, and will increase our need for additional capital on an ongoing basis. Asterias' research and development efforts will involve substantial expenses that will add to our losses on a consolidated basis for the near future. Also, Asterias is now a public company. As a public company, Asterias will incur costs associated with audits of its financial statements, filing annual, quarterly, and other periodic reports with the SEC, holding annual shareholder meetings, and public relations and investor relations. These costs will be in addition to those incurred by us for similar purposes.

We and our subsidiaries will need to continue to sell BioTime common shares from time to time, and our subsidiaries may also seek to raise capital through the sale of their capital stock. We and our subsidiaries will also seek funding for our research and development programs from other sources such as research grants and other arrangements with third parties.

We have consolidated the sales and marketing of our research products in a new ESI BIO division. As part of this plan, we have shifted our sales and marketing efforts from a website based effort to one that utilizes more sales personnel who may be employees or independent sales representatives. We also plan to expand our product offerings. This effort will require additional expenditures for the development of new research products and the addition of assets and personnel for sales and marketing purposes.

The amount and pace of research and development work that we and our subsidiaries 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 and our subsidiaries 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 our projects.

The market value and the volatility of our stock price, as well as general market conditions, could impact our ability to raise capital on favorable terms, or at all. Any equity financing that we or our subsidiaries obtain may further dilute or otherwise impair the ownership interests of our current shareholders. If we and our subsidiaries fail to generate positive cash flows or fail to obtain additional capital when required, we and our subsidiaries could modify, delay or abandon some or all of our respective research and development programs.

Item 3. Quantitative and Qualitative Disclosures about Market Risk

Foreign Currency Exchange Risk

We are exposed to some foreign exchange currency risks because we have subsidiaries that are located in foreign countries. We do not engage in foreign currency hedging activities. Because we translate foreign currencies into United States dollars for reporting purposes, currency fluctuations have an impact on our financial results. We believe that our exposure to currency exchange fluctuation risk is mitigated by the fact that our foreign subsidiaries pay their financial obligations almost exclusively in their local currency. As of June 30, 2014 and as of December 31, 2013, currency exchange rates did not have a material impact on our intercompany transactions with our foreign subsidiaries. However, a weakening of the dollar against the foreign exchange used in the home countries of our foreign subsidiaries could increase our cost of providing additional financing to our foreign subsidiaries in the future. Conversely, a strengthening of the dollar would decrease our cost of making additional investments in those subsidiaries.

Credit Risk

We place some of our cash in U.S. banks and invest most of our cash in money market funds. Deposits with banks may temporarily exceed the amount of insurance provided on such deposits. We will monitor the cash balances in the accounts and adjust the cash balances as appropriate, but if the amount of a deposit at any time exceeds the federally insured amount at a bank, the uninsured portion of the deposit could be lost, in whole or in part, if the bank were to fail. Our investments in money market funds are not insured or guaranteed by the United States government or any of its agencies.

Our foreign subsidiaries deposit their cash in local banks, but if the amount of a deposit at any time exceeds the amount at a bank under the national banking insurance laws, the uninsured portion of the deposit could be lost, in whole or in part, if the bank were to fail.

Interest Rate Risk

We invest most of our cash in money market funds. The primary objective of our investments will be to preserve principal and liquidity while earning a return on our invested capital, without incurring significant risks. Our future investment income is not guaranteed and may fall short of expectations due to changes in prevailing interest rates, or we may suffer losses in principal if the net asset value of a money market fund falls below $1 per share.

Item 4. 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 ("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 Quarterly Report on Form 10-Q. 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 1. Legal Proceedings.

From time to time, we and our subsidiaries may be involved in routine litigation incidental to the conduct of our business. We and our subsidiaries are presently not parties to any litigation.

Item 1A. Risk Factors

Our business is subject to various risks, including those described below. You should consider the following risk factors, together with all of the other information included in this report and the risks described in our Annual Report on Form 10-K for the year ended December 31, 2013, which could materially adversely affect our proposed operations, our business prospects, and financial condition, and the value of an investment in our business. There may be other factors that are not mentioned here or of which we are not presently aware that could also affect our business operations and prospects.

Risks Related to Our Business Operations

We have incurred operating losses since inception and we do not know if we will attain profitability

Our comprehensive net losses for the six months ended June 30, 2014 and for the fiscal years ended December 31, 2013, 2012, and 2011 were $17,792,436, $43,760,366, $21,362,524, and $17,535,587, respectively, and we had an accumulated deficit of $163,387,382 as of June 30, 2014 and $145,778,547, $101,895,712, and $80,470,009, as of December 31, 2013, 2012, and 2011, respectively. We primarily finance our operations through the sale of equity securities, licensing fees, royalties on product sales by our licensees, research grants, and subscription fees and advertising revenue from database products. Ultimately, our ability to generate sufficient operating revenue to earn a profit depends upon our and our subsidiaries' success in developing and marketing or licensing products and technology.

We will spend a substantial amount of our capital on research and development but we might not succeed in developing products and technologies that are useful in medicine

- We are attempting to develop new medical products and technologies.

- Many of our experimental products and technologies have not been applied in human medicine and have only been used in laboratory studies *in vitro* or in animals. These new products and technologies might not prove to be safe and efficacious in the human medical applications for which they were developed.

- The experimentation we are doing is costly, time consuming, and uncertain as to its results. We incurred research and development expenses amounting to $17,469,570, during the six months ended June 30, 2014, and $26,609,423, $18,116,688, and $13,699,691 during the fiscal years ended December 31, 2013, 2012, and 2011, respectively, excluding $17,458,766 charged as in process research and development expenses during 2013 in accordance with ASC 805-50 on account of Asterias' acquisition of certain assets from Geron. See Note 8 to condensed consolidated interim financial statements.

- If we are successful in developing a new technology or product, refinement of the new technology or product and definition of the practical applications and limitations of the technology or product may take years and require the expenditure of large sums of money. Future clinical trials of new therapeutic products, particularly those products that are regulated as drugs or biological, will be very expensive and will take years to complete. We may not have the financial resources to fund clinical trials on our own and we may have to enter into licensing or collaborative arrangements with larger, well-capitalized pharmaceutical companies in order to bear the cost. Any such arrangements may be dilutive to our ownership or economic interest in the products we develop, and we might have to accept a royalty payment on the sale of the product rather than receiving the gross revenues from product sales.

We may increase our investment in LifeMap Sciences to provide funding for the development of new software products

Our subsidiary LifeMap Sciences has formed a new subsidiary, LifeMap Solutions, to develop the new personal mobile health software products intended to connect users with their complex personal health information and other big data. We have invested $5,000,000 in LifeMap Sciences to provide funding for the project, and unless additional financing can be obtained from third parties, we may need to increase our investment significantly during the next few calendar years to fund the development and commercialization of the planned products.

The field of mobile health products, including both hardware and software products, is new, and there is no certainty that LifeMap Solutions will be successful in developing its planned new products or that it will be successful in commercializing any products that it does develop.

The field of mobile health products is subject to increasing competition, including from large computer and internet technology companies that have much greater financial and marketing resources than we and LifeMap Solutions have.

The FDA has also taken an interest in the field of on-line or mobile health products and there is a risk that the FDA could determine that LifeMap Solutions' products should be regulated as medical devices under existing laws and regulations, or the FDA could promulgate new regulations that might subject LifeMap Solutions' products to FDA clinical trial and approval procedures, as a prerequisite for permission to use and market the new mobile health products in the United States. Foreign regulatory authorities could make similar determinations or could adopt their own rules regulating the use and marketing of LifeMap Solution's products.

Sales of *Hextend*® have been be adversely affected by safety and use labeling changes required by the FDA

Sales of *Hextend*® have been adversely affected by certain safety labeling changes required by the FDA for the entire class of hydroxyethyl starch products, including *Hextend*®. The labeling changes were approved by the FDA in November 2013 and include a boxed warning stating that the use of hydroxyethyl starch products, including *Hextend*®, increases the risk of mortality and renal injury requiring renal replacement therapy in critically ill adult patients, including patients with sepsis, and that *Hextend*® should not be used in critically ill adult patients, including patients with sepsis. New warning and precaution information is also required along with new information about contraindications, adverse reactions, and information about certain recent studies. The new warning and precautions include statements to the effect that the use of *Hextend*® should be avoided in patients with pre-existing renal dysfunction, and the coagulation status of patients undergoing open heart surgery in association with cardiopulmonary bypass should be monitored as excess bleeding has been reported with hydroxyethyl starch solutions in that population and use of *Hextend*® should be discontinued at the first sign of coagulopathy. The liver function of patients receiving hydroxyethyl starch products, including *Hextend*® should also be monitored. The approved revised label may adversely affect *Hextend*® sales since some users of plasma volume expanders might elect to abandon the use of all hydroxyethyl starch products, including *Hextend*®.

The amount and pace of research and development work that we and our subsidiaries can do or sponsor, and our ability to commence and complete clinical trials required to obtain regulatory approval to market our therapeutic and medical device products, depends upon the amount of money we have

- At June 30, 2014, we had $15,721,508 of cash and cash equivalents on hand. There can be no assurance that we or our subsidiaries will be able to raise funds on favorable terms or at all, or that any funds raised will be sufficient to permit us or our subsidiaries to develop and market our products and technology. Unless we and our subsidiaries are able to generate sufficient revenue or raise additional funds when needed, it is likely that we will be unable to continue our planned activities, even if we make progress in our research and development projects.

- We may have to postpone or limit the pace of our research and development work and planned clinical trials of our product candidates unless our cash resources increase through a growth in revenues or additional equity investment or borrowing.

The condition of certain cells, cell lines and other biological materials that Asterias acquired from Geron could impact the time and cost of commencing Asterias' research and product development programs

The cells, cell lines and other biological materials that Asterias acquired are being stored under cryopreservation protocols intended to preserve their functionality. Asterias has successfully completed the verification of the viability of the clinical grade lots of OPC1 cells that it intends to use in clinical trials. However, the functional condition of the other materials cannot be certified until they are tested in an appropriate laboratory setting by qualified scientific personnel using validated equipment. Asterias intends to perform that testing on the cells that it intends to use in its research and development programs as the need arises.

To the extent that the cells Asterias plans to use are not sufficiently functional for its purposes, Asterias would need to incur the time and expense of regenerating cell lines from cell banks, or regenerating cell banks from cell stocks, which could delay and increase the cost of its research and development work using those cells.

Asterias has assumed certain obligations and potential liabilities with regard to clinical trials conducted by Geron, and we do not yet know the scope of any resulting expense

Asterias has assumed Geron's obligations to obtain information and prepare reports about the health of patients who participated in clinical trials of Geron's GRNOPC1 cell replacement therapy for spinal cord damage and its GRNVAC1 immunological therapy for certain cancers. Although the future cost of patient health information gathering and reporting is not presently determinable, we do not expect that the cost will be material to our financial condition.

Asterias has also assumed any liabilities to those patients that might arise as result of any injuries they may have incurred as a result of their participation in the clinical trials. We are not aware of any claims by patients alleging injuries suffered as a result of the Geron clinical trials, but if any claims are made and if liability can be established, the amount of any liability that Asterias may incur, depending upon the nature and extent of any provable injuries incurred, could exceed any insurance coverage that we or Asterias may obtain and the amount of the liability could be material to our financial condition.

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

None.

Item 3. Default Upon Senior Securities

None.

Item 4. Mine Safety Disclosures

Not Applicable.

Item 5. Other Information

None.

Item 6. Exhibits

Exhibit Numbers	Description
3.1	Articles of Incorporation with all amendments.(1)
3.2	By-Laws, As Amended. (2)
4.1	Specimen of Series A Convertible Preferred Stock Certificate (3)
4.2	Certificate of Determination of Series A Convertible Preferred Stock (3)
10.1	Co-Development and Option Agreement, dated May 6, 2014, between LifeMap Solutions, Inc. and the Icahn School of Medicine at Mount Sinai (Portions of this exhibit have been omitted pursuant to a request for confidential treatment) *
10.2	Stock Purchase Agreement, dated May 6, 2014, between LifeMap Sciences, Inc. and BioTime, Inc. (Portions of this exhibit have been omitted pursuant to a request for confidential treatment) *
10.3	Stock Purchase Agreement, dated June 12, 2014, between Pedro Lichtinger and Asterias Biotherapeutics, Inc. *
10.4	Purchase Agreement, dated June 13, 2014, between Broadwood Partners, L.P. and Asterias Biotherapeutics, Inc. *
10.5	Purchase Agreement, dated June 13, 2014, between The George Karfunkel 2007 Grantor Trust #1 and Asterias Biotherapeutics, Inc. *
10.6	Registration Rights Agreement, dated June 16, 2014, between The George Karfunkel 2007 Grantor Trust #1, Broadwood Partners, L.P., and Asterias Biotherapeutics, Inc. *
10.7	Employment Agreement, dated as of June 9, 2014, between Pedro Lichtinger and Asterias Biotherapeutics, Inc. *
10.8	LifeMap Solutions, Inc. 2014 Stock Option Plan *
10.9	Form of LifeMap Solutions, Inc. Incentive Stock Option Agreement *
10.10	Form of LifeMap Solutions, Inc. Stock Option Agreement *
31	Rule 13a-14(a)/15d-14(a) Certification.*
32	Section 1350 Certification.*
101	Interactive Data File
101.INS	XBRL Instance Document *
101.SCH	XBRL Taxonomy Extension Schema *
101.CAL	XBRL Taxonomy Extension Calculation Linkbase *
101.LAB	XBRL Taxonomy Extension Label Linkbase *
101.PRE	XBRL Taxonomy Extension Presentation Linkbase *
101.DEF	XBRL Taxonomy Extension Definition Document *

(1) Incorporated by reference to BioTime's Annual Report on Form 10-K/A-1 for the year ended December 31, 2013 filed with the Securities and Exchange Commission on April 30, 2014

(2) 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.

(3) Incorporated by reference to BioTime's Current Report on Form 8-K filed with the Securities and Exchange Commission on March 5, 2014

* 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: August 11, 2014

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

Date: August 11, 2014

/s/ Robert W. Peabody
Robert W. Peabody
Chief Financial Officer

Exhibit Numbers	Description
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(3) Incorporated by reference to BioTime's Current Report on Form 8-K filed with the Securities and Exchange Commission on March 5, 2014

* Filed herewith

Exhibit 10.1

CO-DEVELOPMENT AND OPTION AGREEMENT

This Co-development and Option Agreement ("**Agreement**") is made by and between the **Icahn School of Medicine at Mount Sinai**, a nonprofit education corporation organized and existing under the laws of the State of New York, having an office at One Gustave L. Levy Place, New York, New York 10029 ("**Mount Sinai**"), and **LifeMap Solutions, Inc.**, a corporation organized and existing under the laws of Delaware ("**LifeMap**"), having a place of business at 1301 Bay Harbor Parkway, Suite 100, Alameda, CA 94502. Mount Sinai and LifeMap are each referred to herein as a "**Party**" and collectively, as the "**Parties**."

This Agreement is effective as of May 1, 2014 ("**Effective Date**").

RECITALS

WHEREAS, LifeMap Sciences, Inc. ("LifeMap Sciences"), the parent company of LifeMap, is the exclusive, perpetual, worldwide commercial licensee of the online databases GeneCards® and MalaCards, and is the owner of LifeMap Discovery™, which are knowledge databases of genes, diseases and cell types, respectively, and has expertise relating to various other data mining technologies; and

WHEREAS, LifeMap is interested in commercializing Internet and mobile Consumer (as hereinafter defined) products for improving lifestyle and healthcare decisions and outcomes based on interpretation of wide scale genetic information, clinical data and other information of product end users ; and

WHEREAS, Mount Sinai's Institute for Genomics and Multiscale Biology is a leader in the field of generating and integrating genomic, transcriptomic, phenotypic and clinical data to provide novel disease models with diagnostic and prognostic insights; and

WHEREAS, the Parties desire to work together to jointly develop the LifeMap Navigator (as hereinafter defined) and wish to integrate Mount Sinai's expertise relating to complex data analysis and LifeMap's expertise relating to development of consumer-friendly mobile user interfaces.

NOW, THEREFORE, in consideration of the mutual benefits to be derived hereunder, and intending to be legally bound, the Parties agree as follows:

1. DEFINITIONS

1.1 ***Affiliate*** means a legal entity that is controlling, controlled by or under common control with a Party. For purposes of this Agreement, the word "control" means (x) the direct or indirect ownership of more than fifty percent (50%) of the outstanding voting securities of a legal entity, (y) the right to receive fifty percent (50%) or more of the profits or earnings of a legal entity, or (z) the right to determine the policy decisions of, or to direct or cause the direction of the management of, a legal entity.

1.2 ***Background Intellectual Property*** means Intellectual Property Rights existing prior to the Effective Date, including, but not limited to, such rights with respect to designs, prototypes, processes, drawings, descriptions, software, data and inventions, whether patentable or not, any process, method, composition of matter, article of manufacture, discovery or finding and know-how that are controlled by, or licensed by, a Party and/or its Affiliates, and available for licensing (or sublicensing, as applicable) and reasonably necessary to implement the Development Activities as mutually agreed by the Parties, together with all patents and other Intellectual Property Rights therein. Mount Sinai Background Intellectual Property shall be limited to those Intellectual Property Rights existing prior to the Effective Date that were developed by, or provided by or on behalf of, one or more of the following individuals: the Principal Investigator, including any successor(s) thereto, and/or those working under his direction on the Development Activities. Should LifeMap reasonably require access to Mount Sinai Background Intellectual Property previously developed by, or provided by or on behalf of, individuals *not* working on the Development Activities, the Parties agree to discuss in good faith granting LifeMap access to such Mount Sinai Background Intellectual Property, but nothing contained herein obligates Mount Sinai to grant LifeMap any rights to said Mount Sinai Background Intellectual Property. Mount Sinai's Background Intellectual Property is referred to herein as "**Mount Sinai Background Intellectual Property**".

1.3 ***Code*** means the software code written by Mount Sinai under the Development Plan as used to execute the LMN Engine, including the object code and the Source Code thereof.

1.4 ***Committed Participant*** means a Mount Sinai employee (i) who is participating in the Development Activities under the direction of the Principal Investigator; and (ii) whose percent effort committed to the Development Activity is equal to or exceeds ten percent (10%) of their position effort as outlined in **Attachment B** and made a part of this Agreement.

1.5 ***Consumer*** means all end users, including individual consumers, medical professionals, and organizations that service same, that purchase and/or license, or have purchased and/or licensed on their behalf, a product for personal and/or family use or to assist or enable the use of the product by others. For the avoidance of doubt, use by medical professionals includes direct or indirect assistance or work for or on behalf of patients.

1.6 ***Developed Intellectual Property*** means all Intellectual Property Rights that are first conceived and reduced to practice in the conduct of the Development Activities hereunder, including Documentation, all such technical information, inventions, developments, discoveries, software, methods, techniques, formulae, data, and processes, whether or not patentable or copyrightable.

1.7 ***Development Activities*** means the collaborative research and co-development program described in **Attachment A** to this Agreement, which is hereby incorporated into and made a part of this Agreement.

1.8 ***Development Plan*** means the development plan to be mutually and reasonably agreed to and signed by the Parties with respect to the Development Activities.

1.9 ***Documentation*** means the user, operations and training manuals with respect to any software or other products or processes used in connection with the Development Activities, and, to the extent maintained by Mount Sinai, object libraries, design documentation, statements of principles of operations, schematics, any developer's or administrator's guides, test data, test protocols, and, if any of the components of the software are encrypted, the relevant decryption tools and keys for the Source Code, and, whether formal or informal, specification documents, emails, product design discussions, bug reports, and usability recommendations.

1.10 ***Effective Date*** means the first date written above.

1.11 ***EMR Data*** means data from Mount Sinai's electronic medical records.

1.12 ***Field of Use*** means Consumer applications (including, for clarity, Internet, Web-based, mobile user and Mobile User Applications, databases and software products), based on interpretation and/or presentation of Wide Scale Health Related Information.

1.13 ***Improvements*** means any enhancement, modification, improvement, bug fix, error correction (including corrections of defects, malfunctions, failures, nonconformities and other deficiencies), update, modification, upgrade or discovery created, identified or discovered by or on behalf of either Party with respect to the Code in the Field of Use. For Mount Sinai, Improvements shall be limited to those made by the Principal Investigator and/or those working under him on the Development Activities and shall be limited to those Improvements made within one (1) year of completion of the applicable Development Plan under which such Code was originally created.

1.14 ***Intellectual Property Rights*** means (a) all rights under all copyright laws of the United States and all other countries for the full terms thereof (of all rights accruing by virtue of copyright treaties and conventions), including, all renewals, extensions, reversions or restorations of copyrights now or hereafter provided by law and all rights to make applications for and obtain copyright registrations therefor and recordations thereof, and including without limitation all copyright rights in all software, documentation, user and application interfaces including without limitation, to the extent copyrightable, the look and feel and the structure, sequence and organization thereof; (b) all rights to and under new and useful inventions, discoveries, designs, technology and art and all other patentable subject matter, including all improvements thereof and all know-how related thereto, and all applications for and the right to make applications for Letters Patent in the United States and all other countries, all Letters Patent that issue therefrom and all reissues, extensions, renewals, divisions and continuations (including continuations-in-part claiming the same priority date) thereof, for the full term thereof; (c) all trademarks and service marks and the good will associated therewith and Internet domain names, throughout the world; (d) all trade secrets, confidential business information, evaluations and reports; (e) all know-how under the laws of any jurisdiction and all know-how not otherwise included in the foregoing; and (f) all other intellectual and industrial property and proprietary rights throughout the world not otherwise included in the foregoing, including without limitation all techniques, methodologies and concepts and trade dress.

1.15 ***Joint Results*** means Results generated with the material inventive input of both Mount Sinai and LifeMap.

1.16 ***LifeMap Navigator*** means any Internet, Web-based, mobile user and/or Consumer product solutions for providing information that may potentially aid in improving lifestyle and healthcare decisions and outcomes based on interpretation of Wide Scale Health Related Information and that are powered by the LMN Engine that is being jointly developed as part of the Development Activities hereunder by the Parties.

1.17 ***LMN Components*** means (i) algorithm(s) that incorporate, or are designed to incorporate, input from Wide Scale Health Related Information, including from end users such as LifeMap Navigator end users and/or Results (in part or in whole); and (ii) database(s) that incorporate, or are designed to incorporate, input data from Wide Scale Health Related Information, including from end users such as LifeMap Navigator end users, and/or Results. For clarification purposes, LMN Components may contain User Data. The Parties acknowledge and agree that if the LMN Components contains User Data, Mount Sinai shall have no rights in or to such User Data and LifeMap is free to use such User Data for any purpose it sees fit.

1.18 ***LMN Engine*** means software code, including all Code and Source Code, which powers the relative risk assessment and health advice functions of the LifeMap Navigator by running and/or executing, and/or utilizing the LMN Components.

The LMN Engine may also incorporate input data from additional sources such as publicly available databases or EMR Data as mutually and reasonably agreed by the Parties. The Parties acknowledge and agree that if the LMN Engine contains EMR Data, LifeMap shall have no exclusive rights in or to such EMR Data and Mount Sinai is free to use such EMR Data for any purpose it sees fit.

1.19 ***Logic*** means Mount Sinai know-how relating to development of software, algorithms, and databases capable of analyzing complex data sets and generating predictive models.

1.20 ***Mobile User Application*** means a software application designed to run on smartphones, tablet computers and/or other mobile devices.

1.21 ***Principal Investigator*** means Dr. Eric Schadt, or his designee as reasonably acceptable to LifeMap, who has agreed to serve as Principal Investigator for the Development Activities and will be responsible for the administration and supervision of the Development Activities.

1.22 ***Results*** means all data and results generated in performance of the Development Activities hereunder, including all reports and records relating thereto and the LMN Engine. For clarity, Logic and LMN Components are expressly excluded from Results.

1.23 ***Source Code*** means the human readable form of code for any software licensed to LifeMap hereunder, and any Improvements thereto, all of which (a) will be narrated with build notes sufficient to enable a reasonably skilled programmer to interpret, load, use, support and maintain the code and to perform or cause to be performed such actions as are licensed hereunder, and (b) can be compiled by a computer or assembler for execution.

1.24 ***Steering Committee*** means the joint committee formed by the Parties in accordance with **Section** 2.1 herein to coordinate the collaborative research and joint development activities under this Agreement.

1.25 ***Use*** means use, make, sell, install, operate, develop, compile, run, reproduce, deploy, distribute, transmit, display, perform, create derivative works of, make available on servers, provide access to, integrate with software, reverse engineer, make interoperable and perform tasks as necessary to utilize any item, creation, object, program, idea, concept, data, information, knowledge or any other tangible or intangible property and otherwise exploit same in any manner whatsoever.

1.26 ***User Data*** means any and all LifeMap Navigator end-user personal data inputted into the LifeMap Navigator.

1.27 ***Wide Scale Health Related Information*** means a combination of genetic information and one (or more components of) clinical data and other information of individuals relating to human disease, health and/or wellness, in which the genetic information component involves [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]

2. DEVELOPMENT ACTIVITIES

2.1 The Steering Committee shall be comprised of [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]. The Steering Committee shall meet at least bi-monthly at mutually agreeable dates and places, including meeting by teleconference or other electronic means if agreed upon by all Steering Committee members. The functions of the Steering Committee shall be to oversee the collaborative research and joint development activities, including monitoring progress under the Development Activities, and engaging in exchanges of information and joint planning activities. The Steering Committee shall also appoint task forces or subcommittees, to the extent it may find it convenient or appropriate, with the objective of keeping each Party aware of relevant issues and decisions relating to the collaborative research and joint development under the Development Activities. The Steering Committee may propose from time to time, during the term of this Agreement, to amend or augment the Development Activities hereunder including the addition of statements of work to update or improve any Developed Intellectual Property hereunder. Each such amendment or additional statement of work shall be developed and approved by the Steering Committee, and, to the extent mutually agreeable to the Parties, shall be executed by the Parties and become a part of this Agreement as an exhibit attached hereto. Notwithstanding the foregoing, nothing contained herein shall obligate either Party to undertake additional or expanded activities. Notwithstanding the foregoing provisions of this **Section 2.1**, none of the activities of the Steering Committee shall give it authority to direct the Development Activities or otherwise to infringe upon the appropriate authority of the Principal Investigator in undertaking the Development Activities.

2.2 Mount Sinai and LifeMap will commence the Development Activities after the Effective Date of this Agreement. The Parties will use reasonable efforts to undertake the Development Activities substantially in accordance with the terms and conditions of this Agreement. Notwithstanding the foregoing, LifeMap acknowledges that Mount Sinai will have the freedom to conduct the Development Activities in a manner consistent with Mount Sinai's educational and research missions.

2.3 If the services of the Principal Investigator become unavailable to Mount Sinai for any reason, Mount Sinai shall notify LifeMap and shall undertake reasonable efforts to designate [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] or another member of its faculty who is acceptable to both Parties to serve as the Principal Investigator of the Development Activities. If a substitute Principal Investigator has not been designated within ninety (90) days after the original Principal Investigator ceases his or her services under this Agreement, LifeMap may request an additional ninety (90) days, which extension must be granted, to identify an acceptable replacement Mount Sinai faculty member to serve as Principal Investigator and which replacement shall not be unreasonably objected to by Mount Sinai. During the extended search period, Mount Sinai may suspend its activities under this Agreement until a suitable replacement Principal Investigator has been identified and has agreed to take on the role of Principal Investigator, and Mount Sinai has agreed in writing to the new Principal Investigator. The Parties agree nothing contained herein shall obligate Mount Sinai to cause any Mount Sinai faculty member to act as Principal Investigator against such faculty member's wishes. If a mutually acceptable replacement cannot be found within the foregoing time periods, only then may either Party terminate this Agreement upon written notice thereof to the other Party, subject to the provisions of **Article 11**. Termination of this Agreement in such event shall not be considered a termination for breach.

In order to foster the collaborative nature of the Development Activities, the Parties acknowledge that LifeMap will request that Mount Sinai host, during the term of this Agreement, LifeMap employees or contractors in Mount Sinai facilities solely for the purpose of conducting the Development Activities ("**LifeMap Visiting Scientists**"). The Parties agree that hosting of any LifeMap Visiting Scientists in Mount Sinai facilities shall only be by the prior written agreement of the Parties and shall be limited to no more than [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] LifeMap Visiting Scientists in cumulative total during the term of this Agreement. The Parties further agree that all such LifeMap Visiting Scientists shall be subject to Mount Sinai's policies regarding facility entrance and usage and that all said LifeMap Visiting Scientists shall be required to sign the Visiting Scientist Agreement, attached hereto as **Attachment C**, prior to being hosted at Mount Sinai. Notwithstanding the foregoing, nothing contained herein obligates Mount Sinai to host, or to continue to host, any LifeMap Visiting Scientists in its facilities. Procedures and details regarding the day-to-day collaborative environment and hosting shall be jointly created by Mount Sinai and LifeMap to the extent such procedures and details do not violate any Mount Sinai policies.

2.4 The Parties acknowledge the evolving regulatory landscape surrounding direct-to-consumer patient genetic testing and that certain permit(s) and/or approval(s) may be necessary for such testing. By way of non-limiting example, New York law, including N.Y. Pub. Health Law § 574, Article 5, Title V, prohibits direct-to-consumer genetic testing in New York State and testing of samples obtained in New York State. As such, nothing contained herein, including the work outlined in the Development Activities, obligates Mount Sinai to sequence direct consumer patient biological samples in its New York State laboratory facilities or otherwise provide genetic testing for such direct-to-consumer patient samples in contravention of any applicable law. Should LifeMap desire Mount Sinai to sequence patient biological samples or otherwise provide genetic testing, the Parties will discuss, in good faith, potential avenues for Mount Sinai's participation in such activities that comply with the letter and spirit of applicable law, should Mount Sinai be agreeable to such participation, which agreement shall be at its sole discretion.

2.5 Except to the extent reasonably agreed to by LifeMap, Mount Sinai shall use good faith efforts to avoid utilizing in the LMN Engine (i) any open source, free, community, or similar software, including any libraries or software licensed under the General Public License or any other license agreement or arrangement obliging a Party to make Source Code or object code available to third parties (collectively, "**Open Source Code**") or (ii) any code that requires the use of any Open Source Code in order to function in its intended fashion. Should Mount Sinai reasonably believe it needs to utilize such Open Source Code in the LMN Engine, it shall discuss in good faith with LifeMap such need and follow the processes specified by the LifeMap Chief Technology Officer, or other LifeMap officer, as appointed by the LifeMap Chief Technology Officer, prior to incorporating any such Open Source Code in the LMN Engine.

3. TERM OF AGREEMENT

3.1 The initial term of this Agreement will begin on the Effective Date of this Agreement and will end three (3) years thereafter, unless terminated sooner pursuant to **Article 11** hereof. This Agreement may be extended or renewed only by mutual written agreement executed by duly authorized representatives of the Parties.

4. REIMBURSEMENT OF COSTS; PAYMENT

4.1 LifeMap will provide funding to Mount Sinai to cover costs incurred by Mount Sinai in the conduct of the Development Activities in an initial amount totaling [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] Dollars as specified in the budget attached as **Attachment B** hereto, which is fully incorporated herein. The budget in **Attachment B** provides for an overhead charge (indirect cost rate) by Mount Sinai of [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] percent ([*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]%) of the direct personnel salaries (excluding, for the avoidance of doubt, payroll taxes and benefits) of the Mount Sinai personnel and materials to be utilized for the Development Activities. The Parties acknowledge that Mount Sinai agrees to waive the first [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] Dollars (US$[*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]) of such overhead charges ("**Waived Funds**"). Upon Mount Sinai's request, LifeMap hereby agrees to provide written documentation to Mount Sinai that such Waived Funds are invested into LifeMap for the further development and commercialization of the LifeMap Navigator. For clarity, if funding has been provided to Mount Sinai in the amount of [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] Dollars (US$[*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]) and such amount has been paid in personnel and materials costs, the overhead charge would be [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] percent ([*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]%) of [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] Dollars (US$[*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]) or [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] Dollars (US$[*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]), which would be the maximum amount of the Waived Funds. In consideration for Mount Sinai waiving its overhead charge (indirect cost rate) and enabling investment of the Waived Funds into LifeMap, should LifeMap exercise its option and the Parties enter into a definitive license agreement in accordance with **Article** 7 herein, LifeMap will pay to Mount Sinai a change of control fee as provided for in the definitive license agreement. The Parties further acknowledge that the Mount Sinai prevailing overhead charge (indirect cost rate) will be applied to any funds provided to Mount Sinai in excess of [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]Dollars (US$[*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]), to the extent used for direct personnel salaries (excluding, for the avoidance of doubt, payroll taxes and benefits) of the Mount Sinai personnel and materials utilized to support the Development Activities. LifeMap acknowledges that this total amount is a good faith estimate only and not a guarantee of the cost to conduct the Development Activities. If at any time Mount Sinai determines that it will require additional funds for the Development Activities, it will notify LifeMap and provide an estimate of the additional amount necessary to continue the Development Activities. LifeMap will not be liable for any costs in excess of the amounts set forth in **Attachment B** unless it has agreed in writing to provide additional funds.

4.2 Mount Sinai shall provide invoices to LifeMap at the beginning of each calendar quarter in accordance with the payment schedule set forth in **Attachment B**. Any amounts paid by LifeMap and not spent in such calendar quarter shall be credited on the invoice for the next calendar quarter. All payments are due within [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] days of receipt of an invoice and are to be made to Mount Sinai by wire transfer to:

Bank Name[*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]
Account [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission**]**
Account Name: [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]
ABA # (routing): [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]
IBAN #: [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]
Bank Contact Person [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]
Telephone: [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]
Fax: [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]
Address: [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]
Fund #: [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]

5. RECORDS AND REPORTS

5.1 Results that are solely developed by a Party shall be owned by the Party that generates such Results; Joint Results shall be jointly owned by the Parties.

5.2 Each Party will maintain records of the Results and will provide each other with reports of the progress and Results in accordance with **Attachment A**. Each Party will maintain the other Party's Results as confidential information in accordance with **Article** 8.

5.3 Each Party hereby grants to the other Party a perpetual, royalty-free, irrevocable, fully paid-up, non-exclusive, non-sublicensable (other than to Affiliates) license to the granting Party's rights in the Results, solely for non-commercial internal research purposes. In addition, Mount Sinai grants to, and shall cause its Affiliates to grant to, LifeMap an exclusive option to such Results as are owned by Mount Sinai (and/or its Affiliates) or jointly owned by Mount Sinai and LifeMap as set forth in **Article** 7.

5.4 The Results, and or as well as full copies of the Code and Documentation and other related materials developed by Mount Sinai and reasonably requested by LifeMap from time to time shall be delivered by Mount Sinai (but Mount Sinai shall not be required to deliver such more frequently than [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] in the case of Code, including Source Code) to LifeMap (and such deliverables shall be held strictly confidential by LifeMap in accordance with **Article** 8); provided that, if there are only Improvements and if reasonable, only the Improvements need be delivered. Mount Sinai will utilize a shared code repository such as Git or Subversion and use reasonable efforts to have said repository reflect the current state of Code development such that Code contained in the repository is maintained complete and can be compiled and executed. Upon the request of LifeMap, at the end of every quarter, and within [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] days of termination of this Agreement, Mount Sinai and LifeMap shall have a comprehensive meeting that shall include the Principal Investigator and to the extent possible all Committed Participants to ensure the complete transfer of the Results, including as specified in this **Section 5.4**.

6. INTELLECTUAL PROPERTY

6.1 Each Party grants the other Party a world-wide, royalty-free, non-exclusive, non-sublicenseable (except to Affiliates) license, during the term of this Agreement, to use such Party's Background Intellectual Property, as listed in **Attachment D**, as may be amended by the Parties from time to time, solely to the extent necessary to undertake the Development Activities.

6.2 For all Developed Intellectual Property, inventorship shall be determined in accordance with the U.S. patent laws and ownership shall follow inventorship as follows: [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]. For clarity, the Principal Investigator or any substitute for him in accordance with **Section 2.3** is and shall be a Mount Sinai employee subject to Mount Sinai policy including with respect to obligations to assign intellectual property to Mount Sinai.

6.3 Each Party will promptly provide the other Party a complete written disclosure of any Developed Intellectual Property, which disclosure shall be subject to the confidentiality obligations of **Article** 8. For clarity, only a summary of any Source Code shall be required to be delivered, but the Code shall be delivered in accordance with the provisions of **Section 5.4**.

6.4 Each Party shall be fully responsible for the filing, prosecution, maintenance and enforcement of patent rights claiming its solely owned Intellectual Property Rights. For any Joint Intellectual Property, the Parties shall discuss and agree on the responsibility and control with respect to the filing, prosecution, maintenance and enforcement of patent rights claiming any Joint Intellectual Property but, notwithstanding the foregoing, LifeMap will reimburse Mount Sinai upon receipt of invoices for all reasonable, documented expenses incurred in connection with the filing and prosecution of the patent applications and maintenance of the patents covering Mount Sinai Intellectual Property and/or Mount Sinai's rights in Joint Intellectual Property that LifeMap has an exclusive option and/or license to. Should LifeMap decline to reimburse Mount Sinai for such documented expenses, the option and/or license granted under **Article** 7 shall exclude such Mount Sinai Intellectual Property and/or Mount Sinai's rights in such Joint Intellectual Property that LifeMap declined to reimburse. Mount Sinai will retain all right, title and interest in and to the Mount Sinai Intellectual Property and any patents, copyrights and other intellectual property protections related thereto. LifeMap will retain all right, title and interest in and to the LifeMap Intellectual Property and all other LifeMap Intellectual Property Rights, including, for the avoidance of doubt, the User Data, and any patents, copyrights and other intellectual property protections therein.

7. OPTION

7.1 In consideration of LifeMap's funding of the Development Activities and payment for intellectual property expenses as provided for in **Article** 6, Mount Sinai grants LifeMap an option (such option to be exclusive with regard to that which is to be exclusively licensed; such option to be non-exclusive with regard to that which is to be non-exclusively licensed) to acquire an exclusive or non-exclusive (solely in accordance with **Attachment E,** including any limitations on any exclusivity described therein) royalty-bearing license to Use and utilize (i) Mount Sinai Intellectual Property; (ii) Mount Sinai's Results; (iii) Mount Sinai's rights in Joint Intellectual Property and Joint Results; (iv) Mount Sinai's rights in the LMN Engine (*excluding* any exclusive rights of Mount Sinai as specified herein, including **Appendix E**, to EMR Data and/or LMN Components contained in the LMN Engine), to the extent not owned by LifeMap; (v) Mount Sinai's rights in the Code; (vi) Logic; and (vii) Mount Sinai Background Intellectual Property, solely to the extent such Mount Sinai Background Intellectual Property is, (a) available for licensing in the Field of Use, and (b) reasonably required to Use and/or utilize Mount Sinai Intellectual Property, including such Intellectual Property Rights expressly licensed, or to be licensed, hereunder, substantially on the terms attached hereto as **Attachment E** and incorporated herein, and with such other terms to be negotiated in good faith by LifeMap and Mount Sinai. The Parties agree that they will use good faith efforts to begin negotiations on a license, as discussed above, within [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] days of the Effective Date, and shall use reasonable efforts to agree on a form of license, based substantially on the terms attached hereto as **Attachment E**, within [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] days of the Effective Date.

7.2 If LifeMap and Mount Sinai fail to execute a license agreement within [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] months after disclosure of the Mount Sinai Intellectual Property and Mount Sinai Results to LifeMap, or such additional time period as the Parties shall reasonably agree in writing, either Party may initiate a mediation process through which the Parties shall endeavor to arrive at a mutually agreeable license agreement in accordance with the provisions set forth in **Attachment E**, with the assistance of a sole mediator to be agreed upon by the Parties, or if the Parties are unable to agree on a mediator, one shall be appointed by the American Arbitration Association, or other similar association mutually agreed upon. The Parties further agree that if such a license agreement cannot be agreed to through such mediation within [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] days following initiation of the mediation process, either Party may initiate binding arbitration to resolve any dispute with regard to the form of license agreement. Such arbitration shall be conducted in New York, New York and will be heard by a single arbitrator in accordance with the Commercial Arbitration Rules of the American Arbitration Association then in effect. The arbitrator shall be agreed upon by the Parties, and if the Parties are unable to agree on an arbitrator, one shall be appointed by the American Arbitration Association. The arbitrator will have the power to resolve any disputed terms of a license agreement on fair and reasonable terms with regard to matters not covered by the provisions set forth in **Attachment E**. The arbitrator's decision with respect to resolving such license terms, i.e. the award, will be conclusive and binding upon both Parties, and judgment upon the award may be entered in any court of competent jurisdiction. The arbitrator shall be instructed to endeavor to complete the arbitration and issue an award within ninety (90) days following the initiation of the arbitration. Each Party shall bear its own costs and expenses and an equal share of the mediator's and/or arbitrator's and administrative fees of mediation and/or arbitration. Except as may be required by law, neither a Party nor a mediator or arbitrator may disclose the existence, content, or results of any mediation or arbitration hereunder without the prior written consent of both Parties.

7.3 If LifeMap fails to execute a license agreement with Mount Sinai in accordance with the provisions of **Sections 7.1** and **7.2**, within [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] days following the completion of the mediation and, if applicable, arbitration processes contemplated by **Section 7.2**, Mount Sinai will be free to dispose of the exclusively optioned Mount Sinai Intellectual Property, its rights in the Code, Logic, and LMN Engine (including any EMR Data and/or LMN Components contained therein), and Mount Sinai Results and its rights in Joint Intellectual Property as Mount Sinai deems appropriate, without any further obligation to LifeMap. Further, in such case, LifeMap will be free to dispose of the LifeMap Intellectual Property and LifeMap Results and its rights in Joint Intellectual Property as LifeMap deems appropriate, without any further obligation to Mount Sinai.

7.4 During the term hereof, neither Mount Sinai nor any Affiliate of Mount Sinai will knowingly enter into any agreement with a commercial third party with respect to activities that are within the Field of Use where such agreement would commit a Committed Participant to participate in such activities; provided, however ,that the Parties acknowledge and agree that a Committed Participant can recuse him/herself from the Development Activities at any time during the term hereof. The Parties further acknowledge and agree that following such recusal, Mount Sinai is free to enter into any agreement with a commercial third party with respect to activities that are within the Field of Use where such agreement commits the recused Committed Participant to participate in such activities; provided that the recused Committed Participant will not utilize the Results in part or in whole for activities in the Field of Use with any commercial third party other than as may permitted under the definitive license agreement in accordance with **Attachment E**.

7.5 During the option and negotiation term hereof, neither Mount Sinai nor any Affiliate of Mount Sinai will seek to negotiate, enter into the negotiation of, or enter into, any agreement with a third party with respect to the subject matter of the proposed license terms and/or Mount Sinai Intellectual Property or Joint Intellectual Property that are subject to the exclusive license grant in accordance with **Attachment E** in the Field of Use. For clarity, Mount Sinai is free at any time to seek to negotiate, enter into the negotiation of, or enter into, any agreement with a third party in respect to Mount Sinai Intellectual Property or Mount Sinai's rights in Joint Intellectual Property that are subject to the non-exclusive license grant in accordance with **Attachment E**, including, Logic, LMN Components, and EMR Data. For further clarity, the Parties acknowledge and agree that Mount Sinai is free to use Logic, EMR Data, and/or LMN Components to build, by itself or with third parties, software systems capable of providing health analysis and relative risk assessment functions in the Field of Use to the extent it does not use any components that are, or are intended to be in accordance with the terms hereof (including for the avoidance of doubt **Appendix E**), exclusively licensed to, or owned by, LifeMap.

7.6 Any exclusive license granted to LifeMap pursuant to **Article** 7 hereof, will be subject to: (a) [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]; (b) the retained rights of Mount Sinai to use such rights for academic research, teaching, and patient care purposes; and (c) as applicable, to the rights of the United States government reserved under Public Laws 96-517, 97-256 and 98-620, codified at 35 U.S.C. 200-212, and any regulations issued thereunder.

7.7 The Parties agree to discuss in good faith potential joint venture(s) with respect to any proposed venture(s) outside of the Field of Use utilizing Joint Intellectual Property and/or Mount Sinai Intellectual Property developed hereunder. Notwithstanding the foregoing, neither Party is obligated to enter any further joint venture(s).

8. CONFIDENTIAL INFORMATION

8.1 "***Confidential Information***" means any business or technical information of either Party, including any information relating to either Party's product plans, designs, clients, users, costs, finances, marketing plans, business opportunities, personnel, research, development or know-how, that is disclosed by or on behalf of one Party to the other during the term of this Agreement in connection with the Development Activities. Confidential Information disclosed in tangible form shall be marked as "confidential" upon disclosure or, in the case of oral or other intangible disclosures, shall be summarized in a writing that is marked "confidential" and transmitted to the receiving Party within [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] days of the intangible disclosure, provided, however, that failure to so mark or summarize shall not alter the confidential status of such information if a reasonable person would recognize, by the content and/or context of such disclosure, that the disclosure was intended as confidential. The Code, the LMN Engine, and Documentation shall be considered Confidential Information hereunder and held in strict confidence by the Parties; provided, however, LifeMap may disclose such information, subject to reasonable confidentiality provisions, or as otherwise reasonably appropriate, with respect to the development and commercialization of its products and services, including as covered by Mount Sinai's rights as licensed in accordance with **Attachment E**. For clarity, Mount Sinai shall be free to publish the LMN Components to the extent it complies with the provisions of **Article 10** and does not publish the Code. For the purposes of such publication, the LMN Components shall not be considered LifeMap Confidential Information.

8.2 The Parties may wish, from time to time, in connection with work for the Development Activities contemplated under this Agreement, to disclose its Confidential Information to each other. Each Party shall use such other Party's Confidential Information solely for the purpose of this Agreement and also use at least reasonable efforts to prevent the disclosure of any of the other Party's Confidential Information to third parties during the term and after the termination or expiration of this Agreement for a period of five (5) years (or longer if provided for in the definitive license agreement), provided that the recipient Party's obligations hereunder shall not apply to information that: (a) is already in the recipient Party's possession at the time of disclosure thereof as evidenced by written records; (b) is or later becomes part of the public domain through no fault of the recipient Party; (c) is received from a third party having no obligations of confidentiality to the disclosing Party; or (d) is generated by the receiving Party independently of and without use of the Confidential Information of the disclosing Party as demonstrated by the receiving Party's written or electronic records created contemporaneously with such independent development. In addition, the receiving Party shall also be permitted to disclose Confidential Information of the other Party to the extent required by law, court order, or other governmental authority with jurisdiction, provided that the receiving Party promptly notifies the disclosing Party, to the extent legally permissible, with written notice of such requirement and cooperates, at the disclosing Party's written request and expense, with the disclosing Party's legal efforts to prevent or limit the scope of such required disclosure.

9. HANDLING OF USER DATA BY MOUNT SINAI

9.1 The Parties hereto hereby agree that all activities carried out hereunder, including, but not limited to all exchanges of materials and information made hereunder, shall comply with the Health Insurance Portability and Accountability Act of 1996 and all effective amendments thereto and regulations promulgated thereunder ("**HIPAA**"), including with respect to PHI ("**Protected Health Information**") as defined by HIPAA, as well as with all other applicable federal and state laws, regulations, and Mount Sinai policies. Any PHI provided by either Party to the other shall be provided only with the prior written approval of Mount Sinai's IRB (institutional review board). Any PHI received by either Party in undertaking this Agreement shall be used and in all ways handled in accordance with HIPAA and all applicable laws and regulations, and in accordance with Mount Sinai internal requirements for handling PHI. Both Parties will use appropriate safeguards to prevent unauthorized disclosures of PHI. Each Party will promptly report to the other Party any unauthorized disclosure of PHI in connection with this Agreement of which it becomes aware with adequate detail to allow the other Party to comply with applicable laws. This Section will indefinitely survive the termination or expiration of this Agreement for any reason.

10. PUBLICATION, USE OF NAME

10.1 Mount Sinai and LifeMap recognize the traditional freedom of all scientists to publish and present promptly the results of the Development Activities. Mount Sinai and LifeMap also recognize that exclusive patent rights can be jeopardized by public disclosure prior to the filing of suitable patent applications. Therefore, Mount Sinai agrees that each proposed publication, before submission to a publisher, will be submitted to LifeMap; LifeMap will have [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] days in which to review such proposed publication. If within said [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] day period, LifeMap notifies the Principal Investigator in writing that the proposed publication includes LifeMap's Confidential Information, specifically pointing out where such Confidential Information appears in the proposed publication, then the proposed publication shall not be submitted for publication or otherwise be publicly disclosed until Principal Investigator has removed such Confidential Information. If within said same [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] day period, LifeMap requests in writing that Mount Sinai and Principal Investigator delay publication to allow for patent filing, then Mount Sinai and Principal Investigator will delay publication for up to [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] days from the date of the initial submission of such proposed publication to LifeMap to permit patent application filing. When requested by Mount Sinai in advance, LifeMap, at its discretion, may allow for simultaneous submission of the proposed publication to the publisher and LifeMap. Scientists at both Mount Sinai and LifeMap will be expected to treat matters of authorship in a proper collaborative spirit, giving credit where it is due and proceeding in a manner that fosters cooperation and communication, but will not do anything in this regard that will jeopardize the issuance of a valid patent. With respect to Joint Results, the Parties agree to publish jointly, provided, however, that if the Parties have not submitted a joint manuscript with respect to such Joint Results within [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] months after completion of the Development Activities, then Mount Sinai may submit such manuscript for publication without including LifeMap authors, provided that Mount Sinai follows the review process set forth above. In such event, for publication purposes, Joint Results, to the extent necessary for such publication as determined in the author's reasonable discretion, shall not constitute LifeMap Confidential Information.

10.2 Mount Sinai will not use LifeMap's name without LifeMap's prior written consent except that Mount Sinai may acknowledge LifeMap's funding of the Development Activities in scientific publications and in listings of sponsored research projects. Except as otherwise provided in this Agreement or a license agreement, LifeMap will not use Mount Sinai's name, or the name of any trustee, officer, faculty member, student or employee thereof, for any purpose other than its performance hereunder, including but not limited to, any use in advertising or other promotional or sales literature or other publicity, or in any document used to attempt to obtain funds or financing through any public offering of any security, without the prior written approval of the Party or individual whose name is to be used, which consent shall not be unreasonably withheld or delayed.

10.3 Neither Party may publicly disclose the existence of this Agreement nor the transaction among the Parties contemplated hereunder until a public statement is released by the Parties in accordance with **Section 10.4** publicizing the relationship between the Parties.

10.4 The Parties agree that the press release attached as **Attachment F** (the "**Initial Press Release**") will be released by LifeMap and its ultimate parent company, BioTime, Inc. ("**BioTime**"), promptly after full execution of this Agreement but in any event no later than [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] days thereafter. Mount Sinai may concurrently issue a press release consistent with the content of the Initial Press Release or may jointly issue the Initial Press Release with LifeMap and BioTime. The Parties acknowledge and agree that, to the extent required by law or regulation, BioTime may also file with the Securities and Exchange Commission one or more reports under the Securities Exchange Act of 1934, as amended, and registration statements under the Securities Act of 1933, as amended, disclosing this Agreement and the relationship of the Parties, which may include the filing of this Agreement as an exhibit thereto, subject to **Section 10.5**. Subject to **Section 10.5**, the Parties agree to consult with each other before issuing any other press release or making any public statement with respect to this Agreement, and shall not issue any such press release or statement prior to obtaining the written consent of the other Party, such consent not to be unreasonably withheld or delayed.

10.5 Notwithstanding anything to the contrary contained herein, LifeMap, LifeMap Sciences or any parent company of LifeMap, including BioTime, shall be permitted to disclose the terms of this Agreement to the extent required under the securities or other disclosure laws and regulations of any country or state or the rules and regulations of any securities exchange or electronic securities trading system. If time permits, Mount Sinai will be given a reasonable opportunity to promptly review and comment on any planned public disclosure, other than disclosure that repeats or restates a prior public disclosure in its entirety that has been permitted by this Agreement but only under circumstances where intervening events have not caused such disclosure to become misleading or inaccurate. If LifeMap, LifeMap Sciences, BioTime or any other parent company of LifeMap files a copy of this Agreement with the Securities and Exchange Commission or any similar state or foreign regulatory agency as an exhibit to any registration statement, application, or report, it shall submit to such agency an application for confidential treatment seeking permission to redact from such filing competitively sensitive principal financial terms of this Agreement and the names of scientists included in this Agreement; provided, however, that LifeMap, LifeMap Sciences, BioTime or any other parent company of LifeMap may disclose financial terms of this Agreement in any such registration statement, application, or report to the extent it determines in good faith that doing so is necessary to make any statements contained therein not misleading.

11. TERMINATION

11.1 In addition to the termination right set forth in **Section 2.3** hereof, either Party may terminate this Agreement effective upon written notice to the other Party, if the other Party breaches any of the material terms or conditions of this Agreement and fails to cure such breach within ninety (90) days after receiving written notice thereof. In the event of an incurable breach, the non-breaching Party may terminate this Agreement effective upon fifteen (15) days' written notice to the breaching Party.

11.2 Either Party may suspend its activities under this Agreement immediately upon receipt of a notice from a third party that its activities hereunder infringe such third party's intellectual property rights; if such Party determines, in good faith, in its reasonable discretion after investigation of the claim of infringement, that there exists a likely infringement and determines that it cannot cure such breach within ninety (90) days or perform its obligations hereunder without engaging in such likely infringing activities, then such Party may terminate the Agreement immediately upon notice to the other Party.

11.3 Mount Sinai may terminate this Agreement upon thirty (30) days' written notice to LifeMap should any federal law require regulatory controls, compliance, or other protections for direct-to-consumer genetic testing that Mount Sinai is unable to reasonably comply with; provided that, if reasonable, Mount Sinai shall first cease the noncompliant services and/or activities; provided, further, that if LifeMap in its sole discretion, determines that ceasing the non-compliant activity would materially impact this Agreement, it may terminate this Agreement upon ten (10) days' notice to Mount Sinai. If any state requires regulatory controls, compliance, or other protections for direct-to-consumer genetic testing that Mount Sinai is unable to reasonably comply with, Mount Sinai may terminate services and/or activities with respect to such state.

11.4 Either Party may terminate this Agreement at any time after the second anniversary hereof, upon ninety (90) days' prior written notice to the non-terminating Party.

11.5 LifeMap may terminate this Agreement, at any time after the first anniversary hereof, upon ninety (90) days' prior written notice to Mount Sinai if it determines that the LifeMap Navigator is not a commercially viable product.

11.6 In the event of termination of this Agreement prior to its stated term whether for breach or for any other reason whatsoever (including under Sections 11.4 and 11.5), Mount Sinai will be entitled to retain from the payments made by LifeMap prior to termination Mount Sinai's reasonable costs of concluding the work in progress. Allowable costs include, without limitation, all costs or non-cancellable commitments incurred prior to the receipt, or issuance, by Mount Sinai of the notice of termination, and the full cost of each student, staff member, and faculty member supported hereunder through the end of such commitments. In the event of termination, Mount Sinai will submit a final report of all costs incurred and all funds received under this Agreement within sixty (60) days after the effective termination date. The report will be accompanied by a check in the amount of any excess of funds advanced over costs and allowable commitments incurred. Except in the case of an uncured material breach by Mount Sinai, in case of a deficit of funds, LifeMap will pay Mount Sinai the amount needed to cover costs and allowable commitments incurred by Mount Sinai under this Agreement for any further costs or non-cancellable commitments.

11.7 Termination of this Agreement will not affect the rights and obligations of the Parties accrued prior to termination hereof. The provisions of **ARTICLE** 4, entitled REIMBURSEMENT OF COSTS; PAYMENT; of **ARTICLE** 5, entitled RECORDS AND REPORTS; of **ARTICLE** 6, entitled INTELLECTUAL PROPERTY; of **ARTICLE** 7, entitled OPTION; of **ARTICLE** 8**,** entitled CONFIDENTIAL INFORMATION; of **ARTICLE** 9**,** entitled HANDLING OF USER DATA BY MOUNT SINAI; of **ARTICLE 10**, entitled PUBLICATION; USE OF NAME; of **subsections** 11.6 and 11.7 of **ARTICLE 11**, entitled TERMINATION; of **ARTICLE 12**, entitled DISCLAIMER OF WARRANTIES; INDEMNIFICATION; and subsections 13.3 – 13.12 of **ARTICLE 13**, entitled ADDITIONAL PROVISIONS, as well as the DEFINITIONS to the extent required to interpret such provisions, will survive such termination.

12. DISCLAIMER OF WARRANTIES; INDEMNIFICATION

12.1 EXCEPT AS EXPRESSLY SET FORTH HEREIN, EACH PARTY MAKES NO WARRANTIES, EXPRESS OR IMPLIED, AS TO ANY MATTER WHATSOEVER, INCLUDING, WITHOUT LIMITATION, WARRANTIES WITH RESPECT TO THE CONDUCT, COMPLETION, SUCCESS OR PARTICULAR RESULTS, OR THE SCIENTIFIC OR COMMERCIAL VALUE OF THE DEVELOPMENT ACTIVITIES, OR THE CONDITION, OWNERSHIP, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR THE OUTCOME OF DEVELOPMENT ACTIVITIES. WITHOUT LIMITING THE FOREGOING, EACH PARTY DOES NOT GUARANTEE THAT ANY PATENT OR OTHER INTELLECTUAL PROPERTY RIGHTS SHALL RESULT FROM THE DEVELOPMENT ACTIVITIES, THAT THE SCOPE OF ANY PATENT OR OTHER INTELLECTUAL PROPERTY RIGHTS THAT MAY RESULT THEREFROM WILL COVER THE OTHER PARTY'S INTERESTS, OR THAT ANY SUCH PATENT OR OTHER INTELLECTUAL PROPERTY RIGHTS SHALL BE FREE OF DOMINANCE BY OTHER PATENTS, INCLUDING PATENTS BASED UPON INVENTIONS MADE BY OTHER INVENTORS AT SUCH PARTY INDEPENDENTLY OF THE DEVELOPMENT ACTIVITIES. EXCEPT IN THE CASE OF A BREACH OF THE FOLLOWING SENTENCE, EACH PARTY SHALL NOT BE LIABLE FOR ANY DIRECT, INDIRECT, CONSEQUENTIAL, PUNITIVE OR OTHER DAMAGES SUFFERED BY THE OTHER PARTY OR ANY OTHER PERSON RESULTING FROM THE DEVELOPMENT ACTIVITIES OR THE USE OF THE OTHER PARTY'S INTELLECTUAL PROPERTY PRODUCT. NOTWITHSTANDING THE FOREGOING, (i) EACH PARTY HERETO REPRESENTS THAT IT HAS NO ACTUAL KNOWLEDGE THAT ANY OF THE INTELLECTUAL PROPERTY RIGHTS TO BE UTILIZED HEREUNDER INFRINGE THE ACTIVITIES OF ANY THIRD PARTIES AND AGREES THAT IN UNDERTAKING THE OBLIGATIONS CONTAINED HEREIN IT SHALL NOT KNOWINGLY INFRINGE ANY SUCH THIRD PARTY INTELLECTUAL PROPERTY RIGHTS; AND (ii) MOUNT SINAI AGREES THAT IN ITS PERFORMANCE HEREUNDER IT SHALL UNDERTAKE REASONABLE EFFORTS TO NOT MAKE ANY CONTRIBUTIONS TO THE DEVELOPMENT ACTIVITIES THAT REQUIRE ANY MOUNT SINAI BACKGROUIND INTELLECTUAL PROPERTY OR OTHER MOUNT SINAI INTELLECTUAL PROPERTY RIGHTS THAT ARE NOT LICENSED HEREUNDER.

12.2 LifeMap shall defend, indemnify and hold harmless Mount Sinai, the Principal Investigator and any of Mount Sinai's faculty, students, employees, trustees, officers, affiliates and agents (hereinafter referred to collectively, as the "**Indemnified Persons**") from and against any and all liability, claims, lawsuits, losses, damages, costs or expenses (including reasonable attorneys' fees), which the Indemnified Persons may hereafter incur, or be required to pay as a result of (i) Mount Sinai's activities relating to genetic sequencing and/or diagnostic methods carried out as part of and in accordance with the Development Activities, except as a result of, or to the extent caused by, the negligence or willful misconduct of Mount Sinai; (ii) LifeMap's use of the Results or any Mount Sinai Intellectual Property or Mount Sinai Background Intellectual Property, except as a result of, or to the extent caused by, the negligence or willful misconduct of Mount Sinai; or (iii) as a result of any breach of this Agreement by LifeMap or any act or omission of LifeMap, its employees, affiliates, contractors, licensees or agents. Mount Sinai will notify LifeMap promptly upon learning of the institution or threatened institution of any such liability, claims, lawsuits, losses, damages, costs and expenses and Mount Sinai will cooperate with LifeMap in every proper way in the defense or settlement thereof at LifeMap's request and expense. LifeMap shall control the defense and any related settlement negotiations, but shall not enter into any settlement agreement involving admission of any negligence or wrongdoing by Mount Sinai or any Mount Sinai Indemnified Person without Mount Sinai's prior written consent.

12.3 Mount Sinai shall indemnify and hold harmless LifeMap and any of its employees, officer, directors and agents (hereinafter referred to collectively, as the "**Indemnified Persons**) from and against any and all liability, claims, lawsuits, losses, damages, costs or expenses (including reasonable attorneys' fees), which the Indemnified Persons may hereafter incur, or be required to pay as a result of, or to the extent caused by, the gross negligence or willful misconduct of Mount Sinai. Lifemap will notify Mount Sinai promptly upon learning of the institution or threatened institution of any such liability, claims, lawsuits, losses, damages, costs and expenses and Lifemap will cooperate with Mount Sinai in every proper way in the defense or settlement thereof at Mount Sinai's request and expense. Mount Sinai shall control the defense and any related settlement negotiations, but shall not enter into any settlement agreement involving admission of any negligence or wrongdoing by Lifemap or any Lifemap Indemnified Person without Lifemap's prior written consent.

12.4 LifeMap will procure and maintain policies of insurance, [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] and shall name Mount Sinai as additional insured on a primary and non-contributory basis.

13. ADDITIONAL PROVISIONS

13.1 LifeMap represents that it is duly organized, validly existing and in good standing under the laws of Delaware. LifeMap has been granted all requisite power and authority to carry on its business and to own and operate its properties and assets. The execution, delivery, and performance of this Agreement have been duly authorized by the Board of Directors of LifeMap. There is no pending or, to LifeMap's knowledge, threatened litigation involving LifeMap that would affect this Agreement or LifeMap's ability to perform its obligations hereunder. There is no indenture or contract to which LifeMap is party or otherwise bound, prohibiting execution, delivery, or performance by LifeMap of this Agreement or any provision hereof.

13.2 Mount Sinai represents that it is a corporation duly organized, validly existing, and in good standing under the laws of the State of New York. Mount Sinai has been granted all requisite power and authority to carry on its business and to own and operate its properties and assets. There is no pending or, to Mount Sinai's knowledge, threatened litigation involving Mount Sinai that would affect this Agreement or Mount Sinai's ability to perform its obligations hereunder. There is no indenture or contract to which Mount Sinai is party or otherwise bound, prohibiting execution, delivery, or performance by Mount Sinai of this Agreement or any provision hereof.

13.3 No rights hereunder may be assigned by a Party, directly or by merger or other operation of law, without the express written consent of the other Party. LifeMap may assign this Agreement, either directly or by merger or operation of law, without the prior written consent of Mount Sinai, as long as: (a) at least [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] days before the proposed transaction, LifeMap gives Mount Sinai written notice and such background information as may be reasonably necessary to enable Mount Sinai to give an informed consent, provided that, in the case of an assignment to LifeMap Sciences, [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] days' prior written notice may be given; (b) the assignee agrees in writing to be legally bound by this Agreement; and (c) if the assignee is a company other than LifeMap Sciences, the assignee agrees to deliver to Mount Sinai an updated business development plan within [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] days after the closing of the proposed transaction. Any permitted assignment will not relieve LifeMap of responsibility for performance of any obligation of LifeMap that has accrued at the time of the assignment. Any prohibited assignment will be null and void. Notwithstanding the foregoing, LifeMap shall be permitted to assign the definitive license agreement to LifeMap Sciences to the extent LifeMap and LifeMap Sciences will have fulfilled the obligations outlined under (a) and (b) above.

13.4 A waiver by either Party of a breach or violation of any provision of this Agreement will not constitute or be construed as a waiver of any subsequent breach or violation of that provision or as a waiver of any breach or violation of any other provision of this Agreement.

13.5 Nothing herein will be deemed to establish a relationship of principal and agent between the Parties, nor any of their agents or employees, nor will this Agreement be construed as creating any form of legal association or arrangement which would impose liability upon one Party for the act or failure to act of the other Party. Nothing in this Agreement, express or implied, is intended to confer on any person other than the Parties hereto or their permitted assigns, any benefits, rights or remedies.

13.6 Notices under this Agreement will be in writing and sent by public overnight courier and addressed as follows, and shall be deemed given when delivered (or when delivery thereof is refused):

If to Mount Sinai:

Icahn School of Medicine at Mount Sinai
Mount Sinai Innovation Partners
Attention: Director
770 Lexington Avenue, 14th Floor
New York, NY 10065

with a copy for legal notices only to:

Icahn School of Medicine at Mount Sinai
Attention: Office of General Counsel
One Gustave L. Levy Place, Box 1099
New York, NY 10029

If to LifeMap:

Kenneth Elsner
1020 Plain Street, Suite 290
Marshfield, MA 02050

13.7 This Agreement will be construed and governed in accordance with the laws of the State of New York, without giving effect to conflict of law provisions. The Parties hereby submit to the exclusive jurisdiction of and venue in any state or federal courts located within the Southern District of New York with respect to any and all disputes concerning the subject of this Agreement.

13.8 Neither Party will be liable for any failure to perform as required by this Agreement to the extent such failure to perform is due to circumstances reasonably beyond such Party's control, including, without limitation, labor disturbances or labor disputes of any kind, accidents, failure of any governmental approval required for full performance, civil disorders or commotions, acts of aggression, acts of God, energy or other conservation measures imposed by law or regulation, explosions, failure of utilities, mechanical breakdowns, material shortages, disease, or other such occurrences.

13.9 Each Party will comply with all laws, regulations and other legal requirements applicable to it in connection with this Agreement, including but not limited to any legal requirements applicable to its use of the Results or any of the other Party's Intellectual Property Rights or Background Intellectual Property and laws controlling the export of technical data, computer software, laboratory prototypes, and all other export controlled commodities. Each Party represents that it does not know of any legal requirements applicable to the other Party's use of the Results or its Intellectual Property Rights or Background Intellectual Property that would materially impact the other Party's use thereof.

13.10 The Parties will not knowingly disclose, and will use reasonable efforts to prevent disclosure, to the other Party of any information subject to ITAR controls, or in the Commerce Control List (EAR Part 774 and Supplements), or 10 CFR Part 810 Restricted Data or Sensitive Nuclear Technology. If for purposes of the Development Activities, a Party intends to disclose export-controlled information to the other Party, the disclosing Party will not disclose such information to the other Party unless and until a plan for transfer, use, dissemination and control of the information has been approved by the other Party.

13.11 Except where specifically cited, all references to Articles are to Articles herein, and all references to Sections are to Sections herein. The headings used in this Agreement have been inserted for convenience of reference only and do not constitute a part of this Agreement or define, expand or limit the provisions hereof. The words "hereof," "herein" and "hereunder" and words of similar import when used in this Agreement shall refer to this Agreement as a whole, including the Attachments, and any attachments, exhibits and schedules, and not to any particular provision of this Agreement. Wherever any words are used herein in the masculine, feminine or neuter gender, they shall be construed as though they were used in another gender in all cases where they would so apply, and whenever any words are used herein in the singular or plural form, they shall be construed as though they were also used in the other form in all cases where they would so apply. The word "including" (and with correlative meaning "include") means "including but not limited to."

13.12 This Agreement and the Attachments, and any attachments, exhibits or schedules hereto or thereto, embody the entire understanding between the Parties relating to the subject matter hereof and supersedes all prior understandings and agreements, whether written or oral. This Agreement may not be amended, modified, superseded or canceled and none of the terms, provisions, covenants, representations, warranties, covenants or conditions may be waived, except by a written instrument executed by the Parties, or in the case of waiver, by the Party waiving compliance. The Parties agree that this Agreement is not and shall not be amended or otherwise modified by any provision of or use of any website or software, or by any electronic or online agreement regardless of its terms. It may be amended only in writing, setting out the specific modification(s), signed by the handwritten signature of duly authorized representatives of both Parties, and executed and delivered in accordance with the provisions of this Agreement. An original handwritten signature meeting the requirements in the preceding sentence and transmitted by facsimile (including scanned email attachments) shall be considered a handwritten signature for purposes of this Agreement.

13.13 Execution signatures of this Agreement may be exchanged in counterparts and as scanned email attachments, and all signatures so exchanged shall be considered as original and as one and a part of the same instrument.

[signature page follows]

IN WITNESS WHEREOF, the duly authorized representatives of the Parties hereby execute this Agreement as of the date first written above.

Icahn School of Medicine at Mount Sinai

By: s/Scott L. Friedman

Name: Scott L. Friedman

Title: Dean of Therapeutic Discovery

Date: May 6, 2014

LifeMap Solutions, Inc.

By: s/Corey Bridges

Name: Corey Bridges

Title: CEO

Date: May 6, 2014

I have read and understand
the responsibilities of
the Principal Investigator
under this Agreement
and agree to abide by them and fulfill them:

By: s/Eric Schadt

Date: May 6, 2014

Attachment A

Development Activities

[*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]

Attachment B

Budget

[*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]

Attachment C

Visiting Scientist Agreement

This Visiting Scientist Agreement (the "**Agreement**") is entered into as of _____(the "**Effective Date**"), by and between LifeMap Solutions, Inc., a corporation organized and existing under the laws of Delaware and having a principal place of business at 150 East 57th Street, New York, NY 10022 ("**LifeMap**"), and **Icahn School of Medicine**, a not-for-profit New York corporation organized and existing under the Laws of the State of New York, and having a principal place of business at One Gustave L Levy Plac, New York, NY 10029, and its Affiliates (collectively, "**Mount Sinai**"). LifeMap and Mount Sinai may each be referred to herein individually as a "**Party**" and collectively as the "**Parties**."

WHEREAS, LifeMap and Mount Sinai are parties to that certain Co-Development and Option Agreement effective as of May 1, 2014 (the "**Co-Development Agreement**");

WHEREAS, as provided in the Co-Development Agreement (at Section 2.3), the Parties contemplate the possibility that Mount Sinai will host LifeMap employees as participants in research under the Co-Development Agreement on Mount Sinai premises using Mount Sinai facilities ("LifeMap Visiting Scientists"); and

NOW, THEREFORE, in consideration of the mutual promises and covenants set forth below and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties hereby agree as follows:

1. DEFINITIONS AND INTERPRETATION.

1.1 Defined Terms. Capitalized terms not defined herein shall have the meanings assigned to them in the Co-Development Agreement.

1.2 Interpretation. Except where the context expressly requires otherwise, (a) the use of any gender herein shall be deemed to encompass references to either or both genders, (b) the words "include", "includes" and "including" shall be deemed to be followed by the phrase "without limitation," (c) the word "will" shall be construed to have the same meaning and effect as the word "shall," (d) any definition of or reference to any agreement, instrument or other document herein shall be construed as referring to such agreement, instrument or other document as from time to time amended, supplemented or otherwise modified (subject to any restrictions on such amendments, supplements or modifications set forth herein), (e) any reference herein to any person shall be construed to include the person's successors and assigns, (f) the words "herein," "hereof," and "hereunder," and words of similar import, shall be construed to refer to this Agreement in its entirety and shall not be understood as a reference solely to a particular provision of this Agreement, (g) all references herein to Sections or Exhibits shall be construed to refer to Sections or Exhibits of this Agreement, and references to this Agreement include all Exhibits hereto, (h) the word "notice" means notice in writing (whether or not specifically stated) unless expressly stated otherwise, and shall include notices, consents, approvals and other written communications contemplated under this Agreement, (i) provisions that require that a Party or the Parties hereunder "agree," "consent" or "approve" or the like shall require that such agreement, consent or approval be specific and in writing unless expressly stated otherwise, whether by written agreement, letter, approved minutes or otherwise (but excluding e-mail and instant messaging), and (j) references to any specific law, rule or regulation, or article, section or other division thereof, shall be deemed to include the then-current amendments thereto or any replacement or successor law, rule or regulation thereof.

1.3 In Event of Conflict, Co-Development Agreement Controls. In the event that any terms or obligations set forth herein are determined to be in conflict with the Co-Development Agreement, the terms and conditions fo the Co-Development Agreement shall control.

2. Visiting Scientists

2.1 "**Visiting Scientist**" means (a) an employee of LifeMap undertaking Development Activities under the supervision of the Principal Investigator pursuant to the Co-Development Agreement on Mount Sinai premises.

2.2 General. Each Visiting Scientist shall remain an employee of Lifemap and shall work only as authorized by the Co-Development Agreement on Mount Sinai's premises during normal business hours. Each Visiting Scientist shall be accountable to LifeMap with respect to reporting of vacation, sick time and other leave, as well as performance objectives and all other personnel matters.

2.3 Designation of Visiting Scientists. All Visiting Scientists shall be authorized and identified in Attachment A to the Co-Development Agreement or in an amendment to Attachment A signed by both Parties.

3. LIFEMAP RESPONSIBILITIES.

Lifemap shall be responsible for paying each Visiting Scientist's salary and other compensation, employment benefits, withholding taxes, expense reimbursements and other costs related to employment with Lifemap. Lifemap shall also be responsible for providing and maintaining worker's compensation insurance and commercial general liability insurance covering the activities of each Visiting Scientist during the Co-Development Agreement Term, including for work performed on Mount Sinai's premises. Lifemap shall deliver certificates evidencing such insurance to Mount Sinai upon request. Lifemap agrees that each Visiting Scientist shall be subject to and comply with Mount Sinai's policies regarding discrimination, harassment and other employment related complaints, rules of conduct, substance abuse/rehabilitation, equal opportunity/affirmative action, and electronic communications and computer systems as if Visiting Scientist were an employee of Mount Sinai. Lifemap agrees that each Visiting Scientist, while working on Mount Sinai's premises, shall comply with all other reasonable and relevant health and safety and security requirements and other reasonable instructions issued by Mount Sinai or its representatives. Each Visiting Scientist will execute and deliver to Mount Sinai a Letter of Acknowledgement and Understanding in substantially the form attached hereto. Any changes to the form attached as Exhibit A must be approved in writing by both Parties.

4. MOUNT SINAI RESPONSIBILITIES.

Each Visiting Scientist shall be allowed to attend non-confidential meetings and training sessions conducted by or on behalf of Mount Sinai to the extent reasonably required by their responsibilities under the Development Activities. Mount Sinai shall treat as Confidential Information of Lifemap any personal data regarding any Visiting Scientist or other employees of Lifemap that it obtains in connection with this Agreement. A Visiting Scientist shall not be asked to work on any matter other than the Development Activities. For the avoidance of doubt, a Visiting Scientist will not (i) participate in any employee benefit plans of Mount Sinai or receive any other form of compensation from Mount Sinai or (ii) have any express or implied power to enter into any contracts or commitments or to incur any liabilities in the name of, or on behalf of, Mount Sinai, or to bind Mount Sinai in any respect whatsoever. In addition, Mount Sinai shall not be liable for the payment of any wage, salary or compensation of any kind for any service performed by a Visiting Scientist.

5. INTELLECTUAL PROPERTY.

[*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]

6. CONFIDENTIALITY.

6.2 Confidentiality. The confidentiality obligations of the Co-Development Agreement are incorporated herein by reference, without regard to any expiration or termination of the Co-Development Agreement, and all Confidential Information disclosed in connection with this Agreement shall be subject to the confidentiality provisions of the Co-Development Agreement, and all references to "this Agreement" therein shall be deemed to be references also to this Agreement. In addition, a Visiting Scientist is not permitted to bring any confidential information or materials of any Third Party onto Mount Sinai's premises or otherwise disclose to or use at Mount Sinai any such confidential information or materials without the prior written consent of Mount Sinai and an authorized representative of the Third Party.

6.2 Public Announcements; Publications. Article 10 of the Co-Development Agreement is incorporated herein by reference, provided however that all references to "this Agreement" therein shall be deemed also to be references to this Agreement.

7. REPRESENTATIONS.

7.1 Mutual Representations. The Parties hereby represent to each other that:

7.1.1 it is duly organized, validly existing and in good standing under the laws of the jurisdiction of its organization;

7.1.2 it has the power and authority to execute and deliver this Agreement and to perform its obligations hereunder; and

7.1.3 the execution, delivery and performance by such Party of this Agreement and its compliance with the terms and provisions hereof does not and will not conflict with or result in a breach of or default under any contract to which it is a party as of the effective date of this Agreement.

8. TERM AND TERMINATION.

8.1 Term. The term of this Agreement will commence on the date of last signature hereto and shall expire upon expiration or termination of the Co-Development Agreement.

8.2 Termination for Cause. A Party may terminate this Agreement for cause, at any time during the term of this Agreement, by giving written notice to the other Party in the event that such other Party commits a material breach of its obligations under this Agreement and such material breach remains uncured for ninety (90) days, measured from the date written notice of such material breach is given to such other Party.

8.3 Effects of Termination.

8.3.1 General. In the event of expiration or termination of this Agreement for any reason, except as otherwise expressly provided herein, all rights and obligations of each Party hereunder shall cease, and each Visiting Scientist's access to Mount Sinai's facilities shall immediately terminate.

8.3.2 Termination of Development Plan. In the event that the Co-Development Agreement is terminated with respect to any Development Plan, and not with respect to all Development Activities, except as otherwise expressly provided herein, all rights and obligations of each Party hereunder with respect to such terminated Development Plan shall cease, but this Agreement shall otherwise remain in full force and effect (including with respect to all Development Activities not so terminated).

8.3.3 Termination of Visiting Scientist. If a Visiting Scientist fails to comply with Mount Sinai policies, requirements or instructions in accordance with this Agreement or otherwise to comply with its obligations under this Agreement, then (a) such individual shall cease to be a Visiting Scientist hereunder upon Mount Sinai giving written notice thereof to Lifemap and (b) the Parties shall, if Mount Sinai agrees to do so in its discretion, cooperate to identify and designate in writing a replacement Visiting Scientist to the extent available. In the event that (i) the status of an individual as a Visiting Scientist is terminated pursuant to the preceding sentence or (ii) the employment of any Visiting Scientist with Lifemap is terminated for any reason, except as otherwise expressly provided herein, all rights and obligations hereunder with respect to such terminated Visiting Scientist shall cease and such terminated Visiting Scientist's access to Mount Sinai's facilities shall immediately terminate, but this Agreement shall otherwise remain in full force and effect.

8.3.4 Accrued Rights. Expiration or termination of this Agreement for any reason shall be without prejudice to any right which shall have accrued to the benefit of either Party prior to such termination, including damages arising from any breach under this Agreement. Expiration or termination of this Agreement shall not relieve either Party from any obligation which is expressly indicated to survive such expiration or termination.

8.3.5 Survival. The following sections, together with any sections that expressly survive, shall survive expiration or termination of this Agreement for any reason: **Error! Reference source not found.**, 0, 0, 0, 0 and 11.

9. INDEMNIFICATION.

Each Party will indemnify and hold harmless the other Party and such other Party's Sublicensees, Affiliates and their respective employees, trustees, medical and professional staff, officers, directors and agents (each, an "**Indemnified Party**") from and against any and all liability, loss, expense, action, suit, claim, demand, judgment or prosecution ("**Claims**") that may be brought or instituted against such other Party and/or an Indemnified Party, in proportion to and to the extent that such Claims are based on, resulting from or arising out of the material breach by the indemnifying Party of any of its representations, warranties or covenants set forth herein, except to the extent that such Claims are caused by or result from the negligence or intentional acts or omissions of such other Party and/or any Indemnified Party. Section 12 of the Co-Development Agreement is incorporated herein by reference, and any claim for indemnification pursuant to Section 9 of this Agreement shall be subject to the provisions of Section 12 of the Co-Development Agreement.

10. COPY OF AGREEMENT.

Lifemap shall provide each Visiting Scientist with a copy of this Agreement.

11. MISCELLANEOUS.

11.1 Assignment. Neither this Agreement nor any rights or obligations hereunder may be assigned by either Party, without the prior written consent of the other Party. Any assignment not in accordance with this Section 0 shall be void.

11.2 Force Majeure. Each Party shall be excused from the performance of its obligations under this Agreement to the extent that such performance is prevented by force majeure (defined below) and the nonperforming Party promptly provides notice of the prevention to the other Party. Such excuse shall be continued so long as the condition constituting force majeure continues and the nonperforming Party takes Commercially Reasonable Efforts to remove the condition. For purposes of this Agreement, "force majeure" shall include conditions beyond the control of the Parties, including an act of God, act of terrorism, voluntary or involuntary compliance with any Law or order of any government, war, civil commotion, labor strike or lock-out, epidemic, failure or default of public utilities or common carriers or destruction of production facilities or materials by fire, earthquake, storm or like catastrophe.

11.3 Notices. If to Lifemap: Notices must be provided to the following address or such other address as provided by one Party to the other in writing according to the paragraph below:

If to Mount Sinai:

Icahn School of Medicine at Mount Sinai
Mount Sinai Innovation Partners
Attention: Director
770 Lexington Avenue, 14th Floor
New York, NY 10065

with a copy for legal notices only to:

Icahn School of Medicine at Mount Sinai
Attention: Office of General Counsel
One Gustave L. Levy Place, Box 1099
New York, NY 10029

If to LifeMap:

LifeMap Solutions, Inc.
150 East 57th Street,
New York, NY 10022

with a copy for legal notices only to:

Kenneth S. Elsner
1020 Plain Street, Suite 290
Marshfield, MA 02050

Notices so given will be effective upon the earlier of (i) receipt by the party to which notice was provided, or (ii) the fifth business day after mailing. Breach of contract notices must specify in detail the nature of the breach and the remedy requested by the party giving notice. Notices to a party must be sent to the address and number specified above. If a party wishes to change its address for notices, the change will become effective only on the date specified in such notice or 60 days after the new address was provided, whichever is later. Rejection or inability to deliver a notice because of a change in address for which no or insufficient notice was given will be deemed to be receipt of the notice as of the date of such rejection or inability to deliver.

11.4 Amendment. No amendment, modification or supplement of any provision of this Agreement shall be valid or effective unless made in writing and signed by a duly authorized officer of each Party.

11.5 Waiver. No provision of this Agreement shall be waived by any act, omission or knowledge of a Party or its agents or employees except by an instrument in writing expressly waiving such provision and signed by a duly authorized officer of the waiving Party. The waiver by either of the Parties of any breach of any provision hereof by the other Party shall not be construed to be a waiver of any succeeding breach of such provision or a waiver of the provision itself.

11.6 Severability. If any clause or portion thereof in this Agreement is for any reason held to be invalid, illegal or unenforceable, the same shall not affect any other portion of this Agreement, as it is the intent of the Parties that this Agreement shall be construed in such fashion as to maintain its existence, validity and enforceability to the greatest extent possible. In any such event, this Agreement shall be construed as if such clause or portion thereof had never been contained in this Agreement, and there shall be deemed substituted therefor such provision as will most nearly carry out the intent of the Parties as expressed in this Agreement to the fullest extent permitted by applicable Law.

11.7 Descriptive Headings. The descriptive headings of this Agreement are for convenience only and shall be of no force or effect in construing or interpreting any of the provisions of this Agreement.

11.8 Export Control. This Agreement is made subject to any restrictions concerning the export of products or technical information from the United States of America or other countries which may be imposed upon or related to either Party.

11.9 Dispute Resolution. If any dispute or disagreement arises between LifeMap and Mount Sinai in respect of this Agreement, they shall follow the procedures set forth in Section 13.7of the Co-Development Agreement, which is incorporated herein by reference.

11.10 Governing Law. Section 13.7 of the Co-Development Agreement is hereby incorporated by reference with the understanding the references therein to "Agreement" shall be understood also as references to this Agreement.

11.11 Entire Agreement. This Agreement, including its Exhibits, and the Co-Development Agreement and its exhibits and other attachments, constitute and contain the complete, final and exclusive understanding and agreement of the Parties and supersede any and all prior negotiations, correspondence, understandings and agreements, whether oral or written, between the Parties respecting the subject matter hereof and thereof.

11.12 Independent Contractors. Both Parties are independent contractors under this Agreement. Nothing herein contained shall be deemed to create an employment, agency, joint venture or partnership relationship between the Parties or any of their agents or employees, or any other legal arrangement that would impose liability upon one Party for the act or failure to act of the other Party. Neither Party shall have any express or implied power to enter into any contracts or commitments or to incur any liabilities in the name of, or on behalf of, the other Party, or to bind the other Party in any respect whatsoever.

11.13 Counterparts. This Agreement may be executed in two (2) counterparts, each of which shall be an original and both of which shall constitute together the same document. Counterparts may be signed and delivered by facsimile or PDF file, each of which shall be binding when received by the applicable Party. The Parties agree that a copy of the original signature (including an electronic copy) may be used for any and all purposes for which the original signature may have been used. The Parties agree that they will have no rights to challenge the use or authenticity of this Agreement based solely on the absence of an original signature.

11.14 Further Actions. Each Party agrees to execute, acknowledge and deliver such further instruments, and to do all such other acts, as may be necessary or appropriate in order to carry out the purposes and intent of this Agreement.

IN WITNESS WHEREOF, duly authorized representatives of the Parties have duly executed this Agreement as of the Effective Date.

Lifemap Solutions, Inc.	Icahn School of Medicine at Mount Sinai
By: _____	By: _____
Name:	Name:
Title:	Title:

Letter of Acknowledgement and Understanding

Reference is made to the Visiting Scientist Agreement effective as of _____between LifeMap Solutions, Inc., a corporation organized and existing under the laws of Delaware and having a principal place of business at 150 East 57th Street, New York, NY 10022 ("**LifeMap**"), and **Icahn School of Medicine**, a not-for-profit New York corporation organized and existing under the Laws of the State of New York, and having a principal place of business at One Gustave L Levy Place, New York, NY 10029, and its Affiliates (collectively, "**Mount Sinai**"). Capitalized terms used but not defined in this Letter of Acknowledgement shall have the meanings assigned to them in the Visiting Scientist Agreement.

VISITING SCIENTISTS:

I acknowledge I have received copies of or access to the following Mount Sinai policies:

If I have any questions or need to report a concern regarding the foregoing policies, I understand I can contact Mount Sinai Innovation Partners at (212) 659-9680.

I understand that Mount Sinai reserves the right to make changes to its policies or procedures, whenever it deems it necessary or useful to do so.

I understand that I am responsible for understanding and complying with Mount Sinai's policies, procedures and instructions as applicable pursuant to the Agreement. Further, I have been instructed to discuss any outstanding issues or concerns regarding the foregoing policies, procedures and instructions with Mount Sinai's Environmental Health and Safety Department or the Human Resources Department, as applicable.

I acknowledge I have received a copy of the Visiting Scientist Agreement and agree to be bound by all provisions of the Agreement and, through it, the Co-Development Agreement, that are applicable to me in my capacity as a Visiting Scientist thereunder. I further acknowledge, without limitation, that I understand the provisions of the Co-Development Agreement which are cited in the Visiting Scientist Agreement and relate to confidentiality, publication, intellectual property, and prohibitions on the use, disclosure or transfer of materials outside of Mount Sinai.

Read and acknowledged by:

Print Name: _____

Signature: _____

Institution: _____

Date: _____

Attachment D

Background Intellectual Property

Promptly after the first Steering Committee (see Section 2.1 of the Agreement) the Parties shall identify and list by amendment the Background Intellectual Property anticipated to be used in the Development Activities.

Attachment E

License Terms

Capitalized terms not otherwise defined in this **Attachment E** shall have the same meaning as defined in the Agreement to which this **Attachment E** is attached and incorporated.

Parties	Icahn School of Medicine at Mount Sinai, a nonprofit education corporation organized and existing under the laws of the State of New York having an office at One Gustave L. Levy Place, New York, New York 10029 ("**Mount Sinai**"), and LifeMap Solutions, Inc., a corporation organized and existing under the laws of Delaware ("**LifeMap**"), having a place of business at 1301 Bay Harbor Parkway, Suite 100, Alameda, CA 94502. LifeMap shall include LifeMap and its Affiliates. Mount Sinai shall include Mount Sinai and its Affiliates. "*Affiliate*" means a legal entity that is controlling, controlled by or under common control with a Party. For purposes of the definitive license agreement, the word "*control*" means (x) the direct or indirect ownership of more than fifty percent (50%) of the outstanding voting securities of a legal entity, (y) the right to receive fifty percent (50%) or more of the profits or earnings of a legal entity, or (z) the right to determine the policy decisions of, or to direct or cause the direction of the management of, a legal entity. Each Party shall be fully liable for its Affiliate's compliance with the terms and obligations of the definitive license agreement.
Patent Rights	United States and foreign patents and/or patent applications claiming Mount Sinai Intellectual Property or Joint Intellectual Property, as well as any and all patents issuing therefrom and from all divisionals and continuations, reissues, reexaminations, renewals, substitutions, and extensions thereof, that claim priority to such patents and/or patent applications; for clarity this includes but is not limited to all claims of continuation-in-part applications (solely to the extent such continuation-in-part can claim the same priority date) and patents issuing thereon that claim priority to said United States patent applications. Such Patent Rights will be specifically listed/described in an exhibit to the definitive license agreement.
Mount Sinai Intellectual Property and Joint Intellectual Property	As defined in **Section 6.2** of the Agreement
Technical Information	Technical Information is all Intellectual Property Rights not covered by a Valid Claim, including Results, the Mount Sinai Intellectual Property, the Code, and the LMN Engine, owned solely or jointly by, or licensed by, Mount Sinai. For clarity, Technical Information expressly *excludes* Logic and LMN Components. Such Technical Information will be specifically listed/described in an exhibit to the definitive license agreement.
Logic	Underlying know-how possessed by Mount Sinai prior to the effective date of the definitive license agreement that relates to development of software, algorithms, and databases capable of analyzing complex data sets and generating predictive models.

Mount Sinai Background Intellectual Property	Background Intellectual Property owned by, or licensed by, Mount Sinai that are necessary to practice the Patent Rights and/or Technical Information and are available for licensing. Such Mount Sinai Background Intellectual Property will be specifically listed/described in an exhibit to the definitive license agreement, and shall include the Background Intellectual Property as defined in the Agreement to which this **Attachment E** is attached.
Valid Claim	(a) an unexpired claim of an issued patent within the Patent Rights that has not been ruled unpatentable, invalid or unenforceable by a final and unappealable decision of a court or other competent authority in the subject country; or (b) a claim of a pending application within the Patent Rights.
Deliverables	Copies of the Code and Documentation and other related materials reasonably requested by LifeMap from time to time (but Mount Sinai shall not be required to deliver such more frequently than [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] in the case of Code) shall be delivered by Mount Sinai to LifeMap (and shall be held strictly confidential by LifeMap in accordance with **Article 8**; provided, however, LifeMap may disclose such information, subject to reasonable confidentiality provisions, or as otherwise reasonably appropriate, with respect to the development and commercialization of the Licensed Products and Licensed Services); provided that, if reasonable, only the Improvements need be delivered. If LifeMap requires a full copy of any of the foregoing, Mount Sinai shall reasonably comply.
Licensed Products	Products or part(s) thereof, that are made, made for, Used (including used), imported, sold or offered for sale by LifeMap, its Distributors (as defined below), or its Sublicensees: (i) where in the absence of the definitive license agreement, such activity would infringe at least one Valid Claim; or (ii) where such products arise or are derived from the use of, or otherwise incorporate, Technical Information, Logic, LMN Components, and/or Mount Sinai Background Intellectual Property, including, for the avoidance of doubt, Code and the LMN Engine (to the extent, with respect to all of the foregoing, not solely owned by LifeMap).
Licensed Service	Any service, including without limitation database access, provided by LifeMap, its Distributors (as defined below), or its Sublicensees to a third party in exchange for consideration where such service makes use of Licensed Product(s) or otherwise exploits or monetizes Mount Sinai Technical Information, Logic, LMN Components, and/or Background Intellectual Property, including, for the avoidance of doubt, Code and the LMN Engine (to the extent, with respect to all of the foregoing, not solely owned by LifeMap).

License Grant	Subject to agreement on final terms, Mount Sinai and its Affiliates will grant to LifeMap, and LifeMap will accept, a worldwide exclusive, right and license during the Term of the definitive license agreement, with the right to sublicense through multiple tiers, under the Patent Rights and Mount Sinai's rights (which "rights" as used in this Section, shall include, Intellectual Property Rights), including rights in the Results, and Mount Sinai's rights in Joint Intellectual Property and Joint Results, the LMN Engine, and the Code and any related Documentation (to the extent, with respect to all of the foregoing, not solely owned by LifeMap) (i) to research, discover, develop, make, have made, Use, have used, import, have imported, lease, sell, have sold and offer for sale Licensed Products and Licensed Services in the Field of Use and throughout the Territory; and (ii) to Use (including use) the Mount Sinai Technical Information to research, discover, develop, make, have made, Use, have used, import, have imported, lease, sell, have sold and offer for sale Licensed Products and Licensed Services in the Field of Use and throughout the Territory. Notwithstanding the foregoing, the Parties acknowledge and agree any exclusive license granted to Mount Sinai's rights outlined above, ***expressly excludes*** (a) an exclusive license to EMR Data and/or LMN Components contained and/or incorporated in the LMN Engine or any Improvements thereto; (b) the Non-Exclusive Rights; and (c) the right to sell any of Mount Sinai's Results and EMR Data, except to the extent incorporated in a physical Licensed Product for use as part of such Licensed Product. Subject to agreement on final terms, Mount Sinai and its Affiliates will grant to LifeMap, and LifeMap will accept, a worldwide non-exclusive, right and license during the Term of the definitive license agreement, with the right to sublicense through multiple tiers, under the Patent Rights and Mount Sinai's rights to (i) the Mount Sinai Background Intellectual Property; (ii) the Non-Exclusive Rights; (iii) the Logic, and (iv) EMR Data and/or LMN Components contained and/or incorporated in the LMN Engine (which LMN Engine is exclusively licensed under the definitive license agreement with respect to its components that are not EMR Data and/or LMN Components (to the extent such EMR Data and/or LMN Components is necessary to drive the LMN Engine, as applicable), and any related Documentation, to research, discover, develop, make, have made, Use, have used, import, have imported, lease, sell, have sold and offer for sale Licensed Products and Licensed Services in the Field of Use and throughout the Territory.
Non-Exclusive Rights	· Code that pertains to analysis of genetic data sets · Code that pertains to compiling data sets
Retained Rights	Any and all licenses granted under the definitive license are subject to: (a) the right of Mount Sinai to make and to use the subject matter described and/or claimed in the Patent Rights and Mount Sinai Technical Information and to distribute to not-for-profit third parties, for academic research, teaching, and educational purposes only; such use shall not be for any commercial purpose, however, industrially sponsored academic research shall not be considered a commercial purpose; (b) the rights, conditions and limitations imposed by U.S. law (see 35 U.S.C. § 202 et seq. and regulations pertaining thereto), including the royalty-free non-exclusive license granted to the U.S. government; (c) the right of Mount Sinai to practice the Patent Rights and Mount Sinai Technical Information for clinical care purposes at Mount Sinai; (d) the right of Mount Sinai to use or otherwise exploit Logic, EMR Data, LMN Components, and Mount Sinai Background Intellectual Property for any and all purposes; and (e) the ownership rights of LifeMap to all User Data.

Use	Defined in **Article 1** of the Agreement.
Term	Subject to the terms of the Agreement, and as further specified in this Attachment, from the Effective Date of the definitive license agreement until the expiration of the Royalty Term.
Territory	Worldwide
Consumer	Defined in **Article 1** of the Agreement.
User Data	Defined in **Article 1** of the Agreement.
Mobile User Application	Defined in **Article 1** of the Agreement.
Field of Use	Consumer applications (including, for clarity, Internet, Web-based, mobile user and Mobile User Applications, databases and software products), based on interpretation and/or presentation of Wide Scale Health Related Information which is defined as one or more components of genetic information, clinical data and other information of individuals relating to human disease, health and/or wellness, in which the genetic information component (if such component is available) involves [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]
Business Development Plan	Prior to execution of a definitive license, LifeMap shall provide Mount Sinai with a detailed business development plan. The Parties shall discuss in good faith any of Mount Sinai's requests for additional details or clarifications to such business development plan.

<table>
<tr><td>Due Diligence</td><td colspan="2">LifeMap shall use reasonable commercial efforts to develop and commercialize Licensed Products. LifeMap shall be required to demonstrate suitable investment in the development of Licensed Products. The Parties shall negotiate in good faith defined diligence milestones and timelines to be included in the definitive license agreement to ensure such Licensed Products are being diligently developed.</td></tr>
<tr><td rowspan="5"></td><td>Diligence Milestone</td><td>Due Date</td></tr>
<tr><td>Documentation of at least [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] in funding [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] committed by LifeMap to fund development of Licensed Products (the investment made into LifeMap prior to the due date will be counted toward the funding sum above)</td><td>[*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] months after execution of definitive license agreement</td></tr>
<tr><td>Prototype complete</td><td>[*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] months after execution of definitive license agreement</td></tr>
<tr><td>Beta launch</td><td>[*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] months after execution of definitive license agreement</td></tr>
<tr><td>Public product launch</td><td>[*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] months after execution of definitive license agreement</td></tr>
<tr><td colspan="2">If LifeMap fails to meet such diligence milestones as defined in the definitive license agreement, Mount Sinai can convert said license to a non-exclusive license provided that any delays caused by Mount Sinai will extend the foregoing due dates on a day-for-day basis.</td></tr>
<tr><td>Copies of the Code and Documentation</td><td colspan="2">Copies of the Code and Documentation shall be delivered by Mount Sinai to LifeMap not less than every [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] days (and shall be held strictly confidential by LifeMap in accordance with Article 8; provided, however, LifeMap may disclose such information, subject to reasonable confidentiality provisions, or as otherwise reasonably appropriate, with respect to the development and commercialization of the Licensed Products and Licensed Services); provided that, if there are only Improvements and if reasonable, only the Improvements need be delivered. If LifeMap requires a full copy of any of the foregoing, Mount Sinai shall reasonably comply.</td></tr>
</table>

Patent Maintenance and Reimbursement	[*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]
Patent Extension	LifeMap shall promptly notify Mount Sinai of any marketing authorization for any Licensed Product for which an application for patent term extension may be based, including any third-party product, or any other event in any country that would enable Mount Sinai or LifeMap as appropriate to apply for patent term extension. For clarity, LifeMap will notify Mount Sinai of an opportunity to apply for patent term extensions as soon as the event triggering the opportunity for application has occurred. LifeMap agrees to cooperate fully with Mount Sinai to provide any information or documentation necessary to support an application for patent term extension.
Royalty Term	On a Licensed Product-by-Licensed Product or Licensed Service-by-Licensed Service and country-by-country basis, from first commercial sale or commercial license, whichever comes first, until the later of: (a) expiration of the last Patent Rights covering such Licensed Product or Licensed Service in such country; (b) expiration of any market exclusivity period granted by a regulatory agency with respect to such Licensed Product or Licensed Service in such country; or (c) LifeMap's final discontinuation of sale or commercial licensing of a Licensed Product or Licensed Service in such country. For clarity, should LifeMap discontinue sale of a Licensed Product or Licensed Service in a country and later resume sale of such Licensed Product or Licensed Service in said country, LifeMap would still be subject to the royalty obligations hereunder and its license rights hereunder.

Net Sales	The gross amount, prior to any discounts or other list price reductions, invoiced by LifeMap and its Affiliates and its Sublicensee(s) for sales of Licensed Products or Licensed Services for end use or consumption by third parties that are not Affiliates or Sublicensees of the selling party (unless such purchasing Affiliate or Sublicensee is the end user of the Licensed Product or Licensed Service, in which case the amount billed therefore shall be deemed to be the same amount that would be billed to a third-party end user in an arm's-length transaction) less the total of the following deductions to the extent they are included in the gross invoiced sale price of the Licensed Products or Licensed Services or otherwise directly paid or incurred by LifeMap or its Affiliates or its Sublicensees with respect to the sale of the Licensed Product or Licensed Services to such third party: (a) normal and customary quantity and/or cash discounts and sales returns and allowances, including, without limitation, those granted on account of price adjustments, billing errors, rejected goods, damaged goods, returns, rebates actually allowed and taken, administrative or other fees or reimbursements of similar payments to wholesalers or other distributors, buying groups, or other institutions; (b) any rebates or similar payments made with respect to sales paid for by any governmental or regulatory authority such as, by way of illustration and not in limitation of the Parties' rights hereunder, Federal or state Medicaid, Medicare or similar state program or equivalent foreign governmental program; (c) customs or excise duties or other duties directly imposed and related to the sales making up the gross invoice amount; (d) sales and other taxes and duties directly related to the sale, to the extent that such items are included in the gross invoice price (but not including taxes assessed against the income derived from such sale); (e) freight, postage, shipping, and insurance expenses (if separately identified in such invoice).
Running Royalties	LifeMap will pay to Mount Sinai a quarterly royalty of [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] percent ([*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]%) of Net Sales of all Licensed Products and Licensed Services that are sold by LifeMap, its Affiliates, and/or Sublicensees.

Reports and Records	· **Royalty Reports**: Within [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] days after the end of each calendar quarter following first commercial sale or commercial licensing of a Licensed Product or Licensed Service, LifeMap will deliver to Mount Sinai a detailed report, certified by the chief financial officer of LifeMap, detailing the calculation of all royalties and fees due to Mount Sinai for such quarter. The report will include, at a minimum: (a) the number of Licensed Products or Licensed Services involved in sales, listed by product and by country; (b) gross consideration invoiced, billed or received for sales in such quarter; (c) Net Sales, listed by product or service and by country including an itemized list of all deductions permitted in the definition of Net Sales; (e) sublicense fees and other consideration received by LifeMap from Sublicensees, listed by product and by country; and (f) royalties and fees owed to Mount Sinai, listed by category, by product or service, and by country. · **Development Reports**: LifeMap will provide Mount Sinai annually with detailed written progress reports discussing the development, evaluation, testing, and commercialization of all Licensed Products or Licensed Services and development plans for the upcoming year. Within [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] days of receipt of such development report, Mount Sinai can request additional information and clarification and LifeMap shall provide to Mount Sinai a revised development report addressing Mount Sinai's request for additional information and clarification within [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] days of Mount Sinai's request. · **Records**: LifeMap will maintain, and will cause its Affiliates and Sublicensees to maintain, complete and accurate books and records to verify Net Sales, and all of the royalties, fees, and other payments payable under the definitive license Agreement. The records for each calendar quarter will be maintained for at least [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] years after the calendar quarter to which they pertain. · **Audit Rights**: Upon reasonable prior written notice to LifeMap, LifeMap and its Affiliates and Sublicensees will provide Mount Sinai and its accountants with access to all of the books and records required by the definitive license agreement to conduct a review or audit of all of the royalties, fees, and other payments payable under the definitive license agreement. Access will be made available: (a) during normal business hours; (b) in a manner reasonably designed to facilitate Mount Sinai's review or audit without unreasonable disruption to LifeMap's business; and (c) no more than once each calendar year during the term of the definitive license agreement and for a period of [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] years thereafter. LifeMap will promptly pay to Mount Sinai the amount of any underpayment determined by the review or audit plus accrued interest unless such amount is subject to a good faith dispute, which dispute shall be settled in accordance with the dispute resolution process. If the review or audit determines that LifeMap has underpaid any royalty payment by [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] percent ([*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]%) or more, then LifeMap will also promptly pay the costs and expenses of Mount Sinai and its accountants in connection with the review or audit. [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] an independent audit of all of the royalties, fees, and other payments payable under the definitive license agreement. Promptly after completion of the audit, LifeMap will provide to Mount Sinai a copy of the report of the independent auditors.

Sublicensee and Distributor	A "**Sublicensee**" shall be any third party (other than end users or Affiliates) granted the right by LifeMap to develop, use, make, sell, offer for sale, or import Licensed Products or Licensed Service or otherwise make use of, monetize, and/or exploit the Patent Rights, Mount Sinai Technical Information, Logic, LMN Components, and/or Mount Sinai Background Intellectual Property. A "**Distributor**" shall be any third party (other than end users or Affiliates) granted the right by LifeMap to distribute, sell, import or offer for sale Licensed Products or Licensed Service. For clarity, a Distributor shall **not** be granted the right by LifeMap to develop, use, or make Licensed Products or Licensed Service or otherwise make use of, monetize, and/or exploit the Patent Rights, Mount Sinai Technical Information, Logic, LMN Components, and/or Mount Sinai Background Intellectual Property. For clarity, the Parties acknowledge and agree that the term "sublicense" or "sublicense agreement," as used in the definitive license agreement, shall mean any license by and between LifeMap and a Sublicensee or Distributor under which LifeMap grants to such Sublicensee or Distributor the rights outlined above and such "sublicense" will be subject to the "Sublicensing Obligations" and the "Sublicensing Revenue", as applicable to whether such "sublicense" is to a Sublicensee or a Distributor in accordance with the terms of the definitive license agreement as outlined herein.

Sublicensing Obligations	(a) LifeMap will submit to Mount Sinai the intended sublicense agreement with a Sublicensee or Distributor as negotiated prior to execution. For the avoidance of doubt, as end users are not considered "Sublicensees" under the definitive license agreement, web, online, end user, shrinkwrap or other similar agreements (collectively "**User Agreements**") need not be provided to Mount Sinai. (b) Within [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] working days of the date LifeMap provides such intended sublicense agreement to Mount Sinai, Mount Sinai will notify LifeMap in writing of any clauses of such intended sublicense agreement that Mount Sinai can demonstrate do not comply with the definitive license agreement. All clauses that are consistent with the definitive license agreement shall be considered approved. If Mount Sinai notifies LifeMap of clauses that do not comply with the definitive license agreement, LifeMap will negotiate with the potential Sublicensee based on such notification by Mount Sinai; provided that, if LifeMap disagrees with Mount Sinai's interpretation, any such disagreement shall be resolved based upon mutual discussions, but to the extent such disagreement cannot be resolved, such dispute shall be subject to the dispute resolution provisions. If LifeMap can demonstrate that Mount Sinai properly received the draft sublicense agreement under the terms of the definitive license agreement and Mount Sinai does not provide LifeMap notice within the aforementioned term, then LifeMap may consider all clauses in the sublicense approved by Mount Sinai. Mount Sinai, however, at its sole discretion, will have the right to approve sublicenses with conditions different from those set forth in the definitive license agreement, as long as the approval is provided in writing. (c) Within [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] days after LifeMap enters into a sublicense agreement (for the avoidance of doubt, other than a User Agreement where such delivery is not necessary), LifeMap will deliver to Mount Sinai a complete and accurate copy of the entire executed sublicense agreement in the English language. If the original sublicense agreement is not in the English language, then LifeMap will provide Mount Sinai with a true certified translation copy in the English language. Mount Sinai's receipt of the sublicense agreement, however, will constitute neither an approval of the sublicense nor a waiver of any right of Mount Sinai or obligation of LifeMap under the definitive Agreement. (d) [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] (e) LifeMap's execution of a sublicense agreement will not relieve LifeMap of any of its obligations under the definitive license agreement. LifeMap is primarily liable to Mount Sinai for any act or omission of a Sublicensee or Distributor of LifeMap that would be a breach of the definitive license agreement if performed or omitted by LifeMap, and LifeMap will be deemed to be in breach of the definitive license agreement as a result of such act or omission. (f) In the event that LifeMap causes or experiences a bankruptcy or insolvency event (as shall be further defined in the definitive license agreement), all payments due to LifeMap from its Sublicensees or Distributor under the sublicense agreement will, upon notice from Mount Sinai to such Sublicensee or Distributor, become payable directly to Mount Sinai for the account of LifeMap. Upon receipt of any such funds, Mount Sinai will remit to LifeMap the amount by which such payments exceed the amounts owed by LifeMap to Mount Sinai.

Sublicensing Revenue	LifeMap will pay Mount Sinai the following percentages of all consideration, based on timing of Sublicensing, ***other*** than running royalties or an advancement payment creditable against future Net Sales ("Royalty Advance") received by LifeMap from Sublicensees, and/or Distributors, within [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] days of receipt of such consideration. Any non-cash consideration received by LifeMap from such Sublicensees and/or Distributor will be valued at its fair market value as of the date of receipt. For sublicenses to **Sublicensees**: [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] For sublicenses **Distributors**: [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] For further clarity, royalties shall be payable in accordance with the terms of the definitive license agreement for all Net Sales by a Sublicensee and/or Distributor as if it were Company. The Parties acknowledge and agree that any Royalty Advance received by Company from a Sublicensee and/or Distributor shall be subject to Company's Running Royalty obligation
Compelled Sublicensing	In the event that at any time [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] or more years after the effective date of the definitive license agreement Mount Sinai is given a written offer by an entity to license the Patent Rights or Technical Information to develop and commercialize a Licensed Product or Licensed Service in the Field of Use that is not being developed or commercialized by LifeMap (an "**Underdeveloped Indication**"), then the rights to develop such Licensed Product or Licensed Service for such Undeveloped Indication shall automatically revert to Mount Sinai unless LifeMap, within [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] days of the date Mount Sinai provides LifeMap with a written notice identifying such entity and describing in reasonable detail such written offer, either (a) offers a sublicense to such entity for such Undeveloped Indication on reasonable commercial terms; or (b) presents to Mount Sinai a credible development plan reasonably acceptable to Mount Sinai acting in good faith to pursue development of such Licensed Product for such Undeveloped Indication and begins to execute that plan.

Change of Control Fee	LifeMap will pay Mount Sinai certain percentages, as outlined below, of the then current equity value of LifeMap at the time of a Significant Transaction. The term "***Significant Transaction***" means the first to occur of a single transaction, or series of related transactions, consisting of or resulting in any of the following: (i) an assignment, other than to LifeMap Sciences, of the definitive license agreement; (ii) an initial public offering of securities by LifeMap (or its successor) or other transaction resulting in any of LifeMap's securities being traded on a nationally recognized stock exchange or automated quotation system; (iii) a sale, license or other disposition of all or substantially all of LifeMap's assets; or (iv) a reorganization, consolidation or merger of LifeMap, or sale or transfer of the securities of LifeMap, where the holders of LifeMap's outstanding voting securities before the transaction beneficially own less than fifty percent (50%) of the outstanding voting securities, or hold less than fifty percent (50%) of the voting power of the voting security holders of the surviving entity after the transaction. Notwithstanding anything above to the contrary, a Significant Transaction shall not be deemed to occur as a result of a bona fide, arm's-length equity financing for cash in which LifeMap issues securities (other than through an initial public offering described in clause (ii) above) representing more than fifty percent (50%) of the voting power of its security holders to venture capital or other similar professional investors who do not actively manage day-to-day operations of LifeMap. Payment shall be made to Mount Sinai within [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] days of such Significant Transaction. Up to five percent (5%) Change of Control Fee in exchange for the investment in LifeMap in the form of Waived Funds as provided under the co-development and option agreement where such Change of Control Fee is calculated as follows: [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] Where CoCF is the percentage due to Mount Sinai of the then equity value of LifeMap at the time of the Significant Transaction; and Where WF is the cumulative total of Waived Funds actually waived prior to the Significant Transaction, not to exceed [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] Where x is the dilution fraction. The dilution percentage will be calculated based on the total amounts invested in LifeMap to fund development of Licensed Products and based on the pre money valuations of each investment round. The Mount Sinai dilution will be equal to the dilution for the majority shareholder in the initial $[*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] investment round. The following example is used to clarify the calculation: a second investment round of $[*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] with a pre money valuation of $[*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] and a third investment round of $[*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] with a pre money valuation of $[*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] takes place. The value of "x" will then be based on $[*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]% for the second round, and a further [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]% for third round such that CoCFA will be equal to [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]%.

No Warranty	Subject to the following, the Patent Rights, Technical Information, Logic, and Background Intellectual Property are provided on an "as is" basis, and each Party makes no representations or warranties, express or implied. EXCEPT AS EXPRESSLY SET FORTH HEREIN, EACH PARTY MAKES NO WARRANTIES, EXPRESS OR IMPLIED, AS TO ANY MATTER WHATSOEVER, INCLUDING, WITHOUT LIMITATION, WARRANTIES WITH RESPECT TO THE CONDUCT, COMPLETION, SUCCESS OR PARTICULAR RESULTS, OR THE SCIENTIFIC OR COMMERCIAL VALUE OF THE DEVELOPMENT ACTIVITIES, OR THE CONDITION, OWNERSHIP, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR THE OUTCOME OF DEVELOPMENT ACTIVITIES. WITHOUT LIMITING THE FOREGOING, EACH PARTY DOES NOT GUARANTEE THAT ANY PATENT OR OTHER INTELLECTUAL PROPERTY RIGHTS SHALL RESULT FROM THE DEVELOPMENT ACTIVITIES, THAT THE SCOPE OF ANY PATENT OR OTHER INTELLECTUAL PROPERTY RIGHTS THAT MAY RESULT THEREFROM WILL COVER THE OTHER PARTY'S INTERESTS, OR THAT ANY SUCH PATENT OR OTHER INTELLECTUAL PROPERTY RIGHTS SHALL BE FREE OF DOMINANCE BY OTHER PATENTS, INCLUDING PATENTS BASED UPON INVENTIONS MADE BY OTHER INVENTORS AT SUCH PARTY INDEPENDENTLY OF THE DEVELOPMENT ACTIVITIES. EXCEPT IN THE CASE OF A BREACH OF THE FOLLOWING SENTENCE, EACH PARTY SHALL NOT BE LIABLE FOR ANY DIRECT, INDIRECT, CONSEQUENTIAL, PUNITIVE OR OTHER DAMAGES SUFFERED BY THE OTHER PARTY OR ANY OTHER PERSON RESULTING FROM THE DEVELOPMENT ACTIVITIES OR THE USE OF THE OTHER PARTY'S INTELLECTUAL PROPERTY PRODUCT. NOTWITHSTANDING THE FOREGOING, (i) EACH PARTY HERETO REPRESENTS THAT IT HAS NO ACTUAL KNOWLEDGE THAT ANY OF THE INTELLECTUAL PROPERTY RIGHTS TO BE UTILIZED HEREUNDER INFRINGE THE ACTIVITIES OF ANY THIRD PARTIES AND AGREES THAT IN UNDERTAKING THE OBLIGATIONS CONTAINED HEREIN IT SHALL NOT KNOWINGLY INFRINGE ANY SUCH THIRD PARTY INTELLECTUAL PROPERTY RIGHTS; AND (ii) MOUNT SINAI AGREES THAT IN ITS PERFORMANCE HEREUNDER IT SHALL NOT MAKE ANY CONTRIBUTIONS TO THE DEVELOPMENT ACTIVITIES THAT REQUIRE ANY MOUNT SINAI BACKGROUND INTELLECTUAL PROPERTY OR OTHER MOUNT SINAI INTELLECTUAL PROPERTY RIGHTS THAT ARE NOT LICENSED HEREUNDER.

Indemnification	LifeMap will indemnify, defend and hold harmless Mount Sinai from and against any and all liability, loss, damage, action, claim or expense that results from or arises out of: (a) the development, use, manufacture, promotion, sale or other disposition of any Licensed Products or Licensed Services by LifeMap or Sublicensees or other third parties, including end users, except as a result of, or to the extent caused by, the action or inaction of Mount Sinai; and (b) any breach by LifeMap or its Sublicensees of the definitive license agreement.
Insurance	LifeMap will procure and maintain policies of insurance, including [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]. Each policy shall be written on an occurrence basis and shall name Mount Sinai as additional insured on a primary and non-contributory basis.
Legal Jurisdiction and Venue	The definitive license agreement shall be construed and enforced in accordance with the laws of the State of New York without regard to any choice or conflict of laws. Any suit to enforce the agreement will be brought in the federal or state courts located in the State of New York.
Non-Use of Name	Except as otherwise provided in **Article 10** of the Agreement, neither Party, nor its employees and agents will use the other Party's name, seal, logo, trademark, or service mark, or any adaptation thereof, or the name, mark, or logo of the other Party in any way, except as may be required by applicable law, without the prior written consent of the other Party whose name is to be used. If Mount Sinai uses the Developed Intellectual Property outside the Field of Use, it will give credit as appropriate regarding LifeMap's involvement in the creation of such Developed Intellectual Property.

Assignment	LifeMap may assign the definitive license agreement or substantially all of the license agreement, either directly or by merger or operation of law, without the prior written consent of Mount Sinai, as long as: (a) at least [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] days before the proposed transaction, LifeMap gives Mount Sinai written notice and such background information as may be reasonably necessary to enable Mount Sinai to give an informed consent; (b) the assignee agrees in writing to be legally bound by this Agreement; and (c) the assignee agrees to deliver to Mount Sinai an updated business development plan within [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] days after the closing of the proposed transaction. Any permitted assignment will not relieve LifeMap of responsibility for performance of any obligation of LifeMap that has accrued at the time of the assignment. Any prohibited assignment will be null and void. Notwithstanding the foregoing, LifeMap shall be permitted to assign the definitive license agreement to LifeMap Sciences to the extent LifeMap and LifeMap Sciences will have fulfilled the obligations outlined under (a) and (b) above.
Global Social Responsibility	LifeMap and Mount Sinai shall take into consideration the principle of "Global Social Responsibility" when executing the full license agreement. "Global Social Responsibility" means facilitating the availability of Licensed Products in Developing Countries (*i.e.*, The World Bank's listing of "Low Income Economies") at locally affordable prices to improve access to such Licensed Products or Licensed Services in Developing Countries.
Additional Terms	Additional terms to be negotiated in good faith include, without limitation, termination, payment/interest, infringement obligations, confidentiality obligations, and miscellaneous legal provisions (independent contractor language, legal compliance, waivers, notices, severability, dispute resolution, etc.).

Attachment F

Initial Press Release

LIFEMAP SOLUTIONS EMERGES TO DEVELOP BIG DATA-POWERED MOBILE HEALTH PRODUCTS

LifeMap Solutions Partners with Icahn School of Medicine at Mount Sinai; Leadership Team Includes Deep Biotech and Silicon Valley Experience

ALAMEDA, CA - May XX, 2014 – LifeMap Solutions, Inc., a medical technology startup focused on creating innovative mobile health (mHealth) products and services powered by big data, today announced an initial $5 million seed round led by parent company LifeMap Sciences, Inc., a subsidiary of BioTime, Inc., with additional participation via in-kind support from its development partner, the Icahn School of Medicine at Mount Sinai.

Corey Bridges, a Silicon Valley veteran, will serve as LifeMap Solutions' Chief Executive Officer. Over the past two decades, Bridges has overseen the market introductions of several innovative technology companies, including Netflix, Zone Labs, and The Multiverse Network. A pre-IPO employee at Netscape, he launched several ground-breaking Internet products internationally, and years later launched James Cameron's CAMERON | PACE Group in China and Europe.
"In the mid-nineties, we saw the intersection of breakthrough technologies and cultural readiness that took the Internet into the mainstream and changed the world," Bridges said. "A similar intersection of technology and culture is happening now with personal health and big data, where the impact on society may be as profound and as far-reaching as the Internet has been to the world."

David Warshawsky, Ph.D., Chief Executive Officer of parent company LifeMap Sciences, and cofounder of LifeMap Solutions with Bridges, brings with him more than 20 years of experience in cutting-edge research, development, implementation, and leadership in biotech, pharmaceutical, and bioinformatics industries. "The medical technology industry is evolving at a faster pace than anyone predicted even five years ago," Warshawsky said. "These exciting times translate into massive opportunities for innovation. In the years ahead, we intend to apply our industry's best practices and LifeMap's key proprietary technology toward creating mHealth products and services that will serve a range of markets."

Strategic Partnership

LifeMap Solutions is working directly with research scientists at the Icahn School of Medicine at Mount Sinai to develop its technology. As part of the partnership, Mount Sinai's Eric Schadt, Ph.D. – founding director of the Icahn Institute for Genomics and Multiscale Biology – will lend his research experience and technical expertise to LifeMap Solutions as the newly formed company's leading science advisor. Dr. Schadt is an expert on the generation and integration of very large-scale sequence variation, molecular profiling and clinical data in disease populations for constructing molecular networks that define disease states and link molecular biology to physiology.

Core members of the LifeMap Solutions team will work closely with Mount Sinai's world-class research scientists and development personnel. Dr. Schadt said of the partnership, "We're excited to combine Mount Sinai's scientific expertise with LifeMap Solutions' ability to build mobile health application products and services to help people lead healthier lives and contribute to medical research." The details of the partnership were managed by Mount Sinai Innovation Partners, which facilitates the real-world application and commercialization of Mount Sinai discoveries and the development of research partnerships with industry.

About LifeMap Solutions, Inc.

LifeMap Solutions is developing innovative mobile health technology in partnership with the Icahn Institute for Genomics and Multiscale Biology at the Icahn School of Medicine at Mount Sinai. LifeMap Solutions was established in association with LifeMap Sciences, Inc., a BioTime, Inc. subsidiary that is developing an integrated resource for biomedical and stem cell research. LifeMap Solutions is headquartered in Alameda, California.

For more information, please visit
www.lifemap-solutions.com

About BioTime, Inc.
BioTime is a biotechnology company engaged in research and product development in the field of regenerative medicine. Its broad platform of stem cell technologies is enhanced through subsidiaries focused on specific fields of application. BioTime's focus is on pluripotent stem cell technology based on human embryonic stem ("hES") cells and induced pluripotent stem ("iPS") cells. hES and iPS cells provide a means of manufacturing every cell type in the human body and therefore show considerable promise for the development of a number of new therapeutic products. BioTime was incorporated in the state of California in 1990 and is a publicly traded company listed on the NYSE MKT stock exchange. The company is headquartered in Alameda, California, with operations in Singapore, China, and Israel.

For more information, please see www.biotimeinc.com.

FORWARD-LOOKING STATEMENTS
Statements pertaining to future financial and/or operating results, future growth in research, technology, clinical development, and potential opportunities for BioTime and its subsidiaries, along with other statements about the future expectations, beliefs, goals, plans, or prospects expressed by management constitute forward-looking statements. Any statements that are not historical fact (including, but not limited to statements that contain words such as "will," "believes," "plans," "anticipates," "expects," "estimates") should also be considered to be forward-looking statements. Forward-looking statements involve risks and uncertainties, including, without limitation, risks inherent in the development and/or commercialization of potential products, uncertainty in the results of clinical trials or regulatory approvals, need and ability to obtain future capital, and maintenance of intellectual property rights. Actual results may differ materially from the results anticipated in these forward-looking statements and as such should be evaluated together with the many uncertainties that affect the business of BioTime and its subsidiaries, particularly those mentioned in the cautionary statements found in BioTime's Securities and Exchange Commission filings. BioTime disclaims any intent or obligation to update these forward-looking statements.

LIFEMAP SOLUTIONS, INC. TO DEVELOP MOBILE HEALTH PRODUCTS WITH MOUNT SINAI'S ICAHN SCHOOL OF MEDICINE

ALAMEDA , CA – May XX, 2014 –BioTime, Inc. (NYSE MKT: BTX), announced today that its subsidiary LifeMap Sciences, Inc., a technology leader in online biomedical information, has created LifeMap Solutions, Inc., a medical technology startup focused on creating innovative mobile health (mHealth) products and services powered by biomedical and other personal big data. The initial planned product is envisioned to provide information based on interpretations of one or more components of clinical data and other information of individuals, including genetic information if provided, relating to human disease, health or wellness. LifeMap Solutions will collaborate with the Icahn School of Medicine at Mount Sinai to develop the new personal mHealth products. While detailed product plans were not revealed at this time, the company disclosed that the planned products are interactive mobile applications that will connect users with their complex personal health information and other big data. LifeMap Solutions will co-locate core members of its product development team within Mount Sinai to work alongside research and development personnel led by Dr. Eric Schadt, Director of the Icahn Institute for Genomics and Multiscale Biology at Mount Sinai. The primary focus of Mount Sinai in the product development collaboration will relate to the development of a software engine. LifeMap Solutions will be responsible for developing the entire technology platform, including server and client components. However, both parties will participate in the planning and development of all aspects of the integrated software system.

The initial financing tranche for LifeMap Solutions will be provided to LifeMap Sciences by BioTime through the purchase of additional shares of LifeMap Sciences common stock. BioTime may acquire additional LifeMap Sciences common stock for cash or in exchange for BioTime common shares when product development milestones are met and if funding is not provided through other sources. Additionally, Mount Sinai will defray a portion of the initial development cost of the project by providing services of its personnel and use of its facilities at a reduced cost.

"The creation of LifeMap Solutions represents a strategic step along BioTime's path towards extending LifeMap's leadership in online genomic and medical information," said Dr. Michael West, CEO of BioTime. "We share with Dr. Schadt a vision of new products and services designed to markedly enhance the public's access to big data and to improve quality of life."

Corey Bridges, a Silicon Valley veteran, will serve as LifeMap Solutions' Chief Executive Officer. Over the past two decades, Mr. Bridges has overseen the market introductions of several innovative technology companies, including Netflix, Inc., Zone Labs, and The Multiverse Network, Inc. A pre-IPO employee at Netscape, he launched several ground-breaking Internet products internationally, and years later launched James Cameron's CAMERON | PACE Group in China and Europe.

About BioTime, Inc.

BioTime is a biotechnology company engaged in research and product development in the field of regenerative medicine. Regenerative medicine refers to therapies based on stem cell technology that are designed to rebuild cell and tissue function lost due to degenerative disease or injury. BioTime's focus is on pluripotent stem cell technology based on human embryonic stem ("hES") cells and induced pluripotent stem ("iPS") cells. hES and iPS cells provide a means of manufacturing every cell type in the human body and therefore show considerable promise for the development of a number of new therapeutic products. BioTime's therapeutic and research products include a wide array of proprietary *PureStem*® progenitors, *HyStem*® hydrogels, culture media, and differentiation kits. BioTime is developing *Renevia*™ (a *HyStem*® product) as a biocompatible, implantable hyaluronan and collagen-based matrix for cell delivery in human clinical applications. In addition, BioTime has developed *Hextend*®, a blood plasma volume expander for use in surgery, emergency trauma treatment and other applications. *Hextend*® is manufactured and distributed in the U.S. by Hospira, Inc. and in South Korea by CJ CheilJedang Corporation under exclusive licensing agreements. BioTime is also developing stem cell and other products for research, therapeutic, and diagnostic use through its subsidiaries:

• Asterias Biotherapeutics, Inc. is a new subsidiary which has acquired the stem cell assets of Geron Corporation, including patents and other intellectual property, biological materials, reagents and equipment for the development of new therapeutic products for regenerative medicine.

• OncoCyte Corporation is developing products and technologies to diagnose and treat cancer.

• Cell Cure Neurosciences Ltd. ("Cell Cure Neurosciences") is an Israel-based biotechnology company focused on developing stem cell-based therapies for retinal and neurological disorders, including the development of retinal pigment epithelial cells for the treatment of macular degeneration, and treatments for multiple sclerosis.

• LifeMap Sciences, Inc. ("LifeMap Sciences") markets, sells and distributes *GeneCards*®, the leading human gene database, as part of an integrated database suite that also includes the *LifeMap Discovery*® database of embryonic development, stem cell research and regenerative medicine, and *MalaCards*, the human disease database.

• ES Cell International Pte Ltd., a Singapore private limited company, developed clinical and research grade hES cell lines and plans to market those cell lines and other BioTime research products in over-seas markets as part of BioTime's ESI BIO Division.

• BioTime Asia, Limited, a Hong Kong company, may offer and sell products for research use for BioTime's ESI BIO Division.

• OrthoCyte Corporation is developing therapies to treat orthopedic disorders, diseases and injuries.

• ReCyte Therapeutics, Inc. is developing therapies to treat a variety of cardiovascular and related ischemic disorders, as well as products for research using cell reprogramming technology.

Additional information about BioTime can be found on the web at *www.biotimeinc.com.*

About LifeMap Sciences, Inc.

LifeMap Sciences' (www.lifemapsc.com) core technology and business is based on its Integrated Biomedical Knowledgebase and discovery platform for biomedical research, which currently includes *GeneCards*®, the leading human gene database; *LifeMap Discovery*®, the database of embryonic development, stem cell research and regenerative medicine; and *MalaCards*, the human disease database. LifeMap's products are used in many institutions including academia, research hospitals, patent offices, and leading biotechnology and pharmaceutical companies. In addition to its currently marketed products, LifeMap is pursuing several new internet and informatics products with substantial rapid revenue growth potential, leveraging its existing products and their large user base.

About LifeMap Solutions, Inc.

LifeMap Solutions is developing innovative mobile health technology in partnership with the Icahn Institute for Genomics and Multiscale Biology, which is located within the Icahn School of Medicine at Mount Sinai. LifeMap Solutions is a subsidiary of LifeMap Sciences, Inc., a subsidiary of BioTime, Inc. that is developing an integrated resource for biomedical and stem cell research. LifeMap Solutions is headquartered in Alameda, California. For more information, please visit www.lifemap-solutions.com.

FORWARD-LOOKING STATEMENTS
Statements pertaining to future financial and/or operating results, future growth in research, technology, clinical development, and potential opportunities for BioTime and its subsidiaries, along with other statements about the future expectations, beliefs, goals, plans, or prospects expressed by management constitute forward-looking statements. Any statements that are not historical fact (including, but not limited to statements that contain words such as “will,” “believes,” “plans,” “anticipates,” “expects,” “estimates”) should also be considered to be forward-looking statements. Forward-looking statements involve risks and uncertainties, including, without limitation, risks inherent in the development and/or commercialization of potential products, uncertainty in the results of clinical trials or regulatory approvals, need and ability to obtain future capital, and maintenance of intellectual property rights. Actual results may differ materially from the results anticipated in these forward-looking statements and as such should be evaluated together with the many uncertainties that affect the business of BioTime and its subsidiaries, particularly those mentioned in the cautionary statements found in BioTime's Securities and Exchange Commission filings. BioTime disclaims any intent or obligation to update these forward-looking statements.

To receive ongoing BioTime corporate communications, please click on the following link to join our email alert list: http://news.biotimeinc.com

Contact:
BioTime, Inc.
Judith Segall
510-521-3390, ext 301
jsegall@biotimemail.com

LifeMap Sciences, Inc.
Kenneth Elsner, 781-826-7719
CFO and General Counsel
ke@lifemapsc.com

LifeMap Solutions, Inc.
TriplePoint Public Relations
lifemap@triplepointpr.com

Exhibit 10.2

STOCK PURCHASE AGREEMENT

This Stock Purchase Agreement ("Agreement") is entered into as of May 5, 2014 by BioTime, Inc. ("BioTime") and LifeMap Sciences, Inc., a California corporation (the "Company).

1. Purchase and Sale of Shares.

(a) BioTime hereby agrees to purchase, and the Company agrees to issue and sell to BioTime, Two Million Five Hundred Thousand (2,500,000) shares of Company common stock, no par value ("Shares"), at the price of $2.00 per Share (the "Purchase Price").

(b) The Shares will be issued and sold in four tranches, subject to the satisfaction of the applicable Funding Conditions, on the following dates (each a "Funding Date"):

(i) First tranche: Six Hundred and Twenty Five Thousand (625,000) shares five (5) business days after the Company delivers to BioTime a copy of that certain Co-Development and Option Agreement by and among the Company, LifeMap Solutions, Inc. ("LifeMap Solutions"), and the Icahn School of Medicine at Mt. Sinai ("Mt. Sinai") in the form attached hereto as Exhibit A (the "Navigator Agreement") fully executed by all of the parties to the Navigator Agreement; and

(ii) Second tranche: Six Hundred and Twenty Five Thousand (625,000) shares sixty (60) days after the execution of the Navigator Agreement;

(iii) Third tranche: Seven Hundred and Fifty Thousand (750,000) shares one hundred and twenty (120) days after the execution of the Navigator Agreement;

(iv) Fourth tranche: Five Hundred Thousand (500,000) shares two hundred and ten (210) days after the execution of the Navigator Agreement.

(c) The Funding Conditions to be met an applicable Funding Date are: (i) the Navigator Agreement shall be in full force and effect, without modification or amendment except as may have been approved by BioTime; (ii) each of Mt. Sinai, the Company, and LifeMap Solutions shall have performed all of their respective obligations and agreements under the Navigator Agreement to be performed on or before the Funding Date; (iii) no party to the Navigator Agreement shall have given the other party any notice of termination of the Navigator Agreement or asserting a breach or default by the other party under the Navigator Agreement; and (vii) on each Funding Date the Company shall have received a certificate signed by the President of the Company certifying to BioTime that each of the applicable Funding Conditions has been met.

(d) Payment of the Purchase Price of the Shares shall be in cash by wire transfer to a bank account of the Company.

(e) Payment of the Purchase Price for the Shares shall be made against delivery to BioTime of stock certificates evidencing the Shares sold, duly executed by the Company. All Shares shall be, when issued and sold pursuant to this Agreement, duly authorized, legally and validly issued, fully paid, and non-assessable.

2. Use of Proceeds and Other Covenants.

(a) The Company shall use the Purchase Price solely for investment in LifeMap Solutions for the purpose of performing LifeMap Solutions' obligations under the Navigator Agreement and the License Agreement and for commercializing the LifeMap Solutions product.

(b) The Company shall not amend, supplement, or modify the Navigator Agreement or the License Agreement without the prior written consent of BioTime.

3. Investment Representations. BioTime represents and warrants to the Company that:

(a) BioTime understands that the Shares are being offered and sold without registration under the Securities Act of 1933, as amended (the "Securities Act") or qualification under the California Corporate Securities Law of 1968, or under the laws of any other states, in reliance upon the exemptions from such registration and qualification requirements for non-public offerings.

(b) BioTime understands that the Shares may not be offered, sold, or transferred in any manner unless subsequently registered under the Securities Act, or unless there is an exemption from such registration available for such offer, sale or transfer.

(c) BioTime is acquiring the Shares solely for BioTime's own account and for investment purposes, and not with a view to, or for sale in connection with, any distribution of the Shares other than pursuant to an effective registration statement under the Securities Act or unless there is an exemption from such registration available for such offer, sale or transfer, such as SEC Rule 144.

(d) BioTime is an "accredited investor," as such term is defined in Regulation D promulgated under the Securities Act.

4. BioTime's Option. The Company hereby grants BioTime the option to purchase up to an additional Nine Million Five Hundred Thousand (9,500,000) Shares at a price of $2.00 per Share under the terms shown on Exhibit B (the "Option"). BioTime may exercise the Option at any time by giving the Company written notice of exercise, and upon exercise of the Option, the terms shown on Exhibit B shall be deemed incorporated into and a part of this Agreement.

(a) The Company shall provide BioTime with a (i) copy of the prototype of the LifeMap Solutions product (and each revision of the prototype, if any) at the same time that the prototype (and each revision of the prototype, if any) is provided to Mt Sinai, (ii) a copy of all written comments and communications from Mt Sinai with respect to the prototype (and each revision of the prototype, if any) within two (2) business days after receipt by the Company, and (iii) a copy of any notice of acceptance or approval of the prototype by Mt Sinai not later than one business day after receipt by the Company.

(b) The Company shall provide BioTime with a (i) copy of the beta version of the LifeMap Solutions product (and each revision of the beta version, if any) at the same time that the beta version (and each revision of the beta version beta version, if any) is provided to Mt Sinai, (ii) a copy of all written comments and communications from Mt Sinai with respect to the beta version (and each revision of the beta version, if any) within two (2) business days after receipt by the Company, and (iii) a copy of any notice of acceptance or approval of the beta version by Mt Sinai not later than one business day after receipt by the Company.

(c) The Company or LifeMap Solutions shall provide such assistance as BioTime may request for the evaluation of the prototype and beta version of the LifeMap Solutions product by BioTime and its consultants.

5. Termination.

(a) BioTime may terminate this Agreement by notice to the Company at any time upon the occurrence of any of the following events:

(i) The termination of the Navigator Agreement, or any party to the Navigator Agreement giving any notice of termination of the Navigator Agreement to any other party to the Navigator Agreement, prior to the first anniversary of the Navigator Agreement or prior to the execution and delivery of the License Agreement by Mt Sinai and LifeMap Solutions;

(ii) A breach or default by any party to the Navigator Agreement in the performance of its obligations under the Navigator Agreement prior to the execution and delivery of the License Agreement by Mt Sinai and LifeMap Solutions, or which would entitle Mt Sinai to terminate the License Agreement;

(iii) The termination of the License Agreement, or any party to the License Agreement giving any notice of termination of the License Agreement to any other party to the License Agreement;

(iv) A breach or default by any party to the License Agreement in the performance of its obligations under the License Agreement;

(v) The failure of the Funding Conditions to be met on the Funding Date for the sale of Shares;

(vi) A receiver is appointed for the Company or LifeMap Solutions or any of the property of the Company or LifeMap Solutions, or the Company or LifeMap Solutions makes an assignment for the benefit of its creditors, or any proceeding is commenced by, for, or against the Company or LifeMap Solutions under the United States Bankruptcy Code or any other bankruptcy, insolvency or debtor's relief law, or the Company or LifeMap Solutions is liquidated or dissolved (otherwise than through a merger with or into another company); or

(vii) The Company fails to deliver any Shares when and as required by this Agreement and such failure continues for a period of thirty (30) days after notice of non-delivery from BioTime.

(b) The Company may terminate this this Agreement by notice to BioTime at any time upon the occurrence of any of the following events:

(i) BioTime fails to pay the Purchase Price for any Shares when and as required by this Agreement, and such failure continues for a period of thirty days after notice of non-payment from the Company;

(ii) The termination of the Navigator Agreement prior to the execution and delivery of the License Agreement by Mt Sinai and LifeMap Solutions;

(iii) The termination of the License Agreement; or

(iv) A receiver is appointed for BioTime or any of its property, or BioTime makes an assignment for the benefit of its creditors, or any proceeding is commenced by, for, or against BioTime under the United States Bankruptcy Code or any other bankruptcy, insolvency or debtor's relief law, or BioTime is liquidated or dissolved (otherwise than through a merger with or into another company).

6. Miscellaneous.

(a) This Agreement shall be governed by, interpreted, construed and enforced in accordance with the laws of the State of California, as such laws are applied to contracts by and among residents of California, and which are to be performed wholly within California.

(b) The representations and warranties set forth herein shall survive the sale of Shares to BioTime.

(c) Neither this Agreement nor any provisions hereof shall be modified, discharged or terminated except by an instrument in writing signed by the party against whom any waiver, change, discharge or termination is sought.

(d) Any notice, demand or other communication that any party hereto may be required, or may elect, to give shall be sufficiently given if (i) deposited, postage prepaid, in the United States mail addressed to such address as may be specified under this Agreement, (ii) delivered personally at such address, (iii) delivered to such address by next business day delivery service, or (iv) delivered by electronic mail (email) to such electronic mail address as may be specified under this Agreement. The address for notice to the Company is: LifeMap Sciences, Inc. _____; Attention: Kenneth Elsner, Chief Financial Officer; email: ke@lifemapsc.com. The address for notice of BioTime is 1301 Harbor Bay Parkway, Suite 100, Alameda, California 94502; attention Robert W. Peabody, Senior Vice President; Chief Operating Officer, and Chief Financial Officer; email: rpeabody@biotimemail.com. Either party may change its address for notice by giving the other party notice of a new address in the manner provided in this Agreement. Any notice sent by mail shall be deemed given three days after being deposited in the United States mail, postage paid, and addressed as provided in this Agreement.

(e) This Agreement may be executed through the use of separate signature pages or in any number of counterparts, and each of such counterparts shall, for all purposes, constitute one agreement binding on all the parties. The parties may deliver executed signature pages or counterparts of this Agreement by facsimile or pdf format and each such signature shall be deemed an original.

(f) This Agreement shall be binding upon and inure to the benefit of the parties and their heirs, executors, administrators, successors, legal representatives and assigns.

(g) This instrument contains the entire agreement of the parties, and there are no representations, covenants or other agreements except for those stated or referred to herein.

Signatures on Following Page

WITNESS WHEREOF, the undersigned has entered into this Agreement as of the date first above-written.

COMPANY:

LifeMap Sciences, Inc.

By: s/David Warshawsky
David Warshawsky, President

BIOTIME:

BioTime, Inc.

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

EXHIBIT A

Navigator Agreement

CO-DEVELOPMENT AND OPTION AGREEMENT

This Co-development and Option Agreement ("**Agreement**") is made by and between the **Icahn School of Medicine at Mount Sinai**, a nonprofit education corporation organized and existing under the laws of the State of New York, having an office at One Gustave L. Levy Place, New York, New York 10029 ("**Mount Sinai**"), and **LifeMap Solutions, Inc.**, a corporation organized and existing under the laws of Delaware ("**LifeMap**"), having a place of business at 1301 Bay Harbor Parkway, Suite 100, Alameda, CA 94502. Mount Sinai and LifeMap are each referred to herein as a "**Party**" and collectively, as the "**Parties**."

This Agreement is effective as of May 1, 2014 ("**Effective Date**").

RECITALS

WHEREAS, LifeMap Sciences, Inc. ("LifeMap Sciences"), the parent company of LifeMap, is the exclusive, perpetual, worldwide commercial licensee of the online databases GeneCards® and MalaCards, and is the owner of LifeMap Discovery™, which are knowledge databases of genes, diseases and cell types, respectively, and has expertise relating to various other data mining technologies; and

WHEREAS, LifeMap is interested in commercializing Internet and mobile Consumer (as hereinafter defined) products for improving lifestyle and healthcare decisions and outcomes based on interpretation of wide scale genetic information, clinical data and other information of product end users ; and

WHEREAS, Mount Sinai's Institute for Genomics and Multiscale Biology is a leader in the field of generating and integrating genomic, transcriptomic, phenotypic and clinical data to provide novel disease models with diagnostic and prognostic insights; and

WHEREAS, the Parties desire to work together to jointly develop the LifeMap Navigator (as hereinafter defined) and wish to integrate Mount Sinai's expertise relating to complex data analysis and LifeMap's expertise relating to development of consumer-friendly mobile user interfaces.

NOW, THEREFORE, in consideration of the mutual benefits to be derived hereunder, and intending to be legally bound, the Parties agree as follows:

1. DEFINITIONS

1.1 ***Affiliate*** means a legal entity that is controlling, controlled by or under common control with a Party. For purposes of this Agreement, the word "control" means (x) the direct or indirect ownership of more than fifty percent (50%) of the outstanding voting securities of a legal entity, (y) the right to receive fifty percent (50%) or more of the profits or earnings of a legal entity, or (z) the right to determine the policy decisions of, or to direct or cause the direction of the management of, a legal entity.

1.2 ***Background Intellectual Property*** means Intellectual Property Rights existing prior to the Effective Date, including, but not limited to, such rights with respect to designs, prototypes, processes, drawings, descriptions, software, data and inventions, whether patentable or not, any process, method, composition of matter, article of manufacture, discovery or finding and know-how that are controlled by, or licensed by, a Party and/or its Affiliates, and available for licensing (or sublicensing, as applicable) and reasonably necessary to implement the Development Activities as mutually agreed by the Parties, together with all patents and other Intellectual Property Rights therein. Mount Sinai Background Intellectual Property shall be limited to those Intellectual Property Rights existing prior to the Effective Date that were developed by, or provided by or on behalf of, one or more of the following individuals: the Principal Investigator, including any successor(s) thereto, and/or those working under his direction on the Development Activities. Should LifeMap reasonably require access to Mount Sinai Background Intellectual Property previously developed by, or provided by or on behalf of, individuals *not* working on the Development Activities, the Parties agree to discuss in good faith granting LifeMap access to such Mount Sinai Background Intellectual Property, but nothing contained herein obligates Mount Sinai to grant LifeMap any rights to said Mount Sinai Background Intellectual Property. Mount Sinai's Background Intellectual Property is referred to herein as "**Mount Sinai Background Intellectual Property**".

1.3 ***Code*** means the software code written by Mount Sinai under the Development Plan as used to execute the LMN Engine, including the object code and the Source Code thereof.

1.4 ***Committed Participant*** means a Mount Sinai employee (i) who is participating in the Development Activities under the direction of the Principal Investigator; and (ii) whose percent effort committed to the Development Activity is equal to or exceeds ten percent (10%) of their position effort as outlined in **Attachment B** and made a part of this Agreement.

1.5 ***Consumer*** means all end users, including individual consumers, medical professionals, and organizations that service same, that purchase and/or license, or have purchased and/or licensed on their behalf, a product for personal and/or family use or to assist or enable the use of the product by others. For the avoidance of doubt, use by medical professionals includes direct or indirect assistance or work for or on behalf of patients.

1.6 ***Developed Intellectual Property*** means all Intellectual Property Rights that are first conceived and reduced to practice in the conduct of the Development Activities hereunder, including Documentation, all such technical information, inventions, developments, discoveries, software, methods, techniques, formulae, data, and processes, whether or not patentable or copyrightable.

1.7 ***Development Activities*** means the collaborative research and co-development program described in **Attachment A** to this Agreement, which is hereby incorporated into and made a part of this Agreement.

1.8 ***Development Plan*** means the development plan to be mutually and reasonably agreed to and signed by the Parties with respect to the Development Activities.

1.9 ***Documentation*** means the user, operations and training manuals with respect to any software or other products or processes used in connection with the Development Activities, and, to the extent maintained by Mount Sinai, object libraries, design documentation, statements of principles of operations, schematics, any developer's or administrator's guides, test data, test protocols, and, if any of the components of the software are encrypted, the relevant decryption tools and keys for the Source Code, and, whether formal or informal, specification documents, emails, product design discussions, bug reports, and usability recommendations.

1.10 ***Effective Date*** means the first date written above.

1.11 ***EMR Data*** means data from Mount Sinai's electronic medical records.

1.12 ***Field of Use*** means Consumer applications (including, for clarity, Internet, Web-based, mobile user and Mobile User Applications, databases and software products), based on interpretation and/or presentation of Wide Scale Health Related Information.

1.13 ***Improvements*** means any enhancement, modification, improvement, bug fix, error correction (including corrections of defects, malfunctions, failures, nonconformities and other deficiencies), update, modification, upgrade or discovery created, identified or discovered by or on behalf of either Party with respect to the Code in the Field of Use. For Mount Sinai, Improvements shall be limited to those made by the Principal Investigator and/or those working under him on the Development Activities and shall be limited to those Improvements made within one (1) year of completion of the applicable Development Plan under which such Code was originally created.

1.14 ***Intellectual Property Rights*** means (a) all rights under all copyright laws of the United States and all other countries for the full terms thereof (of all rights accruing by virtue of copyright treaties and conventions), including, all renewals, extensions, reversions or restorations of copyrights now or hereafter provided by law and all rights to make applications for and obtain copyright registrations therefor and recordations thereof, and including without limitation all copyright rights in all software, documentation, user and application interfaces including without limitation, to the extent copyrightable, the look and feel and the structure, sequence and organization thereof; (b) all rights to and under new and useful inventions, discoveries, designs, technology and art and all other patentable subject matter, including all improvements thereof and all know-how related thereto, and all applications for and the right to make applications for Letters Patent in the United States and all other countries, all Letters Patent that issue therefrom and all reissues, extensions, renewals, divisions and continuations (including continuations-in-part claiming the same priority date) thereof, for the full term thereof; (c) all trademarks and service marks and the good will associated therewith and Internet domain names, throughout the world; (d) all trade secrets, confidential business information, evaluations and reports; (e) all know-how under the laws of any jurisdiction and all know-how not otherwise included in the foregoing; and (f) all other intellectual and industrial property and proprietary rights throughout the world not otherwise included in the foregoing, including without limitation all techniques, methodologies and concepts and trade dress.

1.15 ***Joint Results*** means Results generated with the material inventive input of both Mount Sinai and LifeMap.

1.16 ***LifeMap Navigator*** means any Internet, Web-based, mobile user and/or Consumer product solutions for providing information that may potentially aid in improving lifestyle and healthcare decisions and outcomes based on interpretation of Wide Scale Health Related Information and that are powered by the LMN Engine that is being jointly developed as part of the Development Activities hereunder by the Parties.

1.17 ***LMN Components*** means (i) algorithm(s) that incorporate, or are designed to incorporate, input from Wide Scale Health Related Information, including from end users such as LifeMap Navigator end users and/or Results (in part or in whole); and (ii) database(s) that incorporate, or are designed to incorporate, input data from Wide Scale Health Related Information, including from end users such as LifeMap Navigator end users, and/or Results. For clarification purposes, LMN Components may contain User Data. The Parties acknowledge and agree that if the LMN Components contains User Data, Mount Sinai shall have no rights in or to such User Data and LifeMap is free to use such User Data for any purpose it sees fit.

1.18 ***LMN Engine*** means software code, including all Code and Source Code, which powers the relative risk assessment and health advice functions of the LifeMap Navigator by running and/or executing, and/or utilizing the LMN Components.

The LMN Engine may also incorporate input data from additional sources such as publicly available databases or EMR Data as mutually and reasonably agreed by the Parties. The Parties acknowledge and agree that if the LMN Engine contains EMR Data, LifeMap shall have no exclusive rights in or to such EMR Data and Mount Sinai is free to use such EMR Data for any purpose it sees fit.

1.19 ***Logic*** means Mount Sinai know-how relating to development of software, algorithms, and databases capable of analyzing complex data sets and generating predictive models.

1.20 ***Mobile User Application*** means a software application designed to run on smartphones, tablet computers and/or other mobile devices.

1.21 ***Principal Investigator*** means Dr. Eric Schadt, or his designee as reasonably acceptable to LifeMap, who has agreed to serve as Principal Investigator for the Development Activities and will be responsible for the administration and supervision of the Development Activities.

1.22 ***Results*** means all data and results generated in performance of the Development Activities hereunder, including all reports and records relating thereto and the LMN Engine. For clarity, Logic and LMN Components are expressly excluded from Results.

1.23 ***Source Code*** means the human readable form of code for any software licensed to LifeMap hereunder, and any Improvements thereto, all of which (a) will be narrated with build notes sufficient to enable a reasonably skilled programmer to interpret, load, use, support and maintain the code and to perform or cause to be performed such actions as are licensed hereunder, and (b) can be compiled by a computer or assembler for execution.

1.24 ***Steering Committee*** means the joint committee formed by the Parties in accordance with **Section 2.1** herein to coordinate the collaborative research and joint development activities under this Agreement.

1.25 ***Use*** means use, make, sell, install, operate, develop, compile, run, reproduce, deploy, distribute, transmit, display, perform, create derivative works of, make available on servers, provide access to, integrate with software, reverse engineer, make interoperable and perform tasks as necessary to utilize any item, creation, object, program, idea, concept, data, information, knowledge or any other tangible or intangible property and otherwise exploit same in any manner whatsoever.

1.26 ***User Data*** means any and all LifeMap Navigator end-user personal data inputted into the LifeMap Navigator.

1.27 ***Wide Scale Health Related Information*** means a combination of genetic information and one (or more components of) clinical data and other information of individuals relating to human disease, health and/or wellness, in which the genetic information component involves [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]

2. DEVELOPMENT ACTIVITIES

2.1 The Steering Committee shall be comprised of [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]. The Steering Committee shall meet at least bi-monthly at mutually agreeable dates and places, including meeting by teleconference or other electronic means if agreed upon by all Steering Committee members. The functions of the Steering Committee shall be to oversee the collaborative research and joint development activities, including monitoring progress under the Development Activities, and engaging in exchanges of information and joint planning activities. The Steering Committee shall also appoint task forces or subcommittees, to the extent it may find it convenient or appropriate, with the objective of keeping each Party aware of relevant issues and decisions relating to the collaborative research and joint development under the Development Activities. The Steering Committee may propose from time to time, during the term of this Agreement, to amend or augment the Development Activities hereunder including the addition of statements of work to update or improve any Developed Intellectual Property hereunder. Each such amendment or additional statement of work shall be developed and approved by the Steering Committee, and, to the extent mutually agreeable to the Parties, shall be executed by the Parties and become a part of this Agreement as an exhibit attached hereto. Notwithstanding the foregoing, nothing contained herein shall obligate either Party to undertake additional or expanded activities. Notwithstanding the foregoing provisions of this **Section 2.1**, none of the activities of the Steering Committee shall give it authority to direct the Development Activities or otherwise to infringe upon the appropriate authority of the Principal Investigator in undertaking the Development Activities.

2.2 Mount Sinai and LifeMap will commence the Development Activities after the Effective Date of this Agreement. The Parties will use reasonable efforts to undertake the Development Activities substantially in accordance with the terms and conditions of this Agreement. Notwithstanding the foregoing, LifeMap acknowledges that Mount Sinai will have the freedom to conduct the Development Activities in a manner consistent with Mount Sinai's educational and research missions.

2.3 If the services of the Principal Investigator become unavailable to Mount Sinai for any reason, Mount Sinai shall notify LifeMap and shall undertake reasonable efforts to designate [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] or another member of its faculty who is acceptable to both Parties to serve as the Principal Investigator of the Development Activities. If a substitute Principal Investigator has not been designated within ninety (90) days after the original Principal Investigator ceases his or her services under this Agreement, LifeMap may request an additional ninety (90) days, which extension must be granted, to identify an acceptable replacement Mount Sinai faculty member to serve as Principal Investigator and which replacement shall not be unreasonably objected to by Mount Sinai. During the extended search period, Mount Sinai may suspend its activities under this Agreement until a suitable replacement Principal Investigator has been identified and has agreed to take on the role of Principal Investigator, and Mount Sinai has agreed in writing to the new Principal Investigator. The Parties agree nothing contained herein shall obligate Mount Sinai to cause any Mount Sinai faculty member to act as Principal Investigator against such faculty member's wishes. If a mutually acceptable replacement cannot be found within the foregoing time periods, only then may either Party terminate this Agreement upon written notice thereof to the other Party, subject to the provisions of **Article 11**. Termination of this Agreement in such event shall not be considered a termination for breach.

In order to foster the collaborative nature of the Development Activities, the Parties acknowledge that LifeMap will request that Mount Sinai host, during the term of this Agreement, LifeMap employees or contractors in Mount Sinai facilities solely for the purpose of conducting the Development Activities ("**LifeMap Visiting Scientists**"). The Parties agree that hosting of any LifeMap Visiting Scientists in Mount Sinai facilities shall only be by the prior written agreement of the Parties and shall be limited to no more than [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] LifeMap Visiting Scientists in cumulative total during the term of this Agreement. The Parties further agree that all such LifeMap Visiting Scientists shall be subject to Mount Sinai's policies regarding facility entrance and usage and that all said LifeMap Visiting Scientists shall be required to sign the Visiting Scientist Agreement, attached hereto as **Attachment C**, prior to being hosted at Mount Sinai. Notwithstanding the foregoing, nothing contained herein obligates Mount Sinai to host, or to continue to host, any LifeMap Visiting Scientists in its facilities. Procedures and details regarding the day-to-day collaborative environment and hosting shall be jointly created by Mount Sinai and LifeMap to the extent such procedures and details do not violate any Mount Sinai policies.

2.4 The Parties acknowledge the evolving regulatory landscape surrounding direct-to-consumer patient genetic testing and that certain permit(s) and/or approval(s) may be necessary for such testing. By way of non-limiting example, New York law, including N.Y. Pub. Health Law § 574, Article 5, Title V, prohibits direct-to-consumer genetic testing in New York State and testing of samples obtained in New York State. As such, nothing contained herein, including the work outlined in the Development Activities, obligates Mount Sinai to sequence direct consumer patient biological samples in its New York State laboratory facilities or otherwise provide genetic testing for such direct-to-consumer patient samples in contravention of any applicable law. Should LifeMap desire Mount Sinai to sequence patient biological samples or otherwise provide genetic testing, the Parties will discuss, in good faith, potential avenues for Mount Sinai's participation in such activities that comply with the letter and spirit of applicable law, should Mount Sinai be agreeable to such participation, which agreement shall be at its sole discretion.

2.5 Except to the extent reasonably agreed to by LifeMap, Mount Sinai shall use good faith efforts to avoid utilizing in the LMN Engine (i) any open source, free, community, or similar software, including any libraries or software licensed under the General Public License or any other license agreement or arrangement obliging a Party to make Source Code or object code available to third parties (collectively, "**Open Source Code**") or (ii) any code that requires the use of any Open Source Code in order to function in its intended fashion. Should Mount Sinai reasonably believe it needs to utilize such Open Source Code in the LMN Engine, it shall discuss in good faith with LifeMap such need and follow the processes specified by the LifeMap Chief Technology Officer, or other LifeMap officer, as appointed by the LifeMap Chief Technology Officer, prior to incorporating any such Open Source Code in the LMN Engine.

3. TERM OF AGREEMENT

3.1 The initial term of this Agreement will begin on the Effective Date of this Agreement and will end three (3) years thereafter, unless terminated sooner pursuant to **Article 11** hereof. This Agreement may be extended or renewed only by mutual written agreement executed by duly authorized representatives of the Parties.

4. REIMBURSEMENT OF COSTS; PAYMENT

4.1 LifeMap will provide funding to Mount Sinai to cover costs incurred by Mount Sinai in the conduct of the Development Activities in an initial amount totaling [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] Dollars as specified in the budget attached as **Attachment B** hereto, which is fully incorporated herein. The budget in **Attachment B** provides for an overhead charge (indirect cost rate) by Mount Sinai of [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] percent ([*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]%) of the direct personnel salaries (excluding, for the avoidance of doubt, payroll taxes and benefits) of the Mount Sinai personnel and materials to be utilized for the Development Activities. The Parties acknowledge that Mount Sinai agrees to waive the first [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] Dollars (US$[*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]) of such overhead charges ("**Waived Funds**"). Upon Mount Sinai's request, LifeMap hereby agrees to provide written documentation to Mount Sinai that such Waived Funds are invested into LifeMap for the further development and commercialization of the LifeMap Navigator. For clarity, if funding has been provided to Mount Sinai in the amount of [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] Dollars (US$[*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]) and such amount has been paid in personnel and materials costs, the overhead charge would be [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] percent ([*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]%) of [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] Dollars (US$[*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]) or [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] Dollars (US$[*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]), which would be the maximum amount of the Waived Funds. In consideration for Mount Sinai waiving its overhead charge (indirect cost rate) and enabling investment of the Waived Funds into LifeMap, should LifeMap exercise its option and the Parties enter into a definitive license agreement in accordance with **Article** 7 herein, LifeMap will pay to Mount Sinai a change of control fee as provided for in the definitive license agreement. The Parties further acknowledge that the Mount Sinai prevailing overhead charge (indirect cost rate) will be applied to any funds provided to Mount Sinai in excess of [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]Dollars (US$[*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]), to the extent used for direct personnel salaries (excluding, for the avoidance of doubt, payroll taxes and benefits) of the Mount Sinai personnel and materials utilized to support the Development Activities. LifeMap acknowledges that this total amount is a good faith estimate only and not a guarantee of the cost to conduct the Development Activities. If at any time Mount Sinai determines that it will require additional funds for the Development Activities, it will notify LifeMap and provide an estimate of the additional amount necessary to continue the Development Activities. LifeMap will not be liable for any costs in excess of the amounts set forth in **Attachment B** unless it has agreed in writing to provide additional funds.

4.2 Mount Sinai shall provide invoices to LifeMap at the beginning of each calendar quarter in accordance with the payment schedule set forth in **Attachment B**. Any amounts paid by LifeMap and not spent in such calendar quarter shall be credited on the invoice for the next calendar quarter. All payments are due within [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] days of receipt of an invoice and are to be made to Mount Sinai by wire transfer to:

Bank Name[*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]
Account [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission**]**
Account Name: [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]
ABA # (routing): [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]

IBAN #: [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]
Bank Contact Person [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]
Telephone: [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]
Fax: [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]
Address: [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]
Fund #: [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]

5. RECORDS AND REPORTS

5.1 Results that are solely developed by a Party shall be owned by the Party that generates such Results; Joint Results shall be jointly owned by the Parties.

5.2 Each Party will maintain records of the Results and will provide each other with reports of the progress and Results in accordance with **Attachment A**. Each Party will maintain the other Party's Results as confidential information in accordance with **Article** 8.

5.3 Each Party hereby grants to the other Party a perpetual, royalty-free, irrevocable, fully paid-up, non-exclusive, non-sublicensable (other than to Affiliates) license to the granting Party's rights in the Results, solely for non-commercial internal research purposes. In addition, Mount Sinai grants to, and shall cause its Affiliates to grant to, LifeMap an exclusive option to such Results as are owned by Mount Sinai (and/or its Affiliates) or jointly owned by Mount Sinai and LifeMap as set forth in **Article** 7.

5.4 The Results, and or as well as full copies of the Code and Documentation and other related materials developed by Mount Sinai and reasonably requested by LifeMap from time to time shall be delivered by Mount Sinai (but Mount Sinai shall not be required to deliver such more frequently than [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] in the case of Code, including Source Code) to LifeMap (and such deliverables shall be held strictly confidential by LifeMap in accordance with **Article** 8); provided that, if there are only Improvements and if reasonable, only the Improvements need be delivered. Mount Sinai will utilize a shared code repository such as Git or Subversion and use reasonable efforts to have said repository reflect the current state of Code development such that Code contained in the repository is maintained complete and can be compiled and executed. Upon the request of LifeMap, at the end of every quarter, and within [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] days of termination of this Agreement, Mount Sinai and LifeMap shall have a comprehensive meeting that shall include the Principal Investigator and to the extent possible all Committed Participants to ensure the complete transfer of the Results, including as specified in this **Section 5.4**.

6. INTELLECTUAL PROPERTY

6.1 Each Party grants the other Party a world-wide, royalty-free, non-exclusive, non-sublicenseable (except to Affiliates) license, during the term of this Agreement, to use such Party's Background Intellectual Property, as listed in **Attachment D**, as may be amended by the Parties from time to time, solely to the extent necessary to undertake the Development Activities.

6.2 For all Developed Intellectual Property, inventorship shall be determined in accordance with the U.S. patent laws and ownership shall follow inventorship as follows: [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]. For clarity, the Principal Investigator or any substitute for him in accordance with **Section 2.3** is and shall be a Mount Sinai employee subject to Mount Sinai policy including with respect to obligations to assign intellectual property to Mount Sinai.

6.3 Each Party will promptly provide the other Party a complete written disclosure of any Developed Intellectual Property, which disclosure shall be subject to the confidentiality obligations of **Article** 8. For clarity, only a summary of any Source Code shall be required to be delivered, but the Code shall be delivered in accordance with the provisions of **Section 5.4**.

6.4 Each Party shall be fully responsible for the filing, prosecution, maintenance and enforcement of patent rights claiming its solely owned Intellectual Property Rights. For any Joint Intellectual Property, the Parties shall discuss and agree on the responsibility and control with respect to the filing, prosecution, maintenance and enforcement of patent rights claiming any Joint Intellectual Property but, notwithstanding the foregoing, LifeMap will reimburse Mount Sinai upon receipt of invoices for all reasonable, documented expenses incurred in connection with the filing and prosecution of the patent applications and maintenance of the patents covering Mount Sinai Intellectual Property and/or Mount Sinai's rights in Joint Intellectual Property that LifeMap has an exclusive option and/or license to. Should LifeMap decline to reimburse Mount Sinai for such documented expenses, the option and/or license granted under **Article** 7 shall exclude such Mount Sinai Intellectual Property and/or Mount Sinai's rights in such Joint Intellectual Property that LifeMap declined to reimburse. Mount Sinai will retain all right, title and interest in and to the Mount Sinai Intellectual Property and any patents, copyrights and other intellectual property protections related thereto. LifeMap will retain all right, title and interest in and to the LifeMap Intellectual Property and all other LifeMap Intellectual Property Rights, including, for the avoidance of doubt, the User Data, and any patents, copyrights and other intellectual property protections therein.

7. OPTION

7.1 In consideration of LifeMap's funding of the Development Activities and payment for intellectual property expenses as provided for in **Article** 6, Mount Sinai grants LifeMap an option (such option to be exclusive with regard to that which is to be exclusively licensed; such option to be non-exclusive with regard to that which is to be non-exclusively licensed) to acquire an exclusive or non-exclusive (solely in accordance with **Attachment E,** including any limitations on any exclusivity described therein) royalty-bearing license to Use and utilize (i) Mount Sinai Intellectual Property; (ii) Mount Sinai's Results; (iii) Mount Sinai's rights in Joint Intellectual Property and Joint Results; (iv) Mount Sinai's rights in the LMN Engine (*excluding* any exclusive rights of Mount Sinai as specified herein, including **Appendix E**, to EMR Data and/or LMN Components contained in the LMN Engine), to the extent not owned by LifeMap; (v) Mount Sinai's rights in the Code; (vi) Logic; and (vii) Mount Sinai Background Intellectual Property, solely to the extent such Mount Sinai Background Intellectual Property is, (a) available for licensing in the Field of Use, and (b) reasonably required to Use and/or utilize Mount Sinai Intellectual Property, including such Intellectual Property Rights expressly licensed, or to be licensed, hereunder, substantially on the terms attached hereto as **Attachment E** and incorporated herein, and with such other terms to be negotiated in good faith by LifeMap and Mount Sinai. The Parties agree that they will use good faith efforts to begin negotiations on a license, as discussed above, within [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] days of the Effective Date, and shall use reasonable efforts to agree on a form of license, based substantially on the terms attached hereto as **Attachment E**, within [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] days of the Effective Date.

7.2 If LifeMap and Mount Sinai fail to execute a license agreement within [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] months after disclosure of the Mount Sinai Intellectual Property and Mount Sinai Results to LifeMap, or such additional time period as the Parties shall reasonably agree in writing, either Party may initiate a mediation process through which the Parties shall endeavor to arrive at a mutually agreeable license agreement in accordance with the provisions set forth in **Attachment E**, with the assistance of a sole mediator to be agreed upon by the Parties, or if the Parties are unable to agree on a mediator, one shall be appointed by the American Arbitration Association, or other similar association mutually agreed upon. The Parties further agree that if such a license agreement cannot be agreed to through such mediation within [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] days following initiation of the mediation process, either Party may initiate binding arbitration to resolve any dispute with regard to the form of license agreement. Such arbitration shall be conducted in New York, New York and will be heard by a single arbitrator in accordance with the Commercial Arbitration Rules of the American Arbitration Association then in effect. The arbitrator shall be agreed upon by the Parties, and if the Parties are unable to agree on an arbitrator, one shall be appointed by the American Arbitration Association. The arbitrator will have the power to resolve any disputed terms of a license agreement on fair and reasonable terms with regard to matters not covered by the provisions set forth in **Attachment E**. The arbitrator's decision with respect to resolving such license terms, i.e. the award, will be conclusive and binding upon both Parties, and judgment upon the award may be entered in any court of competent jurisdiction. The arbitrator shall be instructed to endeavor to complete the arbitration and issue an award within ninety (90) days following the initiation of the arbitration. Each Party shall bear its own costs and expenses and an equal share of the mediator's and/or arbitrator's and administrative fees of mediation and/or arbitration. Except as may be required by law, neither a Party nor a mediator or arbitrator may disclose the existence, content, or results of any mediation or arbitration hereunder without the prior written consent of both Parties.

7.3 If LifeMap fails to execute a license agreement with Mount Sinai in accordance with the provisions of **Sections 7.1** and **7.2**, within [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] days following the completion of the mediation and, if applicable, arbitration processes contemplated by **Section 7.2**, Mount Sinai will be free to dispose of the exclusively optioned Mount Sinai Intellectual Property, its rights in the Code, Logic, and LMN Engine (including any EMR Data and/or LMN Components contained therein), and Mount Sinai Results and its rights in Joint Intellectual Property as Mount Sinai deems appropriate, without any further obligation to LifeMap. Further, in such case, LifeMap will be free to dispose of the LifeMap Intellectual Property and LifeMap Results and its rights in Joint Intellectual Property as LifeMap deems appropriate, without any further obligation to Mount Sinai.

7.4 During the term hereof, neither Mount Sinai nor any Affiliate of Mount Sinai will knowingly enter into any agreement with a commercial third party with respect to activities that are within the Field of Use where such agreement would commit a Committed Participant to participate in such activities; provided, however ,that the Parties acknowledge and agree that a Committed Participant can recuse him/herself from the Development Activities at any time during the term hereof. The Parties further acknowledge and agree that following such recusal, Mount Sinai is free to enter into any agreement with a commercial third party with respect to activities that are within the Field of Use where such agreement commits the recused Committed Participant to participate in such activities; provided that the recused Committed Participant will not utilize the Results in part or in whole for activities in the Field of Use with any commercial third party other than as may permitted under the definitive license agreement in accordance with **Attachment E**.

7.5 During the option and negotiation term hereof, neither Mount Sinai nor any Affiliate of Mount Sinai will seek to negotiate, enter into the negotiation of, or enter into, any agreement with a third party with respect to the subject matter of the proposed license terms and/or Mount Sinai Intellectual Property or Joint Intellectual Property that are subject to the exclusive license grant in accordance with **Attachment E** in the Field of Use. For clarity, Mount Sinai is free at any time to seek to negotiate, enter into the negotiation of, or enter into, any agreement with a third party in respect to Mount Sinai Intellectual Property or Mount Sinai's rights in Joint Intellectual Property that are subject to the non-exclusive license grant in accordance with **Attachment E**, including, Logic, LMN Components, and EMR Data. For further clarity, the Parties acknowledge and agree that Mount Sinai is free to use Logic, EMR Data, and/or LMN Components to build, by itself or with third parties, software systems capable of providing health analysis and relative risk assessment functions in the Field of Use to the extent it does not use any components that are, or are intended to be in accordance with the terms hereof (including for the avoidance of doubt **Appendix E**), exclusively licensed to, or owned by, LifeMap.

7.6 Any exclusive license granted to LifeMap pursuant to **Article** 7 hereof, will be subject to: (a) [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]; (b) the retained rights of Mount Sinai to use such rights for academic research, teaching, and patient care purposes; and (c) as applicable, to the rights of the United States government reserved under Public Laws 96-517, 97-256 and 98-620, codified at 35 U.S.C. 200-212, and any regulations issued thereunder.

7.7 The Parties agree to discuss in good faith potential joint venture(s) with respect to any proposed venture(s) outside of the Field of Use utilizing Joint Intellectual Property and/or Mount Sinai Intellectual Property developed hereunder. Notwithstanding the foregoing, neither Party is obligated to enter any further joint venture(s).

8. CONFIDENTIAL INFORMATION

8.1 "***Confidential Information***" means any business or technical information of either Party, including any information relating to either Party's product plans, designs, clients, users, costs, finances, marketing plans, business opportunities, personnel, research, development or know-how, that is disclosed by or on behalf of one Party to the other during the term of this Agreement in connection with the Development Activities. Confidential Information disclosed in tangible form shall be marked as "confidential" upon disclosure or, in the case of oral or other intangible disclosures, shall be summarized in a writing that is marked "confidential" and transmitted to the receiving Party within [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] days of the intangible disclosure, provided, however, that failure to so mark or summarize shall not alter the confidential status of such information if a reasonable person would recognize, by the content and/or context of such disclosure, that the disclosure was intended as confidential. The Code, the LMN Engine, and Documentation shall be considered Confidential Information hereunder and held in strict confidence by the Parties; provided, however, LifeMap may disclose such information, subject to reasonable confidentiality provisions, or as otherwise reasonably appropriate, with respect to the development and commercialization of its products and services, including as covered by Mount Sinai's rights as licensed in accordance with **Attachment E**. For clarity, Mount Sinai shall be free to publish the LMN Components to the extent it complies with the provisions of **Article 10** and does not publish the Code. For the purposes of such publication, the LMN Components shall not be considered LifeMap Confidential Information.

8.2 The Parties may wish, from time to time, in connection with work for the Development Activities contemplated under this Agreement, to disclose its Confidential Information to each other. Each Party shall use such other Party's Confidential Information solely for the purpose of this Agreement and also use at least reasonable efforts to prevent the disclosure of any of the other Party's Confidential Information to third parties during the term and after the termination or expiration of this Agreement for a period of five (5) years (or longer if provided for in the definitive license agreement), provided that the recipient Party's obligations hereunder shall not apply to information that: (a) is already in the recipient Party's possession at the time of disclosure thereof as evidenced by written records; (b) is or later becomes part of the public domain through no fault of the recipient Party; (c) is received from a third party having no obligations of confidentiality to the disclosing Party; or (d) is generated by the receiving Party independently of and without use of the Confidential Information of the disclosing Party as demonstrated by the receiving Party's written or electronic records created contemporaneously with such independent development. In addition, the receiving Party shall also be permitted to disclose Confidential Information of the other Party to the extent required by law, court order, or other governmental authority with jurisdiction, provided that the receiving Party promptly notifies the disclosing Party, to the extent legally permissible, with written notice of such requirement and cooperates, at the disclosing Party's written request and expense, with the disclosing Party's legal efforts to prevent or limit the scope of such required disclosure.

9. HANDLING OF USER DATA BY MOUNT SINAI

9.1 The Parties hereto hereby agree that all activities carried out hereunder, including, but not limited to all exchanges of materials and information made hereunder, shall comply with the Health Insurance Portability and Accountability Act of 1996 and all effective amendments thereto and regulations promulgated thereunder ("**HIPAA**"), including with respect to PHI ("**Protected Health Information**") as defined by HIPAA, as well as with all other applicable federal and state laws, regulations, and Mount Sinai policies. Any PHI provided by either Party to the other shall be provided only with the prior written approval of Mount Sinai's IRB (institutional review board). Any PHI received by either Party in undertaking this Agreement shall be used and in all ways handled in accordance with HIPAA and all applicable laws and regulations, and in accordance with Mount Sinai internal requirements for handling PHI. Both Parties will use appropriate safeguards to prevent unauthorized disclosures of PHI. Each Party will promptly report to the other Party any unauthorized disclosure of PHI in connection with this Agreement of which it becomes aware with adequate detail to allow the other Party to comply with applicable laws. This Section will indefinitely survive the termination or expiration of this Agreement for any reason.

10. PUBLICATION, USE OF NAME

10.1 Mount Sinai and LifeMap recognize the traditional freedom of all scientists to publish and present promptly the results of the Development Activities. Mount Sinai and LifeMap also recognize that exclusive patent rights can be jeopardized by public disclosure prior to the filing of suitable patent applications. Therefore, Mount Sinai agrees that each proposed publication, before submission to a publisher, will be submitted to LifeMap; LifeMap will have [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] days in which to review such proposed publication. If within said [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] day period, LifeMap notifies the Principal Investigator in writing that the proposed publication includes LifeMap's Confidential Information, specifically pointing out where such Confidential Information appears in the proposed publication, then the proposed publication shall not be submitted for publication or otherwise be publicly disclosed until Principal Investigator has removed such Confidential Information. If within said same [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] day period, LifeMap requests in writing that Mount Sinai and Principal Investigator delay publication to allow for patent filing, then Mount Sinai and Principal Investigator will delay publication for up to [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] days from the date of the initial submission of such proposed publication to LifeMap to permit patent application filing. When requested by Mount Sinai in advance, LifeMap, at its discretion, may allow for simultaneous submission of the proposed publication to the publisher and LifeMap. Scientists at both Mount Sinai and LifeMap will be expected to treat matters of authorship in a proper collaborative spirit, giving credit where it is due and proceeding in a manner that fosters cooperation and communication, but will not do anything in this regard that will jeopardize the issuance of a valid patent. With respect to Joint Results, the Parties agree to publish jointly, provided, however, that if the Parties have not submitted a joint manuscript with respect to such Joint Results within [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] months after completion of the Development Activities, then Mount Sinai may submit such manuscript for publication without including LifeMap authors, provided that Mount Sinai follows the review process set forth above. In such event, for publication purposes, Joint Results, to the extent necessary for such publication as determined in the author's reasonable discretion, shall not constitute LifeMap Confidential Information.

10.2 Mount Sinai will not use LifeMap's name without LifeMap's prior written consent except that Mount Sinai may acknowledge LifeMap's funding of the Development Activities in scientific publications and in listings of sponsored research projects. Except as otherwise provided in this Agreement or a license agreement, LifeMap will not use Mount Sinai's name, or the name of any trustee, officer, faculty member, student or employee thereof, for any purpose other than its performance hereunder, including but not limited to, any use in advertising or other promotional or sales literature or other publicity, or in any document used to attempt to obtain funds or financing through any public offering of any security, without the prior written approval of the Party or individual whose name is to be used, which consent shall not be unreasonably withheld or delayed.

10.3 Neither Party may publicly disclose the existence of this Agreement nor the transaction among the Parties contemplated hereunder until a public statement is released by the Parties in accordance with **Section 10.4** publicizing the relationship between the Parties.

10.4 The Parties agree that the press release attached as **Attachment F** (the "**Initial Press Release**") will be released by LifeMap and its ultimate parent company, BioTime, Inc. ("**BioTime**"), promptly after full execution of this Agreement but in any event no later than [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] days thereafter. Mount Sinai may concurrently issue a press release consistent with the content of the Initial Press Release or may jointly issue the Initial Press Release with LifeMap and BioTime. The Parties acknowledge and agree that, to the extent required by law or regulation, BioTime may also file with the Securities and Exchange Commission one or more reports under the Securities Exchange Act of 1934, as amended, and registration statements under the Securities Act of 1933, as amended, disclosing this Agreement and the relationship of the Parties, which may include the filing of this Agreement as an exhibit thereto, subject to **Section 10.5**. Subject to **Section 10.5**, the Parties agree to consult with each other before issuing any other press release or making any public statement with respect to this Agreement, and shall not issue any such press release or statement prior to obtaining the written consent of the other Party, such consent not to be unreasonably withheld or delayed.

10.5 Notwithstanding anything to the contrary contained herein, LifeMap, LifeMap Sciences or any parent company of LifeMap, including BioTime, shall be permitted to disclose the terms of this Agreement to the extent required under the securities or other disclosure laws and regulations of any country or state or the rules and regulations of any securities exchange or electronic securities trading system. If time permits, Mount Sinai will be given a reasonable opportunity to promptly review and comment on any planned public disclosure, other than disclosure that repeats or restates a prior public disclosure in its entirety that has been permitted by this Agreement but only under circumstances where intervening events have not caused such disclosure to become misleading or inaccurate. If LifeMap, LifeMap Sciences, BioTime or any other parent company of LifeMap files a copy of this Agreement with the Securities and Exchange Commission or any similar state or foreign regulatory agency as an exhibit to any registration statement, application, or report, it shall submit to such agency an application for confidential treatment seeking permission to redact from such filing competitively sensitive principal financial terms of this Agreement and the names of scientists included in this Agreement; provided, however, that LifeMap, LifeMap Sciences, BioTime or any other parent company of LifeMap may disclose financial terms of this Agreement in any such registration statement, application, or report to the extent it determines in good faith that doing so is necessary to make any statements contained therein not misleading.

11. TERMINATION

11.1 In addition to the termination right set forth in **Section 2.3** hereof, either Party may terminate this Agreement effective upon written notice to the other Party, if the other Party breaches any of the material terms or conditions of this Agreement and fails to cure such breach within ninety (90) days after receiving written notice thereof. In the event of an incurable breach, the non-breaching Party may terminate this Agreement effective upon fifteen (15) days' written notice to the breaching Party.

11.2 Either Party may suspend its activities under this Agreement immediately upon receipt of a notice from a third party that its activities hereunder infringe such third party's intellectual property rights; if such Party determines, in good faith, in its reasonable discretion after investigation of the claim of infringement, that there exists a likely infringement and determines that it cannot cure such breach within ninety (90) days or perform its obligations hereunder without engaging in such likely infringing activities, then such Party may terminate the Agreement immediately upon notice to the other Party.

11.3 Mount Sinai may terminate this Agreement upon thirty (30) days' written notice to LifeMap should any federal law require regulatory controls, compliance, or other protections for direct-to-consumer genetic testing that Mount Sinai is unable to reasonably comply with; provided that, if reasonable, Mount Sinai shall first cease the noncompliant services and/or activities; provided, further, that if LifeMap in its sole discretion, determines that ceasing the non-compliant activity would materially impact this Agreement, it may terminate this Agreement upon ten (10) days' notice to Mount Sinai. If any state requires regulatory controls, compliance, or other protections for direct-to-consumer genetic testing that Mount Sinai is unable to reasonably comply with, Mount Sinai may terminate services and/or activities with respect to such state.

11.4 Either Party may terminate this Agreement at any time after the second anniversary hereof, upon ninety (90) days' prior written notice to the non-terminating Party.

11.5 LifeMap may terminate this Agreement, at any time after the first anniversary hereof, upon ninety (90) days' prior written notice to Mount Sinai if it determines that the LifeMap Navigator is not a commercially viable product.

11.6 In the event of termination of this Agreement prior to its stated term whether for breach or for any other reason whatsoever (including under Sections 11.4 and 11.5), Mount Sinai will be entitled to retain from the payments made by LifeMap prior to termination Mount Sinai's reasonable costs of concluding the work in progress. Allowable costs include, without limitation, all costs or non-cancellable commitments incurred prior to the receipt, or issuance, by Mount Sinai of the notice of termination, and the full cost of each student, staff member, and faculty member supported hereunder through the end of such commitments. In the event of termination, Mount Sinai will submit a final report of all costs incurred and all funds received under this Agreement within sixty (60) days after the effective termination date. The report will be accompanied by a check in the amount of any excess of funds advanced over costs and allowable commitments incurred. Except in the case of an uncured material breach by Mount Sinai, in case of a deficit of funds, LifeMap will pay Mount Sinai the amount needed to cover costs and allowable commitments incurred by Mount Sinai under this Agreement for any further costs or non-cancellable commitments.

11.7 Termination of this Agreement will not affect the rights and obligations of the Parties accrued prior to termination hereof. The provisions of **ARTICLE** 4, entitled REIMBURSEMENT OF COSTS; PAYMENT; of **ARTICLE** 5, entitled RECORDS AND REPORTS; of **ARTICLE** 6, entitled INTELLECTUAL PROPERTY; of **ARTICLE** 7, entitled OPTION; of **ARTICLE** 8**,** entitled CONFIDENTIAL INFORMATION; of **ARTICLE** 9**,** entitled HANDLING OF USER DATA BY MOUNT SINAI; of **ARTICLE 10**, entitled PUBLICATION; USE OF NAME; of **subsections** 11.6 and 11.7 of **ARTICLE 11**, entitled TERMINATION; of **ARTICLE 12**, entitled DISCLAIMER OF WARRANTIES; INDEMNIFICATION; and subsections 13.3 – 13.12 of **ARTICLE 13**, entitled ADDITIONAL PROVISIONS, as well as the DEFINITIONS to the extent required to interpret such provisions, will survive such termination.

12. DISCLAIMER OF WARRANTIES; INDEMNIFICATION

12.1 EXCEPT AS EXPRESSLY SET FORTH HEREIN, EACH PARTY MAKES NO WARRANTIES, EXPRESS OR IMPLIED, AS TO ANY MATTER WHATSOEVER, INCLUDING, WITHOUT LIMITATION, WARRANTIES WITH RESPECT TO THE CONDUCT, COMPLETION, SUCCESS OR PARTICULAR RESULTS, OR THE SCIENTIFIC OR COMMERCIAL VALUE OF THE DEVELOPMENT ACTIVITIES, OR THE CONDITION, OWNERSHIP, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR THE OUTCOME OF DEVELOPMENT ACTIVITIES. WITHOUT LIMITING THE FOREGOING, EACH PARTY DOES NOT GUARANTEE THAT ANY PATENT OR OTHER INTELLECTUAL PROPERTY RIGHTS SHALL RESULT FROM THE DEVELOPMENT ACTIVITIES, THAT THE SCOPE OF ANY PATENT OR OTHER INTELLECTUAL PROPERTY RIGHTS THAT MAY RESULT THEREFROM WILL COVER THE OTHER PARTY'S INTERESTS, OR THAT ANY SUCH PATENT OR OTHER INTELLECTUAL PROPERTY RIGHTS SHALL BE FREE OF DOMINANCE BY OTHER PATENTS, INCLUDING PATENTS BASED UPON INVENTIONS MADE BY OTHER INVENTORS AT SUCH PARTY INDEPENDENTLY OF THE DEVELOPMENT ACTIVITIES. EXCEPT IN THE CASE OF A BREACH OF THE FOLLOWING SENTENCE, EACH PARTY SHALL NOT BE LIABLE FOR ANY DIRECT, INDIRECT, CONSEQUENTIAL, PUNITIVE OR OTHER DAMAGES SUFFERED BY THE OTHER PARTY OR ANY OTHER PERSON RESULTING FROM THE DEVELOPMENT ACTIVITIES OR THE USE OF THE OTHER PARTY'S INTELLECTUAL PROPERTY PRODUCT. NOTWITHSTANDING THE FOREGOING, (i) EACH PARTY HERETO REPRESENTS THAT IT HAS NO ACTUAL KNOWLEDGE THAT ANY OF THE INTELLECTUAL PROPERTY RIGHTS TO BE UTILIZED HEREUNDER INFRINGE THE ACTIVITIES OF ANY THIRD PARTIES AND AGREES THAT IN UNDERTAKING THE OBLIGATIONS CONTAINED HEREIN IT SHALL NOT KNOWINGLY INFRINGE ANY SUCH THIRD PARTY INTELLECTUAL PROPERTY RIGHTS; AND (ii) MOUNT SINAI AGREES THAT IN ITS PERFORMANCE HEREUNDER IT SHALL UNDERTAKE REASONABLE EFFORTS TO NOT MAKE ANY CONTRIBUTIONS TO THE DEVELOPMENT ACTIVITIES THAT REQUIRE ANY MOUNT SINAI BACKGROUIND INTELLECTUAL PROPERTY OR OTHER MOUNT SINAI INTELLECTUAL PROPERTY RIGHTS THAT ARE NOT LICENSED HEREUNDER.

12.2 LifeMap shall defend, indemnify and hold harmless Mount Sinai, the Principal Investigator and any of Mount Sinai's faculty, students, employees, trustees, officers, affiliates and agents (hereinafter referred to collectively, as the "**Indemnified Persons**") from and against any and all liability, claims, lawsuits, losses, damages, costs or expenses (including reasonable attorneys' fees), which the Indemnified Persons may hereafter incur, or be required to pay as a result of (i) Mount Sinai's activities relating to genetic sequencing and/or diagnostic methods carried out as part of and in accordance with the Development Activities, except as a result of, or to the extent caused by, the negligence or willful misconduct of Mount Sinai; (ii) LifeMap's use of the Results or any Mount Sinai Intellectual Property or Mount Sinai Background Intellectual Property, except as a result of, or to the extent caused by, the negligence or willful misconduct of Mount Sinai; or (iii) as a result of any breach of this Agreement by LifeMap or any act or omission of LifeMap, its employees, affiliates, contractors, licensees or agents. Mount Sinai will notify LifeMap promptly upon learning of the institution or threatened institution of any such liability, claims, lawsuits, losses, damages, costs and expenses and Mount Sinai will cooperate with LifeMap in every proper way in the defense or settlement thereof at LifeMap's request and expense. LifeMap shall control the defense and any related settlement negotiations, but shall not enter into any settlement agreement involving admission of any negligence or wrongdoing by Mount Sinai or any Mount Sinai Indemnified Person without Mount Sinai's prior written consent.

12.3 Mount Sinai shall indemnify and hold harmless LifeMap and any of its employees, officer, directors and agents (hereinafter referred to collectively, as the "**Indemnified Persons**) from and against any and all liability, claims, lawsuits, losses, damages, costs or expenses (including reasonable attorneys' fees), which the Indemnified Persons may hereafter incur, or be required to pay as a result of, or to the extent caused by, the gross negligence or willful misconduct of Mount Sinai. Lifemap will notify Mount Sinai promptly upon learning of the institution or threatened institution of any such liability, claims, lawsuits, losses, damages, costs and expenses and Lifemap will cooperate with Mount Sinai in every proper way in the defense or settlement thereof at Mount Sinai's request and expense. Mount Sinai shall control the defense and any related settlement negotiations, but shall not enter into any settlement agreement involving admission of any negligence or wrongdoing by Lifemap or any Lifemap Indemnified Person without Lifemap's prior written consent.

12.4 LifeMap will procure and maintain policies of insurance, [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] and shall name Mount Sinai as additional insured on a primary and non-contributory basis.

13. ADDITIONAL PROVISIONS

13.1 LifeMap represents that it is duly organized, validly existing and in good standing under the laws of Delaware. LifeMap has been granted all requisite power and authority to carry on its business and to own and operate its properties and assets. The execution, delivery, and performance of this Agreement have been duly authorized by the Board of Directors of LifeMap. There is no pending or, to LifeMap's knowledge, threatened litigation involving LifeMap that would affect this Agreement or LifeMap's ability to perform its obligations hereunder. There is no indenture or contract to which LifeMap is party or otherwise bound, prohibiting execution, delivery, or performance by LifeMap of this Agreement or any provision hereof.

13.2 Mount Sinai represents that it is a corporation duly organized, validly existing, and in good standing under the laws of the State of New York. Mount Sinai has been granted all requisite power and authority to carry on its business and to own and operate its properties and assets. There is no pending or, to Mount Sinai's knowledge, threatened litigation involving Mount Sinai that would affect this Agreement or Mount Sinai's ability to perform its obligations hereunder. There is no indenture or contract to which Mount Sinai is party or otherwise bound, prohibiting execution, delivery, or performance by Mount Sinai of this Agreement or any provision hereof.

13.3 No rights hereunder may be assigned by a Party, directly or by merger or other operation of law, without the express written consent of the other Party. LifeMap may assign this Agreement, either directly or by merger or operation of law, without the prior written consent of Mount Sinai, as long as: (a) at least [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] days before the proposed transaction, LifeMap gives Mount Sinai written notice and such background information as may be reasonably necessary to enable Mount Sinai to give an informed consent, provided that, in the case of an assignment to LifeMap Sciences, [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] days' prior written notice may be given; (b) the assignee agrees in writing to be legally bound by this Agreement; and (c) if the assignee is a company other than LifeMap Sciences, the assignee agrees to deliver to Mount Sinai an updated business development plan within [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] days after the closing of the proposed transaction. Any permitted assignment will not relieve LifeMap of responsibility for performance of any obligation of LifeMap that has accrued at the time of the assignment. Any prohibited assignment will be null and void. Notwithstanding the foregoing, LifeMap shall be permitted to assign the definitive license agreement to LifeMap Sciences to the extent LifeMap and LifeMap Sciences will have fulfilled the obligations outlined under (a) and (b) above.

13.4 A waiver by either Party of a breach or violation of any provision of this Agreement will not constitute or be construed as a waiver of any subsequent breach or violation of that provision or as a waiver of any breach or violation of any other provision of this Agreement.

13.5 Nothing herein will be deemed to establish a relationship of principal and agent between the Parties, nor any of their agents or employees, nor will this Agreement be construed as creating any form of legal association or arrangement which would impose liability upon one Party for the act or failure to act of the other Party. Nothing in this Agreement, express or implied, is intended to confer on any person other than the Parties hereto or their permitted assigns, any benefits, rights or remedies.

13.6 Notices under this Agreement will be in writing and sent by public overnight courier and addressed as follows, and shall be deemed given when delivered (or when delivery thereof is refused):

If to Mount Sinai:

Icahn School of Medicine at Mount Sinai
Mount Sinai Innovation Partners
Attention: Director
770 Lexington Avenue, 14th Floor
New York, NY 10065

with a copy for legal notices only to:

Icahn School of Medicine at Mount Sinai
Attention: Office of General Counsel
One Gustave L. Levy Place, Box 1099
New York, NY 10029

If to LifeMap:

Kenneth Elsner
1020 Plain Street, Suite 290
Marshfield, MA 02050

13.7 This Agreement will be construed and governed in accordance with the laws of the State of New York, without giving effect to conflict of law provisions. The Parties hereby submit to the exclusive jurisdiction of and venue in any state or federal courts located within the Southern District of New York with respect to any and all disputes concerning the subject of this Agreement.

13.8 Neither Party will be liable for any failure to perform as required by this Agreement to the extent such failure to perform is due to circumstances reasonably beyond such Party's control, including, without limitation, labor disturbances or labor disputes of any kind, accidents, failure of any governmental approval required for full performance, civil disorders or commotions, acts of aggression, acts of God, energy or other conservation measures imposed by law or regulation, explosions, failure of utilities, mechanical breakdowns, material shortages, disease, or other such occurrences.

13.9 Each Party will comply with all laws, regulations and other legal requirements applicable to it in connection with this Agreement, including but not limited to any legal requirements applicable to its use of the Results or any of the other Party's Intellectual Property Rights or Background Intellectual Property and laws controlling the export of technical data, computer software, laboratory prototypes, and all other export controlled commodities. Each Party represents that it does not know of any legal requirements applicable to the other Party's use of the Results or its Intellectual Property Rights or Background Intellectual Property that would materially impact the other Party's use thereof.

13.10 The Parties will not knowingly disclose, and will use reasonable efforts to prevent disclosure, to the other Party of any information subject to ITAR controls, or in the Commerce Control List (EAR Part 774 and Supplements), or 10 CFR Part 810 Restricted Data or Sensitive Nuclear Technology. If for purposes of the Development Activities, a Party intends to disclose export-controlled information to the other Party, the disclosing Party will not disclose such information to the other Party unless and until a plan for transfer, use, dissemination and control of the information has been approved by the other Party.

13.11 Except where specifically cited, all references to Articles are to Articles herein, and all references to Sections are to Sections herein. The headings used in this Agreement have been inserted for convenience of reference only and do not constitute a part of this Agreement or define, expand or limit the provisions hereof. The words "hereof," "herein" and "hereunder" and words of similar import when used in this Agreement shall refer to this Agreement as a whole, including the Attachments, and any attachments, exhibits and schedules, and not to any particular provision of this Agreement. Wherever any words are used herein in the masculine, feminine or neuter gender, they shall be construed as though they were used in another gender in all cases where they would so apply, and whenever any words are used herein in the singular or plural form, they shall be construed as though they were also used in the other form in all cases where they would so apply. The word "including" (and with correlative meaning "include") means "including but not limited to."

13.12 This Agreement and the Attachments, and any attachments, exhibits or schedules hereto or thereto, embody the entire understanding between the Parties relating to the subject matter hereof and supersedes all prior understandings and agreements, whether written or oral. This Agreement may not be amended, modified, superseded or canceled and none of the terms, provisions, covenants, representations, warranties, covenants or conditions may be waived, except by a written instrument executed by the Parties, or in the case of waiver, by the Party waiving compliance. The Parties agree that this Agreement is not and shall not be amended or otherwise modified by any provision of or use of any website or software, or by any electronic or online agreement regardless of its terms. It may be amended only in writing, setting out the specific modification(s), signed by the handwritten signature of duly authorized representatives of both Parties, and executed and delivered in accordance with the provisions of this Agreement. An original handwritten signature meeting the requirements in the preceding sentence and transmitted by facsimile (including scanned email attachments) shall be considered a handwritten signature for purposes of this Agreement.

13.13 Execution signatures of this Agreement may be exchanged in counterparts and as scanned email attachments, and all signatures so exchanged shall be considered as original and as one and a part of the same instrument.

[signature page follows]

IN WITNESS WHEREOF, the duly authorized representatives of the Parties hereby execute this Agreement as of the date first written above.

Icahn School of Medicine at Mount Sinai

By: s/Scott L. Friedman

Name: Scott L. Friedman

Title: Dean of Therapeutic Discovery

Date: May 6, 2014

LifeMap Solutions, Inc.

By: s/Corey Bridges

Name: Corey Bridges

Title: CEO

Date: May 6, 2014

I have read and understand
the responsibilities of
the Principal Investigator
under this Agreement
and agree to abide by them and fulfill them:

By: s/Eric Schadt

Date: May 6, 2014

Attachment A

Development Activities

[*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]

Attachment B

Budget

[*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]

Attachment C
Visiting Scientist Agreement

This Visiting Scientist Agreement (the "**Agreement**") is entered into as of _____(the "**Effective Date**"), by and between LifeMap Solutions, Inc., a corporation organized and existing under the laws of Delaware and having a principal place of business at 150 East 57th Street, New York, NY 10022 ("**LifeMap**"), and **Icahn School of Medicine**, a not-for-profit New York corporation organized and existing under the Laws of the State of New York, and having a principal place of business at One Gustave L Levy Plac, New York, NY 10029, and its Affiliates (collectively, "**Mount Sinai**"). LifeMap and Mount Sinai may each be referred to herein individually as a "**Party**" and collectively as the "**Parties**."

WHEREAS, LifeMap and Mount Sinai are parties to that certain Co-Development and Option Agreement effective as of May 1, 2014 (the "**Co-Development Agreement**");

WHEREAS, as provided in the Co-Development Agreement (at Section 2.3), the Parties contemplate the possibility that Mount Sinai will host LifeMap employees as participants in research under the Co-Development Agreement on Mount Sinai premises using Mount Sinai facilities ("LifeMap Visiting Scientists"); and

NOW, THEREFORE, in consideration of the mutual promises and covenants set forth below and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties hereby agree as follows:

1. DEFINITIONS AND INTERPRETATION.

1.1 Defined Terms. Capitalized terms not defined herein shall have the meanings assigned to them in the Co-Development Agreement.

1.2 Interpretation. Except where the context expressly requires otherwise, (a) the use of any gender herein shall be deemed to encompass references to either or both genders, (b) the words "include", "includes" and "including" shall be deemed to be followed by the phrase "without limitation," (c) the word "will" shall be construed to have the same meaning and effect as the word "shall," (d) any definition of or reference to any agreement, instrument or other document herein shall be construed as referring to such agreement, instrument or other document as from time to time amended, supplemented or otherwise modified (subject to any restrictions on such amendments, supplements or modifications set forth herein), (e) any reference herein to any person shall be construed to include the person's successors and assigns, (f) the words "herein," "hereof," and "hereunder," and words of similar import, shall be construed to refer to this Agreement in its entirety and shall not be understood as a reference solely to a particular provision of this Agreement, (g) all references herein to Sections or Exhibits shall be construed to refer to Sections or Exhibits of this Agreement, and references to this Agreement include all Exhibits hereto, (h) the word "notice" means notice in writing (whether or not specifically stated) unless expressly stated otherwise, and shall include notices, consents, approvals and other written communications contemplated under this Agreement, (i) provisions that require that a Party or the Parties hereunder "agree," "consent" or "approve" or the like shall require that such agreement, consent or approval be specific and in writing unless expressly stated otherwise, whether by written agreement, letter, approved minutes or otherwise (but excluding e-mail and instant messaging), and (j) references to any specific law, rule or regulation, or article, section or other division thereof, shall be deemed to include the then-current amendments thereto or any replacement or successor law, rule or regulation thereof.

1.3 In Event of Conflict, Co-Development Agreement Controls. In the event that any terms or obligations set forth herein are determined to be in conflict with the Co-Development Agreement, the terms and conditions fo the Co-Development Agreement shall control.

2. Visiting Scientists

2.1 "**Visiting Scientist**" means (a) an employee of LifeMap undertaking Development Activities under the supervision of the Principal Investigator pursuant to the Co-Development Agreement on Mount Sinai premises.

2.2 General. Each Visiting Scientist shall remain an employee of Lifemap and shall work only as authorized by the Co-Development Agreement on Mount Sinai's premises during normal business hours. Each Visiting Scientist shall be accountable to LifeMap with respect to reporting of vacation, sick time and other leave, as well as performance objectives and all other personnel matters.

2.3 Designation of Visiting Scientists. All Visiting Scientists shall be authorized and identified in Attachment A to the Co-Development Agreement or in an amendment to Attachment A signed by both Parties.

3. LIFEMAP RESPONSIBILITIES.

Lifemap shall be responsible for paying each Visiting Scientist's salary and other compensation, employment benefits, withholding taxes, expense reimbursements and other costs related to employment with Lifemap. Lifemap shall also be responsible for providing and maintaining worker's compensation insurance and commercial general liability insurance covering the activities of each Visiting Scientist during the Co-Development Agreement Term, including for work performed on Mount Sinai's premises. Lifemap shall deliver certificates evidencing such insurance to Mount Sinai upon request. Lifemap agrees that each Visiting Scientist shall be subject to and comply with Mount Sinai's policies regarding discrimination, harassment and other employment related complaints, rules of conduct, substance abuse/rehabilitation, equal opportunity/affirmative action, and electronic communications and computer systems as if Visiting Scientist were an employee of Mount Sinai. Lifemap agrees that each Visiting Scientist, while working on Mount Sinai's premises, shall comply with all other reasonable and relevant health and safety and security requirements and other reasonable instructions issued by Mount Sinai or its representatives. Each Visiting Scientist will execute and deliver to Mount Sinai a Letter of Acknowledgement and Understanding in substantially the form attached hereto. Any changes to the form attached as Exhibit A must be approved in writing by both Parties.

4. MOUNT SINAI RESPONSIBILITIES.

Each Visiting Scientist shall be allowed to attend non-confidential meetings and training sessions conducted by or on behalf of Mount Sinai to the extent reasonably required by their responsibilities under the Development Activities. Mount Sinai shall treat as Confidential Information of Lifemap any personal data regarding any Visiting Scientist or other employees of Lifemap that it obtains in connection with this Agreement. A Visiting Scientist shall not be asked to work on any matter other than the Development Activities. For the avoidance of doubt, a Visiting Scientist will not (i) participate in any employee benefit plans of Mount Sinai or receive any other form of compensation from Mount Sinai or (ii) have any express or implied power to enter into any contracts or commitments or to incur any liabilities in the name of, or on behalf of, Mount Sinai, or to bind Mount Sinai in any respect whatsoever. In addition, Mount Sinai shall not be liable for the payment of any wage, salary or compensation of any kind for any service performed by a Visiting Scientist.

5. INTELLECTUAL PROPERTY.

[*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]

6. CONFIDENTIALITY.

6.2 Confidentiality. The confidentiality obligations of the Co-Development Agreement are incorporated herein by reference, without regard to any expiration or termination of the Co-Development Agreement, and all Confidential Information disclosed in connection with this Agreement shall be subject to the confidentiality provisions of the Co-Development Agreement, and all references to "this Agreement" therein shall be deemed to be references also to this Agreement. In addition, a Visiting Scientist is not permitted to bring any confidential information or materials of any Third Party onto Mount Sinai's premises or otherwise disclose to or use at Mount Sinai any such confidential information or materials without the prior written consent of Mount Sinai and an authorized representative of the Third Party.

6.2 Public Announcements; Publications. Article 10 of the Co-Development Agreement is incorporated herein by reference, provided however that all references to "this Agreement" therein shall be deemed also to be references to this Agreement.

7. REPRESENTATIONS.

7.1 Mutual Representations. The Parties hereby represent to each other that:

7.1.1 it is duly organized, validly existing and in good standing under the laws of the jurisdiction of its organization;

7.1.2 it has the power and authority to execute and deliver this Agreement and to perform its obligations hereunder; and

7.1.3 the execution, delivery and performance by such Party of this Agreement and its compliance with the terms and provisions hereof does not and will not conflict with or result in a breach of or default under any contract to which it is a party as of the effective date of this Agreement.

8 TERM AND TERMINATION.

8.1 Term. The term of this Agreement will commence on the date of last signature hereto and shall expire upon expiration or termination of the Co-Development Agreement.

8.2 Termination for Cause. A Party may terminate this Agreement for cause, at any time during the term of this Agreement, by giving written notice to the other Party in the event that such other Party commits a material breach of its obligations under this Agreement and such material breach remains uncured for ninety (90) days, measured from the date written notice of such material breach is given to such other Party..

8.3 Effects of Termination.

8.3.1 General. In the event of expiration or termination of this Agreement for any reason, except as otherwise expressly provided herein, all rights and obligations of each Party hereunder shall cease, and each Visiting Scientist's access to Mount Sinai's facilities shall immediately terminate.

8.3.2 Termination of Development Plan. In the event that the Co-Development Agreement is terminated with respect to any Development Plan, and not with respect to all Development Activities, except as otherwise expressly provided herein, all rights and obligations of each Party hereunder with respect to such terminated Development Plan shall cease, but this Agreement shall otherwise remain in full force and effect (including with respect to all Development Activities not so terminated).

8.3.3 Termination of Visiting Scientist. If a Visiting Scientist fails to comply with Mount Sinai policies, requirements or instructions in accordance with this Agreement or otherwise to comply with its obligations under this Agreement, then (a) such individual shall cease to be a Visiting Scientist hereunder upon Mount Sinai giving written notice thereof to Lifemap and (b) the Parties shall, if Mount Sinai agrees to do so in its discretion, cooperate to identify and designate in writing a replacement Visiting Scientist to the extent available. In the event that (i) the status of an individual as a Visiting Scientist is terminated pursuant to the preceding sentence or (ii) the employment of any Visiting Scientist with Lifemap is terminated for any reason, except as otherwise expressly provided herein, all rights and obligations hereunder with respect to such terminated Visiting Scientist shall cease and such terminated Visiting Scientist's access to Mount Sinai's facilities shall immediately terminate, but this Agreement shall otherwise remain in full force and effect.

8.3.4 Accrued Rights. Expiration or termination of this Agreement for any reason shall be without prejudice to any right which shall have accrued to the benefit of either Party prior to such termination, including damages arising from any breach under this Agreement. Expiration or termination of this Agreement shall not relieve either Party from any obligation which is expressly indicated to survive such expiration or termination.

8.3.5 Survival. The following sections, together with any sections that expressly survive, shall survive expiration or termination of this Agreement for any reason: **Error! Reference source not found.,** 0, 0, 0, 0 and 11.

9. INDEMNIFICATION.

Each Party will indemnify and hold harmless the other Party and such other Party's Sublicensees, Affiliates and their respective employees, trustees, medical and professional staff, officers, directors and agents (each, an "**Indemnified Party**") from and against any and all liability, loss, expense, action, suit, claim, demand, judgment or prosecution ("**Claims**") that may be brought or instituted against such other Party and/or an Indemnified Party, in proportion to and to the extent that such Claims are based on, resulting from or arising out of the material breach by the indemnifying Party of any of its representations, warranties or covenants set forth herein, except to the extent that such Claims are caused by or result from the negligence or intentional acts or omissions of such other Party and/or any Indemnified Party. Section 12 of the Co-Development Agreement is incorporated herein by reference, and any claim for indemnification pursuant to Section 9 of this Agreement shall be subject to the provisions of Section 12 of the Co-Development Agreement.

10. COPY OF AGREEMENT.

Lifemap shall provide each Visiting Scientist with a copy of this Agreement.

11. MISCELLANEOUS.

11.1 Assignment. Neither this Agreement nor any rights or obligations hereunder may be assigned by either Party, without the prior written consent of the other Party. Any assignment not in accordance with this Section 0 shall be void.

11.2 Force Majeure. Each Party shall be excused from the performance of its obligations under this Agreement to the extent that such performance is prevented by force majeure (defined below) and the nonperforming Party promptly provides notice of the prevention to the other Party. Such excuse shall be continued so long as the condition constituting force majeure continues and the nonperforming Party takes Commercially Reasonable Efforts to remove the condition. For purposes of this Agreement, "force majeure" shall include conditions beyond the control of the Parties, including an act of God, act of terrorism, voluntary or involuntary compliance with any Law or order of any government, war, civil commotion, labor strike or lock-out, epidemic, failure or default of public utilities or common carriers or destruction of production facilities or materials by fire, earthquake, storm or like catastrophe.

11.3 **Notices**. If to Lifemap: Notices must be provided to the following address or such other address as provided by one Party to the other in writing according to the paragraph below:

If to Mount Sinai:

Icahn School of Medicine at Mount Sinai
Mount Sinai Innovation Partners
Attention: Director
770 Lexington Avenue, 14th Floor
New York, NY 10065

with a copy for legal notices only to:

Icahn School of Medicine at Mount Sinai
Attention: Office of General Counsel
One Gustave L. Levy Place, Box 1099
New York, NY 10029

If to LifeMap:

LifeMap Solutions, Inc.
150 East 57th Street,
New York, NY 10022

with a copy for legal notices only to:

Kenneth S. Elsner
1020 Plain Street, Suite 290
Marshfield, MA 02050

Notices so given will be effective upon the earlier of (i) receipt by the party to which notice was provided, or (ii) the fifth business day after mailing. Breach of contract notices must specify in detail the nature of the breach and the remedy requested by the party giving notice. Notices to a party must be sent to the address and number specified above. If a party wishes to change its address for notices, the change will become effective only on the date specified in such notice or 60 days after the new address was provided, whichever is later. Rejection or inability to deliver a notice because of a change in address for which no or insufficient notice was given will be deemed to be receipt of the notice as of the date of such rejection or inability to deliver.

11.4 Amendment. No amendment, modification or supplement of any provision of this Agreement shall be valid or effective unless made in writing and signed by a duly authorized officer of each Party.

11.5 Waiver. No provision of this Agreement shall be waived by any act, omission or knowledge of a Party or its agents or employees except by an instrument in writing expressly waiving such provision and signed by a duly authorized officer of the waiving Party. The waiver by either of the Parties of any breach of any provision hereof by the other Party shall not be construed to be a waiver of any succeeding breach of such provision or a waiver of the provision itself.

11.6 Severability. If any clause or portion thereof in this Agreement is for any reason held to be invalid, illegal or unenforceable, the same shall not affect any other portion of this Agreement, as it is the intent of the Parties that this Agreement shall be construed in such fashion as to maintain its existence, validity and enforceability to the greatest extent possible. In any such event, this Agreement shall be construed as if such clause or portion thereof had never been contained in this Agreement, and there shall be deemed substituted therefor such provision as will most nearly carry out the intent of the Parties as expressed in this Agreement to the fullest extent permitted by applicable Law.

11.7 Descriptive Headings. The descriptive headings of this Agreement are for convenience only and shall be of no force or effect in construing or interpreting any of the provisions of this Agreement.

11.8 Export Control. This Agreement is made subject to any restrictions concerning the export of products or technical information from the United States of America or other countries which may be imposed upon or related to either Party.

11.9 Dispute Resolution. If any dispute or disagreement arises between LifeMap and Mount Sinai in respect of this Agreement, they shall follow the procedures set forth in Section 13.7of the Co-Development Agreement, which is incorporated herein by reference.

11.10 Governing Law. Section 13.7 of the Co-Development Agreement is hereby incorporated by reference with the understanding the references therein to "Agreement" shall be understood also as references to this Agreement.

11.11 Entire Agreement. This Agreement, including its Exhibits, and the Co-Development Agreement and its exhibits and other attachments, constitute and contain the complete, final and exclusive understanding and agreement of the Parties and supersede any and all prior negotiations, correspondence, understandings and agreements, whether oral or written, between the Parties respecting the subject matter hereof and thereof.

11.12 Independent Contractors. Both Parties are independent contractors under this Agreement. Nothing herein contained shall be deemed to create an employment, agency, joint venture or partnership relationship between the Parties or any of their agents or employees, or any other legal arrangement that would impose liability upon one Party for the act or failure to act of the other Party. Neither Party shall have any express or implied power to enter into any contracts or commitments or to incur any liabilities in the name of, or on behalf of, the other Party, or to bind the other Party in any respect whatsoever.

11.13 Counterparts. This Agreement may be executed in two (2) counterparts, each of which shall be an original and both of which shall constitute together the same document. Counterparts may be signed and delivered by facsimile or PDF file, each of which shall be binding when received by the applicable Party. The Parties agree that a copy of the original signature (including an electronic copy) may be used for any and all purposes for which the original signature may have been used. The Parties agree that they will have no rights to challenge the use or authenticity of this Agreement based solely on the absence of an original signature.

11.14 Further Actions. Each Party agrees to execute, acknowledge and deliver such further instruments, and to do all such other acts, as may be necessary or appropriate in order to carry out the purposes and intent of this Agreement.

IN WITNESS WHEREOF, duly authorized representatives of the Parties have duly executed this Agreement as of the Effective Date.

Lifemap Solutions, Inc.	Icahn School of Medicine at Mount Sinai
By: _____	By: _____
Name:	Name:
Title:	Title:

Letter of Acknowledgement and Understanding

Reference is made to the Visiting Scientist Agreement effective as of _____between LifeMap Solutions, Inc., a corporation organized and existing under the laws of Delaware and having a principal place of business at 150 East 57th Street, New York, NY 10022 ("**LifeMap**"), and **Icahn School of Medicine**, a not-for-profit New York corporation organized and existing under the Laws of the State of New York, and having a principal place of business at One Gustave L Levy Place, New York, NY 10029, and its Affiliates (collectively, "**Mount Sinai**"). Capitalized terms used but not defined in this Letter of Acknowledgement shall have the meanings assigned to them in the Visiting Scientist Agreement.

VISITING SCIENTISTS:

I acknowledge I have received copies of or access to the following Mount Sinai policies:

If I have any questions or need to report a concern regarding the foregoing policies, I understand I can contact Mount Sinai Innovation Partners at (212) 659-9680.

I understand that Mount Sinai reserves the right to make changes to its policies or procedures, whenever it deems it necessary or useful to do so.

I understand that I am responsible for understanding and complying with Mount Sinai's policies, procedures and instructions as applicable pursuant to the Agreement. Further, I have been instructed to discuss any outstanding issues or concerns regarding the foregoing policies, procedures and instructions with Mount Sinai's Environmental Health and Safety Department or the Human Resources Department, as applicable.

I acknowledge I have received a copy of the Visiting Scientist Agreement and agree to be bound by all provisions of the Agreement and, through it, the Co-Development Agreement, that are applicable to me in my capacity as a Visiting Scientist thereunder. I further acknowledge, without limitation, that I understand the provisions of the Co-Development Agreement which are cited in the Visiting Scientist Agreement and relate to confidentiality, publication, intellectual property, and prohibitions on the use, disclosure or transfer of materials outside of Mount Sinai.

Read and acknowledged by:

Print Name: _____

Signature: _____

Institution: _____

Date: _____

Attachment D

Background Intellectual Property

Promptly after the first Steering Committee (see Section 2.1 of the Agreement) the Parties shall identify and list by amendment the Background Intellectual Property anticipated to be used in the Development Activities.

Attachment E

License Terms

Capitalized terms not otherwise defined in this **Attachment E** shall have the same meaning as defined in the Agreement to which this **Attachment E** is attached and incorporated.

Parties	Icahn School of Medicine at Mount Sinai, a nonprofit education corporation organized and existing under the laws of the State of New York having an office at One Gustave L. Levy Place, New York, New York 10029 ("**Mount Sinai**"), and LifeMap Solutions, Inc., a corporation organized and existing under the laws of Delaware ("**LifeMap**"), having a place of business at 1301 Bay Harbor Parkway, Suite 100, Alameda, CA 94502. LifeMap shall include LifeMap and its Affiliates. Mount Sinai shall include Mount Sinai and its Affiliates. "*Affiliate*" means a legal entity that is controlling, controlled by or under common control with a Party. For purposes of the definitive license agreement, the word "*control*" means (x) the direct or indirect ownership of more than fifty percent (50%) of the outstanding voting securities of a legal entity, (y) the right to receive fifty percent (50%) or more of the profits or earnings of a legal entity, or (z) the right to determine the policy decisions of, or to direct or cause the direction of the management of, a legal entity. Each Party shall be fully liable for its Affiliate's compliance with the terms and obligations of the definitive license agreement.
Patent Rights	United States and foreign patents and/or patent applications claiming Mount Sinai Intellectual Property or Joint Intellectual Property, as well as any and all patents issuing therefrom and from all divisionals and continuations, reissues, reexaminations, renewals, substitutions, and extensions thereof, that claim priority to such patents and/or patent applications; for clarity this includes but is not limited to all claims of continuation-in-part applications (solely to the extent such continuation-in-part can claim the same priority date) and patents issuing thereon that claim priority to said United States patent applications. Such Patent Rights will be specifically listed/described in an exhibit to the definitive license agreement.
Mount Sinai Intellectual Property and Joint Intellectual Property	As defined in **Section 6.2** of the Agreement

Technical Information	Technical Information is all Intellectual Property Rights not covered by a Valid Claim, including Results, the Mount Sinai Intellectual Property, the Code, and the LMN Engine, owned solely or jointly by, or licensed by, Mount Sinai. For clarity, Technical Information expressly *excludes* Logic and LMN Components. Such Technical Information will be specifically listed/described in an exhibit to the definitive license agreement.
Logic	Underlying know-how possessed by Mount Sinai prior to the effective date of the definitive license agreement that relates to development of software, algorithms, and databases capable of analyzing complex data sets and generating predictive models.
Mount Sinai Background Intellectual Property	Background Intellectual Property owned by, or licensed by, Mount Sinai that are necessary to practice the Patent Rights and/or Technical Information and are available for licensing. Such Mount Sinai Background Intellectual Property will be specifically listed/described in an exhibit to the definitive license agreement, and shall include the Background Intellectual Property as defined in the Agreement to which this **Attachment E** is attached.
Valid Claim	(a) an unexpired claim of an issued patent within the Patent Rights that has not been ruled unpatentable, invalid or unenforceable by a final and unappealable decision of a court or other competent authority in the subject country; or (b) a claim of a pending application within the Patent Rights.
Deliverables	Copies of the Code and Documentation and other related materials reasonably requested by LifeMap from time to time (but Mount Sinai shall not be required to deliver such more frequently than [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] in the case of Code) shall be delivered by Mount Sinai to LifeMap (and shall be held strictly confidential by LifeMap in accordance with **Article 8**; provided, however, LifeMap may disclose such information, subject to reasonable confidentiality provisions, or as otherwise reasonably appropriate, with respect to the development and commercialization of the Licensed Products and Licensed Services); provided that, if reasonable, only the Improvements need be delivered. If LifeMap requires a full copy of any of the foregoing, Mount Sinai shall reasonably comply.

Licensed Products	Products or part(s) thereof, that are made, made for, Used (including used), imported, sold or offered for sale by LifeMap, its Distributors (as defined below), or its Sublicensees: (i) where in the absence of the definitive license agreement, such activity would infringe at least one Valid Claim; or (ii) where such products arise or are derived from the use of, or otherwise incorporate, Technical Information, Logic, LMN Components, and/or Mount Sinai Background Intellectual Property, including, for the avoidance of doubt, Code and the LMN Engine (to the extent, with respect to all of the foregoing, not solely owned by LifeMap).
Licensed Service	Any service, including without limitation database access, provided by LifeMap, its Distributors (as defined below), or its Sublicensees to a third party in exchange for consideration where such service makes use of Licensed Product(s) or otherwise exploits or monetizes Mount Sinai Technical Information, Logic, LMN Components, and/or Background Intellectual Property, including, for the avoidance of doubt, Code and the LMN Engine (to the extent, with respect to all of the foregoing, not solely owned by LifeMap).
License Grant	Subject to agreement on final terms, Mount Sinai and its Affiliates will grant to LifeMap, and LifeMap will accept, a worldwide exclusive, right and license during the Term of the definitive license agreement, with the right to sublicense through multiple tiers, under the Patent Rights and Mount Sinai's rights (which "rights" as used in this Section, shall include, Intellectual Property Rights), including rights in the Results, and Mount Sinai's rights in Joint Intellectual Property and Joint Results, the LMN Engine, and the Code and any related Documentation (to the extent, with respect to all of the foregoing, not solely owned by LifeMap) (i) to research, discover, develop, make, have made, Use, have used, import, have imported, lease, sell, have sold and offer for sale Licensed Products and Licensed Services in the Field of Use and throughout the Territory; and (ii) to Use (including use) the Mount Sinai Technical Information to research, discover, develop, make, have made, Use, have used, import, have imported, lease, sell, have sold and offer for sale Licensed Products and Licensed Services in the Field of Use and throughout the Territory. Notwithstanding the foregoing, the Parties acknowledge and agree any exclusive license granted to Mount Sinai's rights outlined above, *expressly excludes* (a) an exclusive license to EMR Data and/or LMN Components contained and/or incorporated in the LMN Engine or any Improvements thereto; (b) the Non-Exclusive Rights; and (c) the right to sell any of Mount Sinai's Results and EMR Data, except to the extent incorporated in a physical Licensed Product for use as part of such Licensed Product. Subject to agreement on final terms, Mount Sinai and its Affiliates will grant to LifeMap, and LifeMap will accept, a worldwide non-exclusive, right and license during the Term of the definitive license agreement, with the right to sublicense through multiple tiers, under the Patent Rights and Mount Sinai's rights to (i) the Mount Sinai Background Intellectual Property; (ii) the Non-Exclusive Rights; (iii) the Logic, and (iv) EMR Data and/or LMN Components contained and/or incorporated in the LMN Engine (which LMN Engine is exclusively licensed under the definitive license agreement with respect to its components that are not EMR Data and/or LMN Components (to the extent such EMR Data and/or LMN Components is necessary to drive the LMN Engine, as applicable), and any related Documentation, to research, discover, develop, make, have made, Use, have used, import, have imported, lease, sell, have sold and offer for sale Licensed Products and Licensed Services in the Field of Use and throughout the Territory.

Non-Exclusive Rights	· Code that pertains to analysis of genetic data sets · Code that pertains to compiling data sets
Retained Rights	Any and all licenses granted under the definitive license are subject to: (a) the right of Mount Sinai to make and to use the subject matter described and/or claimed in the Patent Rights and Mount Sinai Technical Information and to distribute to not-for-profit third parties, for academic research, teaching, and educational purposes only; such use shall not be for any commercial purpose, however, industrially sponsored academic research shall not be considered a commercial purpose; (b) the rights, conditions and limitations imposed by U.S. law (see 35 U.S.C. § 202 et seq. and regulations pertaining thereto), including the royalty-free non-exclusive license granted to the U.S. government; (c) the right of Mount Sinai to practice the Patent Rights and Mount Sinai Technical Information for clinical care purposes at Mount Sinai; (d) the right of Mount Sinai to use or otherwise exploit Logic, EMR Data, LMN Components, and Mount Sinai Background Intellectual Property for any and all purposes; and (e) the ownership rights of LifeMap to all User Data.

Use	Defined in **Article 1** of the Agreement.
Term	Subject to the terms of the Agreement, and as further specified in this Attachment, from the Effective Date of the definitive license agreement until the expiration of the Royalty Term.
Territory	Worldwide
Consumer	Defined in **Article 1** of the Agreement.
User Data	Defined in **Article 1** of the Agreement.
Mobile User Application	Defined in **Article 1** of the Agreement.
Field of Use	Consumer applications (including, for clarity, Internet, Web-based, mobile user and Mobile User Applications, databases and software products), based on interpretation and/or presentation of Wide Scale Health Related Information which is defined as one or more components of genetic information, clinical data and other information of individuals relating to human disease, health and/or wellness, in which the genetic information component (if such component is available) involves [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]
Business Development Plan	Prior to execution of a definitive license, LifeMap shall provide Mount Sinai with a detailed business development plan. The Parties shall discuss in good faith any of Mount Sinai's requests for additional details or clarifications to such business development plan.

<table>
<tr><td>Due Diligence</td><td colspan="2">LifeMap shall use reasonable commercial efforts to develop and commercialize Licensed Products. LifeMap shall be required to demonstrate suitable investment in the development of Licensed Products. The Parties shall negotiate in good faith defined diligence milestones and timelines to be included in the definitive license agreement to ensure such Licensed Products are being diligently developed.</td></tr>
<tr><td rowspan="6"></td><td>Diligence Milestone</td><td>Due Date</td></tr>
<tr><td>Documentation of at least [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] in funding [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] committed by LifeMap to fund development of Licensed Products (the investment made into LifeMap prior to the due date will be counted toward the funding sum above)</td><td>[*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] months after execution of definitive license agreement</td></tr>
<tr><td>Prototype complete</td><td>[*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] months after execution of definitive license agreement</td></tr>
<tr><td>Beta launch</td><td>[*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] months after execution of definitive license agreement</td></tr>
<tr><td>Public product launch</td><td>[*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] months after execution of definitive license agreement</td></tr>
<tr><td colspan="2">If LifeMap fails to meet such diligence milestones as defined in the definitive license agreement, Mount Sinai can convert said license to a non-exclusive license provided that any delays caused by Mount Sinai will extend the foregoing due dates on a day-for-day basis.</td></tr>
</table>

Copies of the Code and Documentation	Copies of the Code and Documentation shall be delivered by Mount Sinai to LifeMap not less than every [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] days (and shall be held strictly confidential by LifeMap in accordance with **Article 8**; provided, however, LifeMap may disclose such information, subject to reasonable confidentiality provisions, or as otherwise reasonably appropriate, with respect to the development and commercialization of the Licensed Products and Licensed Services); provided that, if there are only Improvements and if reasonable, only the Improvements need be delivered. If LifeMap requires a full copy of any of the foregoing, Mount Sinai shall reasonably comply.
Patent Maintenance and Reimbursement	[*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]
Patent Extension	LifeMap shall promptly notify Mount Sinai of any marketing authorization for any Licensed Product for which an application for patent term extension may be based, including any third-party product, or any other event in any country that would enable Mount Sinai or LifeMap as appropriate to apply for patent term extension. For clarity, LifeMap will notify Mount Sinai of an opportunity to apply for patent term extensions as soon as the event triggering the opportunity for application has occurred. LifeMap agrees to cooperate fully with Mount Sinai to provide any information or documentation necessary to support an application for patent term extension.
Royalty Term	On a Licensed Product-by-Licensed Product or Licensed Service-by-Licensed Service and country-by-country basis, from first commercial sale or commercial license, whichever comes first, until the later of: (a) expiration of the last Patent Rights covering such Licensed Product or Licensed Service in such country; (b) expiration of any market exclusivity period granted by a regulatory agency with respect to such Licensed Product or Licensed Service in such country; or (c) LifeMap's final discontinuation of sale or commercial licensing of a Licensed Product or Licensed Service in such country. For clarity, should LifeMap discontinue sale of a Licensed Product or Licensed Service in a country and later resume sale of such Licensed Product or Licensed Service in said country, LifeMap would still be subject to the royalty obligations hereunder and its license rights hereunder.

Net Sales	The gross amount, prior to any discounts or other list price reductions, invoiced by LifeMap and its Affiliates and its Sublicensee(s) for sales of Licensed Products or Licensed Services for end use or consumption by third parties that are not Affiliates or Sublicensees of the selling party (unless such purchasing Affiliate or Sublicensee is the end user of the Licensed Product or Licensed Service, in which case the amount billed therefore shall be deemed to be the same amount that would be billed to a third-party end user in an arm's-length transaction) less the total of the following deductions to the extent they are included in the gross invoiced sale price of the Licensed Products or Licensed Services or otherwise directly paid or incurred by LifeMap or its Affiliates or its Sublicensees with respect to the sale of the Licensed Product or Licensed Services to such third party: (a) normal and customary quantity and/or cash discounts and sales returns and allowances, including, without limitation, those granted on account of price adjustments, billing errors, rejected goods, damaged goods, returns, rebates actually allowed and taken, administrative or other fees or reimbursements of similar payments to wholesalers or other distributors, buying groups, or other institutions; (b) any rebates or similar payments made with respect to sales paid for by any governmental or regulatory authority such as, by way of illustration and not in limitation of the Parties' rights hereunder, Federal or state Medicaid, Medicare or similar state program or equivalent foreign governmental program; (c) customs or excise duties or other duties directly imposed and related to the sales making up the gross invoice amount; (d) sales and other taxes and duties directly related to the sale, to the extent that such items are included in the gross invoice price (but not including taxes assessed against the income derived from such sale); (e) freight, postage, shipping, and insurance expenses (if separately identified in such invoice).

Running Royalties	LifeMap will pay to Mount Sinai a quarterly royalty of [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] percent ([*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]%) of Net Sales of all Licensed Products and Licensed Services that are sold by LifeMap, its Affiliates, and/or Sublicensees.
Reports and Records	· **Royalty Reports**: Within [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] days after the end of each calendar quarter following first commercial sale or commercial licensing of a Licensed Product or Licensed Service, LifeMap will deliver to Mount Sinai a detailed report, certified by the chief financial officer of LifeMap, detailing the calculation of all royalties and fees due to Mount Sinai for such quarter. The report will include, at a minimum: (a) the number of Licensed Products or Licensed Services involved in sales, listed by product and by country; (b) gross consideration invoiced, billed or received for sales in such quarter; (c) Net Sales, listed by product or service and by country including an itemized list of all deductions permitted in the definition of Net Sales; (e) sublicense fees and other consideration received by LifeMap from Sublicensees, listed by product and by country; and (f) royalties and fees owed to Mount Sinai, listed by category, by product or service, and by country. · **Development Reports**: LifeMap will provide Mount Sinai annually with detailed written progress reports discussing the development, evaluation, testing, and commercialization of all Licensed Products or Licensed Services and development plans for the upcoming year. Within [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] days of receipt of such development report, Mount Sinai can request additional information and clarification and LifeMap shall provide to Mount Sinai a revised development report addressing Mount Sinai's request for additional information and clarification within [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] days of Mount Sinai's request.

	· **Records**: LifeMap will maintain, and will cause its Affiliates and Sublicensees to maintain, complete and accurate books and records to verify Net Sales, and all of the royalties, fees, and other payments payable under the definitive license Agreement. The records for each calendar quarter will be maintained for at least [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] years after the calendar quarter to which they pertain. · **Audit Rights**: Upon reasonable prior written notice to LifeMap, LifeMap and its Affiliates and Sublicensees will provide Mount Sinai and its accountants with access to all of the books and records required by the definitive license agreement to conduct a review or audit of all of the royalties, fees, and other payments payable under the definitive license agreement. Access will be made available: (a) during normal business hours; (b) in a manner reasonably designed to facilitate Mount Sinai's review or audit without unreasonable disruption to LifeMap's business; and (c) no more than once each calendar year during the term of the definitive license agreement and for a period of [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] years thereafter. LifeMap will promptly pay to Mount Sinai the amount of any underpayment determined by the review or audit plus accrued interest unless such amount is subject to a good faith dispute, which dispute shall be settled in accordance with the dispute resolution process. If the review or audit determines that LifeMap has underpaid any royalty payment by [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] percent ([*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]%) or more, then LifeMap will also promptly pay the costs and expenses of Mount Sinai and its accountants in connection with the review or audit. [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] an independent audit of all of the royalties, fees, and other payments payable under the definitive license agreement. Promptly after completion of the audit, LifeMap will provide to Mount Sinai a copy of the report of the independent auditors.

Sublicensee and Distributor	A "**Sublicensee**" shall be any third party (other than end users or Affiliates) granted the right by LifeMap to develop, use, make, sell, offer for sale, or import Licensed Products or Licensed Service or otherwise make use of, monetize, and/or exploit the Patent Rights, Mount Sinai Technical Information, Logic, LMN Components, and/or Mount Sinai Background Intellectual Property. A "**Distributor**" shall be any third party (other than end users or Affiliates) granted the right by LifeMap to distribute, sell, import or offer for sale Licensed Products or Licensed Service. For clarity, a Distributor shall **not** be granted the right by LifeMap to develop, use, or make Licensed Products or Licensed Service or otherwise make use of, monetize, and/or exploit the Patent Rights, Mount Sinai Technical Information, Logic, LMN Components, and/or Mount Sinai Background Intellectual Property. For clarity, the Parties acknowledge and agree that the term "sublicense" or "sublicense agreement," as used in the definitive license agreement, shall mean any license by and between LifeMap and a Sublicensee or Distributor under which LifeMap grants to such Sublicensee or Distributor the rights outlined above and such "sublicense" will be subject to the "Sublicensing Obligations" and the "Sublicensing Revenue", as applicable to whether such "sublicense" is to a Sublicensee or a Distributor in accordance with the terms of the definitive license agreement as outlined herein.

Sublicensing Obligations	(a) LifeMap will submit to Mount Sinai the intended sublicense agreement with a Sublicensee or Distributor as negotiated prior to execution. For the avoidance of doubt, as end users are not considered "Sublicensees" under the definitive license agreement, web, online, end user, shrinkwrap or other similar agreements (collectively "**User Agreements**") need not be provided to Mount Sinai. (b) Within [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] working days of the date LifeMap provides such intended sublicense agreement to Mount Sinai, Mount Sinai will notify LifeMap in writing of any clauses of such intended sublicense agreement that Mount Sinai can demonstrate do not comply with the definitive license agreement. All clauses that are consistent with the definitive license agreement shall be considered approved. If Mount Sinai notifies LifeMap of clauses that do not comply with the definitive license agreement, LifeMap will negotiate with the potential Sublicensee based on such notification by Mount Sinai; provided that, if LifeMap disagrees with Mount Sinai's interpretation, any such disagreement shall be resolved based upon mutual discussions, but to the extent such disagreement cannot be resolved, such dispute shall be subject to the dispute resolution provisions. If LifeMap can demonstrate that Mount Sinai properly received the draft sublicense agreement under the terms of the definitive license agreement and Mount Sinai does not provide LifeMap notice within the aforementioned term, then LifeMap may consider all clauses in the sublicense approved by Mount Sinai. Mount Sinai, however, at its sole discretion, will have the right to approve sublicenses with conditions different from those set forth in the definitive license agreement, as long as the approval is provided in writing. (c) Within [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] days after LifeMap enters into a sublicense agreement (for the avoidance of doubt, other than a User Agreement where such delivery is not necessary), LifeMap will deliver to Mount Sinai a complete and accurate copy of the entire executed sublicense agreement in the English language. If the original sublicense agreement is not in the English language, then LifeMap will provide Mount Sinai with a true certified translation copy in the English language. Mount Sinai's receipt of the sublicense agreement, however, will constitute neither an approval of the sublicense nor a waiver of any right of Mount Sinai or obligation of LifeMap under the definitive Agreement. (d) [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] (e) LifeMap's execution of a sublicense agreement will not relieve LifeMap of any of its obligations under the definitive license agreement. LifeMap is primarily liable to Mount Sinai for any act or omission of a Sublicensee or Distributor of LifeMap that would be a breach of the definitive license agreement if performed or omitted by LifeMap, and LifeMap will be deemed to be in breach of the definitive license agreement as a result of such act or omission. (f) In the event that LifeMap causes or experiences a bankruptcy or insolvency event (as shall be further defined in the definitive license agreement), all payments due to LifeMap from its Sublicensees or Distributor under the sublicense agreement will, upon notice from Mount Sinai to such Sublicensee or Distributor, become payable directly to Mount Sinai for the account of LifeMap. Upon receipt of any such funds, Mount Sinai will remit to LifeMap the amount by which such payments exceed the amounts owed by LifeMap to Mount Sinai.

Sublicensing Revenue	LifeMap will pay Mount Sinai the following percentages of all consideration, based on timing of Sublicensing, ***other*** than running royalties or an advancement payment creditable against future Net Sales ("Royalty Advance") received by LifeMap from Sublicensees, and/or Distributors, within [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] days of receipt of such consideration. Any non-cash consideration received by LifeMap from such Sublicensees and/or Distributor will be valued at its fair market value as of the date of receipt. For sublicenses to **Sublicensees**: [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] For sublicenses **Distributors**: [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] For further clarity, royalties shall be payable in accordance with the terms of the definitive license agreement for all Net Sales by a Sublicensee and/or Distributor as if it were Company. The Parties acknowledge and agree that any Royalty Advance received by Company from a Sublicensee and/or Distributor shall be subject to Company's Running Royalty obligation

Compelled Sublicensing	In the event that at any time [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] or more years after the effective date of the definitive license agreement Mount Sinai is given a written offer by an entity to license the Patent Rights or Technical Information to develop and commercialize a Licensed Product or Licensed Service in the Field of Use that is not being developed or commercialized by LifeMap (an "**Underdeveloped Indication**"), then the rights to develop such Licensed Product or Licensed Service for such Undeveloped Indication shall automatically revert to Mount Sinai unless LifeMap, within [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] days of the date Mount Sinai provides LifeMap with a written notice identifying such entity and describing in reasonable detail such written offer, either (a) offers a sublicense to such entity for such Undeveloped Indication on reasonable commercial terms; or (b) presents to Mount Sinai a credible development plan reasonably acceptable to Mount Sinai acting in good faith to pursue development of such Licensed Product for such Undeveloped Indication and begins to execute that plan.

Change of Control Fee	LifeMap will pay Mount Sinai certain percentages, as outlined below, of the then current equity value of LifeMap at the time of a Significant Transaction. The term "***Significant Transaction***" means the first to occur of a single transaction, or series of related transactions, consisting of or resulting in any of the following: (i) an assignment, other than to LifeMap Sciences, of the definitive license agreement; (ii) an initial public offering of securities by LifeMap (or its successor) or other transaction resulting in any of LifeMap's securities being traded on a nationally recognized stock exchange or automated quotation system; (iii) a sale, license or other disposition of all or substantially all of LifeMap's assets; or (iv) a reorganization, consolidation or merger of LifeMap, or sale or transfer of the securities of LifeMap, where the holders of LifeMap's outstanding voting securities before the transaction beneficially own less than fifty percent (50%) of the outstanding voting securities, or hold less than fifty percent (50%) of the voting power of the voting security holders of the surviving entity after the transaction. Notwithstanding anything above to the contrary, a Significant Transaction shall not be deemed to occur as a result of a bona fide, arm's-length equity financing for cash in which LifeMap issues securities (other than through an initial public offering described in clause (ii) above) representing more than fifty percent (50%) of the voting power of its security holders to venture capital or other similar professional investors who do not actively manage day-to-day operations of LifeMap. Payment shall be made to Mount Sinai within [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] days of such Significant Transaction. Up to five percent (5%) Change of Control Fee in exchange for the investment in LifeMap in the form of Waived Funds as provided under the co-development and option agreement where such Change of Control Fee is calculated as follows: [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] Where CoCF is the percentage due to Mount Sinai of the then equity value of LifeMap at the time of the Significant Transaction; and Where WF is the cumulative total of Waived Funds actually waived prior to the Significant Transaction, not to exceed [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] Where x is the dilution fraction. The dilution percentage will be calculated based on the total amounts invested in LifeMap to fund development of Licensed Products and based on the pre money valuations of each investment round. The Mount Sinai dilution will be equal to the dilution for the majority shareholder in the initial $[*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] investment round. The following example is used to clarify the calculation: a second investment round of $[*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] with a pre money valuation of $[*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] and a third investment round of $[*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] with a pre money valuation of $[*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] takes place. The value of "x" will then be based on $[*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]% for the second round, and a further [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]% for third round such that CoCFA will be equal to [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]%.

No Warranty	Subject to the following, the Patent Rights, Technical Information, Logic, and Background Intellectual Property are provided on an "as is" basis, and each Party makes no representations or warranties, express or implied. EXCEPT AS EXPRESSLY SET FORTH HEREIN, EACH PARTY MAKES NO WARRANTIES, EXPRESS OR IMPLIED, AS TO ANY MATTER WHATSOEVER, INCLUDING, WITHOUT LIMITATION, WARRANTIES WITH RESPECT TO THE CONDUCT, COMPLETION, SUCCESS OR PARTICULAR RESULTS, OR THE SCIENTIFIC OR COMMERCIAL VALUE OF THE DEVELOPMENT ACTIVITIES, OR THE CONDITION, OWNERSHIP, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR THE OUTCOME OF DEVELOPMENT ACTIVITIES. WITHOUT LIMITING THE FOREGOING, EACH PARTY DOES NOT GUARANTEE THAT ANY PATENT OR OTHER INTELLECTUAL PROPERTY RIGHTS SHALL RESULT FROM THE DEVELOPMENT ACTIVITIES, THAT THE SCOPE OF ANY PATENT OR OTHER INTELLECTUAL PROPERTY RIGHTS THAT MAY RESULT THEREFROM WILL COVER THE OTHER PARTY'S INTERESTS, OR THAT ANY SUCH PATENT OR OTHER INTELLECTUAL PROPERTY RIGHTS SHALL BE FREE OF DOMINANCE BY OTHER PATENTS, INCLUDING PATENTS BASED UPON INVENTIONS MADE BY OTHER INVENTORS AT SUCH PARTY INDEPENDENTLY OF THE DEVELOPMENT ACTIVITIES. EXCEPT IN THE CASE OF A BREACH OF THE FOLLOWING SENTENCE, EACH PARTY SHALL NOT BE LIABLE FOR ANY DIRECT, INDIRECT, CONSEQUENTIAL, PUNITIVE OR OTHER DAMAGES SUFFERED BY THE OTHER PARTY OR ANY OTHER PERSON RESULTING FROM THE DEVELOPMENT ACTIVITIES OR THE USE OF THE OTHER PARTY'S INTELLECTUAL PROPERTY PRODUCT. NOTWITHSTANDING THE FOREGOING, (i) EACH PARTY HERETO REPRESENTS THAT IT HAS NO ACTUAL KNOWLEDGE THAT ANY OF THE INTELLECTUAL PROPERTY RIGHTS TO BE UTILIZED HEREUNDER INFRINGE THE ACTIVITIES OF ANY THIRD PARTIES AND AGREES THAT IN UNDERTAKING THE OBLIGATIONS CONTAINED HEREIN IT SHALL NOT KNOWINGLY INFRINGE ANY SUCH THIRD PARTY INTELLECTUAL PROPERTY RIGHTS; AND (ii) MOUNT SINAI AGREES THAT IN ITS PERFORMANCE HEREUNDER IT SHALL NOT MAKE ANY CONTRIBUTIONS TO THE DEVELOPMENT ACTIVITIES THAT REQUIRE ANY MOUNT SINAI BACKGROUND INTELLECTUAL PROPERTY OR OTHER MOUNT SINAI INTELLECTUAL PROPERTY RIGHTS THAT ARE NOT LICENSED HEREUNDER.

Indemnification	LifeMap will indemnify, defend and hold harmless Mount Sinai from and against any and all liability, loss, damage, action, claim or expense that results from or arises out of: (a) the development, use, manufacture, promotion, sale or other disposition of any Licensed Products or Licensed Services by LifeMap or Sublicensees or other third parties, including end users, except as a result of, or to the extent caused by, the action or inaction of Mount Sinai; and (b) any breach by LifeMap or its Sublicensees of the definitive license agreement.
Insurance	LifeMap will procure and maintain policies of insurance, including [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission]. Each policy shall be written on an occurrence basis and shall name Mount Sinai as additional insured on a primary and non-contributory basis.
Legal Jurisdiction and Venue	The definitive license agreement shall be construed and enforced in accordance with the laws of the State of New York without regard to any choice or conflict of laws. Any suit to enforce the agreement will be brought in the federal or state courts located in the State of New York.

Non-Use of Name	Except as otherwise provided in **Article 10** of the Agreement, neither Party, nor its employees and agents will use the other Party's name, seal, logo, trademark, or service mark, or any adaptation thereof, or the name, mark, or logo of the other Party in any way, except as may be required by applicable law, without the prior written consent of the other Party whose name is to be used. If Mount Sinai uses the Developed Intellectual Property outside the Field of Use, it will give credit as appropriate regarding LifeMap's involvement in the creation of such Developed Intellectual Property.
Assignment	LifeMap may assign the definitive license agreement or substantially all of the license agreement, either directly or by merger or operation of law, without the prior written consent of Mount Sinai, as long as: (a) at least [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] days before the proposed transaction, LifeMap gives Mount Sinai written notice and such background information as may be reasonably necessary to enable Mount Sinai to give an informed consent; (b) the assignee agrees in writing to be legally bound by this Agreement; and (c) the assignee agrees to deliver to Mount Sinai an updated business development plan within [*Certain information has been omitted under a request for confidential treatment, and the omitted information has been filed with the Commission] days after the closing of the proposed transaction. Any permitted assignment will not relieve LifeMap of responsibility for performance of any obligation of LifeMap that has accrued at the time of the assignment. Any prohibited assignment will be null and void. Notwithstanding the foregoing, LifeMap shall be permitted to assign the definitive license agreement to LifeMap Sciences to the extent LifeMap and LifeMap Sciences will have fulfilled the obligations outlined under (a) and (b) above.
Global Social Responsibility	LifeMap and Mount Sinai shall take into consideration the principle of "Global Social Responsibility" when executing the full license agreement. "Global Social Responsibility" means facilitating the availability of Licensed Products in Developing Countries (*i.e.*, The World Bank's listing of "Low Income Economies") at locally affordable prices to improve access to such Licensed Products or Licensed Services in Developing Countries.
Additional Terms	Additional terms to be negotiated in good faith include, without limitation, termination, payment/interest, infringement obligations, confidentiality obligations, and miscellaneous legal provisions (independent contractor language, legal compliance, waivers, notices, severability, dispute resolution, etc.).

Attachment F

Initial Press Release

LIFEMAP SOLUTIONS EMERGES TO DEVELOP BIG DATA-POWERED MOBILE HEALTH PRODUCTS

LifeMap Solutions Partners with Icahn School of Medicine at Mount Sinai; Leadership Team Includes Deep Biotech and Silicon Valley Experience

ALAMEDA, CA - May XX, 2014 – LifeMap Solutions, Inc., a medical technology startup focused on creating innovative mobile health (mHealth) products and services powered by big data, today announced an initial $5 million seed round led by parent company LifeMap Sciences, Inc., a subsidiary of BioTime, Inc., with additional participation via in-kind support from its development partner, the Icahn School of Medicine at Mount Sinai.

Corey Bridges, a Silicon Valley veteran, will serve as LifeMap Solutions' Chief Executive Officer. Over the past two decades, Bridges has overseen the market introductions of several innovative technology companies, including Netflix, Zone Labs, and The Multiverse Network. A pre-IPO employee at Netscape, he launched several ground-breaking Internet products internationally, and years later launched James Cameron's CAMERON | PACE Group in China and Europe.
"In the mid-nineties, we saw the intersection of breakthrough technologies and cultural readiness that took the Internet into the mainstream and changed the world," Bridges said. "A similar intersection of technology and culture is happening now with personal health and big data, where the impact on society may be as profound and as far-reaching as the Internet has been to the world."

David Warshawsky, Ph.D., Chief Executive Officer of parent company LifeMap Sciences, and cofounder of LifeMap Solutions with Bridges, brings with him more than 20 years of experience in cutting-edge research, development, implementation, and leadership in biotech, pharmaceutical, and bioinformatics industries. "The medical technology industry is evolving at a faster pace than anyone predicted even five years ago," Warshawsky said. "These exciting times translate into massive opportunities for innovation. In the years ahead, we intend to apply our industry's best practices and LifeMap's key proprietary technology toward creating mHealth products and services that will serve a range of markets."

Strategic Partnership

LifeMap Solutions is working directly with research scientists at the Icahn School of Medicine at Mount Sinai to develop its technology. As part of the partnership, Mount Sinai's Eric Schadt, Ph.D. – founding director of the Icahn Institute for Genomics and Multiscale Biology – will lend his research experience and technical expertise to LifeMap Solutions as the newly formed company's leading science advisor. Dr. Schadt is an expert on the generation and integration of very large-scale sequence variation, molecular profiling and clinical data in disease populations for constructing molecular networks that define disease states and link molecular biology to physiology.

Core members of the LifeMap Solutions team will work closely with Mount Sinai's world-class research scientists and development personnel. Dr. Schadt said of the partnership, "We're excited to combine Mount Sinai's scientific expertise with LifeMap Solutions' ability to build mobile health application products and services to help people lead healthier lives and contribute to medical research." The details of the partnership were managed by Mount Sinai Innovation Partners, which facilitates the real-world application and commercialization of Mount Sinai discoveries and the development of research partnerships with industry.

About LifeMap Solutions, Inc.

LifeMap Solutions is developing innovative mobile health technology in partnership with the Icahn Institute for Genomics and Multiscale Biology at the Icahn School of Medicine at Mount Sinai. LifeMap Solutions was established in association with LifeMap Sciences, Inc., a BioTime, Inc. subsidiary that is developing an integrated resource for biomedical and stem cell research. LifeMap Solutions is headquartered in Alameda, California.

For more information, please visit
www.lifemap-solutions.com.

About BioTime, Inc.
BioTime is a biotechnology company engaged in research and product development in the field of regenerative medicine. Its broad platform of stem cell technologies is enhanced through subsidiaries focused on specific fields of application. BioTime's focus is on pluripotent stem cell technology based on human embryonic stem ("hES") cells and induced pluripotent stem ("iPS") cells. hES and iPS cells provide a means of manufacturing every cell type in the human body and therefore show considerable promise for the development of a number of new therapeutic products. BioTime was incorporated in the state of California in 1990 and is a publicly traded company listed on the NYSE MKT stock exchange. The company is headquartered in Alameda, California, with operations in Singapore, China, and Israel.

For more information, please see www.biotimeinc.com.

FORWARD-LOOKING STATEMENTS

Statements pertaining to future financial and/or operating results, future growth in research, technology, clinical development, and potential opportunities for BioTime and its subsidiaries, along with other statements about the future expectations, beliefs, goals, plans, or prospects expressed by management constitute forward-looking statements. Any statements that are not historical fact (including, but not limited to statements that contain words such as “will,” “believes,” “plans,” “anticipates,” “expects,” “estimates”) should also be considered to be forward-looking statements. Forward-looking statements involve risks and uncertainties, including, without limitation, risks inherent in the development and/or commercialization of potential products, uncertainty in the results of clinical trials or regulatory approvals, need and ability to obtain future capital, and maintenance of intellectual property rights. Actual results may differ materially from the results anticipated in these forward-looking statements and as such should be evaluated together with the many uncertainties that affect the business of BioTime and its subsidiaries, particularly those mentioned in the cautionary statements found in BioTime's Securities and Exchange Commission filings. BioTime disclaims any intent or obligation to update these forward-looking statements.

LIFEMAP SOLUTIONS, INC. TO DEVELOP MOBILE HEALTH PRODUCTS WITH MOUNT SINAI'S ICAHN SCHOOL OF MEDICINE

ALAMEDA , CA – May XX, 2014 –BioTime, Inc. (NYSE MKT: BTX), announced today that its subsidiary LifeMap Sciences, Inc., a technology leader in online biomedical information, has created LifeMap Solutions, Inc., a medical technology startup focused on creating innovative mobile health (mHealth) products and services powered by biomedical and other personal big data. The initial planned product is envisioned to provide information based on interpretations of one or more components of clinical data and other information of individuals, including genetic information if provided, relating to human disease, health or wellness. LifeMap Solutions will collaborate with the Icahn School of Medicine at Mount Sinai to develop the new personal mHealth products. While detailed product plans were not revealed at this time, the company disclosed that the planned products are interactive mobile applications that will connect users with their complex personal health information and other big data. LifeMap Solutions will co-locate core members of its product development team within Mount Sinai to work alongside research and development personnel led by Dr. Eric Schadt, Director of the Icahn Institute for Genomics and Multiscale Biology at Mount Sinai. The primary focus of Mount Sinai in the product development collaboration will relate to the development of a software engine. LifeMap Solutions will be responsible for developing the entire technology platform, including server and client components. However, both parties will participate in the planning and development of all aspects of the integrated software system.

The initial financing tranche for LifeMap Solutions will be provided to LifeMap Sciences by BioTime through the purchase of additional shares of LifeMap Sciences common stock. BioTime may acquire additional LifeMap Sciences common stock for cash or in exchange for BioTime common shares when product development milestones are met and if funding is not provided through other sources. Additionally, Mount Sinai will defray a portion of the initial development cost of the project by providing services of its personnel and use of its facilities at a reduced cost.

"The creation of LifeMap Solutions represents a strategic step along BioTime's path towards extending LifeMap's leadership in online genomic and medical information," said Dr. Michael West, CEO of BioTime. "We share with Dr. Schadt a vision of new products and services designed to markedly enhance the public's access to big data and to improve quality of life."

Corey Bridges, a Silicon Valley veteran, will serve as LifeMap Solutions' Chief Executive Officer. Over the past two decades, Mr. Bridges has overseen the market introductions of several innovative technology companies, including Netflix, Inc., Zone Labs, and The Multiverse Network, Inc. A pre-IPO employee at Netscape, he launched several ground-breaking Internet products internationally, and years later launched James Cameron's CAMERON | PACE Group in China and Europe.

About BioTime, Inc.

BioTime is a biotechnology company engaged in research and product development in the field of regenerative medicine. Regenerative medicine refers to therapies based on stem cell technology that are designed to rebuild cell and tissue function lost due to degenerative disease or injury. BioTime's focus is on pluripotent stem cell technology based on human embryonic stem ("hES") cells and induced pluripotent stem ("iPS") cells. hES and iPS cells provide a means of manufacturing every cell type in the human body and therefore show considerable promise for the development of a number of new therapeutic products. BioTime's therapeutic and research products include a wide array of proprietary *PureStem*® progenitors, *HyStem*® hydrogels, culture media, and differentiation kits. BioTime is developing *Renevia*™ (a *HyStem*® product) as a biocompatible, implantable hyaluronan and collagen-based matrix for cell delivery in human clinical applications. In addition, BioTime has developed *Hextend*®, a blood plasma volume expander for use in surgery, emergency trauma treatment and other applications. *Hextend*® is manufactured and distributed in the U.S. by Hospira, Inc. and in South Korea by CJ CheilJedang Corporation under exclusive licensing agreements. BioTime is also developing stem cell and other products for research, therapeutic, and diagnostic use through its subsidiaries:

• Asterias Biotherapeutics, Inc. is a new subsidiary which has acquired the stem cell assets of Geron Corporation, including patents and other intellectual property, biological materials, reagents and equipment for the development of new therapeutic products for regenerative medicine.

• OncoCyte Corporation is developing products and technologies to diagnose and treat cancer.

• Cell Cure Neurosciences Ltd. ("Cell Cure Neurosciences") is an Israel-based biotechnology company focused on developing stem cell-based therapies for retinal and neurological disorders, including the development of retinal pigment epithelial cells for the treatment of macular degeneration, and treatments for multiple sclerosis.

• LifeMap Sciences, Inc. ("LifeMap Sciences") markets, sells and distributes *GeneCards*®, the leading human gene database, as part of an integrated database suite that also includes the *LifeMap Discovery*® database of embryonic development, stem cell research and regenerative medicine, and *MalaCards*, the human disease database.

• ES Cell International Pte Ltd., a Singapore private limited company, developed clinical and research grade hES cell lines and plans to market those cell lines and other BioTime research products in over-seas markets as part of BioTime's ESI BIO Division.

• BioTime Asia, Limited, a Hong Kong company, may offer and sell products for research use for BioTime's ESI BIO Division.

• OrthoCyte Corporation is developing therapies to treat orthopedic disorders, diseases and injuries.

• ReCyte Therapeutics, Inc. is developing therapies to treat a variety of cardiovascular and related ischemic disorders, as well as products for research using cell reprogramming technology.

Additional information about BioTime can be found on the web at *www.biotimeinc.com.*

About LifeMap Sciences, Inc.

LifeMap Sciences' (www.lifemapsc.com) core technology and business is based on its Integrated Biomedical Knowledgebase and discovery platform for biomedical research, which currently includes *GeneCards*®, the leading human gene database; *LifeMap Discovery*®, the database of embryonic development, stem cell research and regenerative medicine; and *MalaCards*, the human disease database. LifeMap's products are used in many institutions including academia, research hospitals, patent offices, and leading biotechnology and pharmaceutical companies. In addition to its currently marketed products, LifeMap is pursuing several new internet and informatics products with substantial rapid revenue growth potential, leveraging its existing products and their large user base.

About LifeMap Solutions, Inc.

LifeMap Solutions is developing innovative mobile health technology in partnership with the Icahn Institute for Genomics and Multiscale Biology, which is located within the Icahn School of Medicine at Mount Sinai. LifeMap Solutions is a subsidiary of LifeMap Sciences, Inc., a subsidiary of BioTime, Inc. that is developing an integrated resource for biomedical and stem cell research. LifeMap Solutions is headquartered in Alameda, California. For more information, please visit www.lifemap-solutions.com.

FORWARD-LOOKING STATEMENTS
Statements pertaining to future financial and/or operating results, future growth in research, technology, clinical development, and potential opportunities for BioTime and its subsidiaries, along with other statements about the future expectations, beliefs, goals, plans, or prospects expressed by management constitute forward-looking statements. Any statements that are not historical fact (including, but not limited to statements that contain words such as "will," "believes," "plans," "anticipates," "expects," "estimates") should also be considered to be forward-looking statements. Forward-looking statements involve risks and uncertainties, including, without limitation, risks inherent in the development and/or commercialization of potential products, uncertainty in the results of clinical trials or regulatory approvals, need and ability to obtain future capital, and maintenance of intellectual property rights. Actual results may differ materially from the results anticipated in these forward-looking statements and as such should be evaluated together with the many uncertainties that affect the business of BioTime and its subsidiaries, particularly those mentioned in the cautionary statements found in BioTime's Securities and Exchange Commission filings. BioTime disclaims any intent or obligation to update these forward-looking statements.

To receive ongoing BioTime corporate communications, please click on the following link to join our email alert list: http://news.biotimeinc.com

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EXHIBIT B

BioTime Option

1. Purchase and Sale of Shares.

(a) BioTime hereby agrees to purchase, and the Company agrees to issue and sell to BioTime, Nine Million Five Hundred Thousand (9,500,000) shares of Company common stock, no par value ("Shares"), at the price of $2.00 per Share (the "Purchase Price").

(b) The Shares will be issued and sold in two tranches (each an "Option Tranche"), as follows: (i) the first Option Tranche consisting of 4,500,000 Shares shall be sold upon satisfaction of the First Option Tranche Conditions and upon BioTime's receipt of written certification from the President of the Company to BioTime that the First Tranche Conditions have been satisfied; and (ii) the second Option Tranche consisting of 5,000,000 Shares shall be sold upon satisfaction of the Second Option Tranche Conditions and upon BioTime's receipt of written certification from the President of the Company to BioTime that the Second Tranche Conditions have been satisfied.

(c) The First Option Tranche Conditions are: (i) the exercise of the option under Section 7 of the Navigator Agreement by LifeMap Solutions and the execution of a definitive license agreement by Mt. Sinai in favor of LifeMap Solutions as contemplated by the Navigator Agreement, including Attachment E thereto and in form and substance approved by BioTime (the "License Agreement"); (ii) attainment of the prototype of the LifeMap Solutions product milestone in all respects, and by the date required, in the License Agreement and Attachment E of the Navigator Agreement; (iii) the License Agreement being in full force and effect; and (iv) each of Mt. Sinai and LifeMap Solutions shall have performed all of their respective obligations and agreements under the License Agreement to be performed on or before the date of the sale of the first Option Tranche of Shares, and no party to the License Agreement shall have given the other party any notice of termination of the License Agreement or asserting a breach or default by the other party under the License Agreement. The Second Option Tranche Conditions are: (i) attainment of the beta version of the LifeMap Solutions product milestone in all respects, and by the date required, under the License Agreement and Attachment E of the Navigator Agreement; (ii) the License Agreement being in full force and effect; and (iii) each of Mt. Sinai and LifeMap Solutions shall have performed all of their respective obligations and agreements under the License Agreement to be performed on or before the date of the sale of the second Option Tranche of Shares, and no party to the License Agreement shall have given the other party any notice of termination of the License Agreement or asserting a breach or default by the other party under the License Agreement.

(d) The Company shall give BioTime written notice of the expected date for the sale of the second Option Tranche of Shares, which notice shall be delivered to BioTime not more than twenty and not less than ten business days prior to the date of sale of the Shares in the second Option Tranche.

(e) Payment of the Purchase Price shall be in cash, in BioTime common shares, or in a combination of cash and BioTime common shares as BioTime may determine with respect to each of the first and second Option Tranches.

(i) Payment of the Purchase Price for the first Option Tranche of Shares may be made in up to three equal installments as follows: (A) payment of the first installment shall be due five (5) business days after BioTime delivers to LifeMap the notice exercising the option; (B) payment of the second installment shall be due sixty (60) days after payment of the first installment was due; and (C) payment of the third installment shall be due sixty (60) days after payment of the second installment was due.

(ii) Payment of the Purchase Price for the second Option Tranche of Shares may be made in up to three equal installments as follows: (A) payment of the first installment shall be due five (5) business days after the Second Option Tranche Conditions have been met; (B) payment of the second installment shall be due sixty (60) days after payment of the first installment was due; and (C) payment of the third installment shall be due sixty (60) days after payment of the second installment was due.

(f) Payment of the Purchase Price for any Option Tranche of Shares shall be made against delivery to BioTime of stock certificates evidencing the Shares duly executed by the Company. All Shares shall be, when issued and sold pursuant to this Agreement, duly authorized, legally and validly issued, fully paid, and non-assessable.

(g) If BioTime elects to pay the Purchase Price in whole or in part in BioTime common shares, the number of BioTime common shares that BioTime shall deliver to the Company as such payment shall be equal to the Purchase Price to be paid in BioTime common shares divided by the Average Price. Delivery of BioTime common shares may be in certificated form or by book entry in the records of the transfer agent and registrar of the BioTime common shares. The Average Price shall be the volume weighted average per share closing price, rounded to two decimal points, of BioTime common share on the Principal Market for the twenty (20) Trading Days ending three Trading Days prior to the date of payment of the Purchase Price for the applicable Option Tranche; provided, that if no closing price is determined on the Principal Market, then the Average Price shall be determined with respect to the average between the high bid and high asked prices quoted on the applicable Principal Market for such Trading Days. The Principal Market shall mean (i) the principal national securities exchange on which BioTime common shares trade, or (ii) the OTC Bulletin Board if the common shares are traded on the OTC Bulletin Board but not on a national securities exchange. A Trading Day shall be a day on which the BioTime common shares are traded on the Principal Market, provided, that a Trading Day shall not include a day on which the Principal Market is open for trading for a period of less than 4.5 hours.

(h) The right and obligation of BioTime to purchase Shares in any Option Tranche shall be reduced to the extent that the Company or LifeMap Solutions raises debt or equity financing from sources other than BioTime for the LifeMap Solutions project ("Other Funding"). The reduced number of Shares to be sold in any Option Tranche shall be equal to (A) the dollar amount of Shares to be purchased in the Option Tranche minus the amount of Other Funding received since the sale of Shares in the previous Option Tranche, divided by (B) $2 per Share. By way of example only, if prior to the funding of the first Option Tranche, the Company or LifeMap Solutions raises $5,000,000 of equity capital for the LifeMap Solutions project, the number of Shares that BioTime may purchase in the first Option Tranche shall be 2,000,000 Shares [$(9,000,000 - $5,000,0000) ÷ $2].

2. Additional Use of Proceeds Covenant. The Company shall use the Purchase Price, including cash proceeds from the sale of any BioTime common shares received as payment of any portion of the Purchase Price, solely for investment in LifeMap Solutions for the purpose of performing LifeMap Solutions' obligations under the Navigator Agreement and the License Agreement, and for commercializing the LifeMap Solutions product. However, if BioTime elects to advance any funds to the Company or LifeMap Solutions in connection with any delay on the part of the Company in selling any BioTime common shares received as part of the Purchase Price, the Company will promptly remit to BioTime the net cash proceeds from the subsequent sale of BioTime common shares until funds advanced by BioTime have been repaid with interest at such rate as to which BioTime and the Company or LifeMap Solutions may agree.

3. Registration and Sale of BioTime Common Shares.

(a) Unless the BioTime common shares delivered as payment of the Purchase Price are registered for sale by the Company under the Securities Act when issued, BioTime shall, prior to the date delivery of the BioTime common shares is due, use reasonable efforts to file and cause to become effect a registration statement under the Securities Act permitting the sale of such BioTime common shares by the Company, and in either case BioTime shall use commercially reasonable efforts to prepare and file such periodic reports under the Securities Exchange Act of 1934, as amended, or such post-effective amendments to the registration statement or amended prospectuses under the Securities Act as may be necessary to permit the sale of the BioTime common shares by the Company.

(b) Company shall trade all BioTime common shares through a registered securities broker-dealer designated by BioTime (the "Broker"). BioTime has appointed Cantor Fitzgerald & Co. (“Cantor”) to act as the Broker to effect trades of BioTime common shares on behalf of BioTime and all of its subsidiaries who hold freely tradable BioTime common shares (the "BioTime Group"), and the Company will open an account with and sell its BioTime common shares through Cantor. BioTime may determine at any time to designate a registered broker-dealer other than Cantor to act as Broker, in which case the Company will open an account with and sell its BioTime common shares through the new Broker designated by BioTime. If LifeMap Solutions acquires any BioTime common shares, the Company will cause LifeMap solutions to open an account with and sell those BioTime common shares through the Broker. All determinations to sell BioTime common shares by the Company or LifeMap Solutions shall be made by the Board of Directors or a committee of the Board of Directors of the Company, and shall be communicated in writing to and coordinated with BioTime and the Broker by the Company through the Company’s President or Chief Financial Officer. The Company acknowledges that if the Broker receives requests to sell BioTime common shares from any member of the BioTime Group while any request to sell BioTime common shares by any other member(s) of the BioTime Group remains open, the Broker may allocate among the members of the BioTime Group seeking to sell shares the number of shares that may offered and sold during any trading day, so as to maintain an orderly market for the BioTime common shares. Such allocation shall be pro rata based on the number of shares that each member of the BioTime Group requests the Broker to sell for its account.

4. Additional Termination Provisions. BioTime shall have the additional right to terminate this Agreement by notice to the Company at any time upon the occurrence of any of the following events:

(a) The failure of the prototype of the LifeMap Solutions product to be completed (and accepted by Mt Sinai if such acceptance is required by the License Agreement for the attainment of any milestone) within the time specified in the License Agreement;

(b) The failure of the beta version of the LifeMap Solutions product to be completed (and accepted by Mt Sinai if such acceptance is required by the License Agreement for the attainment of any milestone) within the time specified in the License Agreement;

(c) The Company, LifeMap Solutions, or BioTime determining that the proceeds from the sale of the Shares, including expected proceeds from the sale of any BioTime common shares issued as payment of the Purchase Price, plus any Other Funding obtained by the Company or LifeMap Solutions, are not or will not be sufficient to finance the completion and commercial launch of the LifeMap Solutions product;

(d) The Company, LifeMap Solutions, or BioTime determining that the completion of the LifeMap Solutions product is not technically feasible; or

(e) The Company, LifeMap Solutions, or BioTime determining that there has been an adverse change in the commercial prospects for the LifeMap Solutions product or that the LifeMap Solutions product is not commercially viable.

5. Consequence of Termination. If this Agreement is terminated and the Company or LifeMap Solutions then holds any BioTime common shares or any cash proceeds from the sale of the Shares or from the sale of BioTime common shares issued in payment of the Purchase Price, BioTime shall have the right to tender to the Company Shares acquired under this Agreement and to require the Company to purchase such Shares for the Purchase Price, to the fullest extent permitted under Sections 500 and 501 of the California Corporations Code. The Company shall purchase Shares tendered by BioTime by paying cash or by returning BioTime common shares issued in payment of the Purchase Price or by delivering to BioTime a combination of cash and BioTime common shares; provided, that the Company shall not sell BioTime common shares for the purpose of acquiring cash to purchase Shares. If cash or BioTime common shares needed to purchase Shares are then held by LifeMap Solutions, the Company shall cause LifeMap Solutions to provide such cash and/or BioTime common shares to the Company, including through the redemption or repurchase of LifeMap Solutions capital stock if necessary.

6. Change of Control Transactions. In the event that a Change of Control Transaction occurs with respect to either the Company or LifeMap Solutions, this Agreement shall remain in effect but in addition to its other rights under this Agreement, BioTime shall have the right to accelerate the purchase of the Shares, in whole or in part, by (a) giving the Company or its successor in interest written notice of such exercise and the number of Shares being purchased, and (b) paying the Purchase Price for the Shares purchased not later than ten (10) business days after BioTime receives notice of the consummation of the Change of Control Transaction from the Company or its successor in interest. The Company shall give BioTime written notice of any Change of Control Transaction with respect to the Company or LifeMap Solutions not later than twenty (20) business days prior to the date on which the Change of Control Transaction is scheduled to be consummated. "Change of Control Transaction means" with respect to the Company or LifeMap Solutions, as the case may be (the "Target Company"), (i) a merger or consolidation of the Target Company with or into another corporation or other business entity resulting in the shareholders of the Target Company immediately before the transaction no longer owning voting securities of the Target Company or its successor in interest entitling them to elect a majority of the members of the board of directors of the Target Company or its successor in interest, (ii) a sale or exchange of a majority of the outstanding shares of common stock of the Target Company for shares of equity or debt securities of another corporation or other business entity, cash, or other property, or (iii) a sale, exchange, or other transfer of all or substantially all of the assets of the Target Company. If BioTime exercises its option after the consummation of a Change of Control Transaction in which the Company is the Target Company, BioTime shall receive the number and kind of securities, cash, or other property that BioTime would have received in the Change of Control Transaction had BioTime exercised its option and held the Shares immediately before the consummation of the Change of Control Transaction. This Agreement shall survive any Change of Control Transaction.

Exhibit 10.3

STOCK PURCHASE AGREEMENT

ASTERIAS BIOTHERAPEUTICS, INC.

READ THIS AGREEMENT CAREFULLY BEFORE YOU INVEST

The shares of Series B Common Stock, par value $0.0001 per shares ("Shares"), have not been registered under the Securities Act of 1933, as amended, or applicable state securities laws and may not be offered for sale, sold, transferred, pledged or hypothecated to any person in the absence of an effective registration statement covering such Shares (or an exemption from such registration) and an opinion of counsel satisfactory to Asterias Biotherapeutics, Inc. to the effect that such transfer or exercise complies with applicable securities laws.

STOCK PURCHASE AGREEMENT

This Stock Purchase Agreement ("Agreement") is entered into by Pedro Lichtinger ("Purchaser") and Asterias Biotherapeutics, Inc., a Delaware corporation (the "Company).

1. Purchase and Sale of Shares.

(a) Purchaser hereby irrevocably agree to purchase, and the Company agrees to sell to Purchaser, Two Hundred Thousand (200,000) shares of Company Series B Common Stock, par value $0,0001 per share ("Shares"), at the price of $2.34 per Share.

(b) This Agreement will become an irrevocable obligation of Purchaser to purchase the number of Shares specified in paragraph (a) of this Section 1, at the price of $2.34 per Share, when a copy of this Agreement, signed by Purchaser, is countersigned by the Company. Purchaser shall pay the purchase price of the Shares by check for good funds payable to the order of the Company or by wire transfer to such account of the Company as the Company may specify. If this Agreement is rejected or not accepted for any reason by the Company, all sums paid by the Purchaser will be promptly returned, without interest or deduction.

2. Investment Representations. Purchaser represents and warrants to the Company that:

(a) Purchaser has made such investigation of the Company as Purchaser deemed appropriate for determining to acquire (and thereby make an investment in) the Shares. In making such investigation, Purchaser has had access to such financial and other information concerning the Company as Purchaser requested. Purchaser acknowledges and understands that the Company is an early stage venture with only a limited history of operations, and has received only limited capital. Purchaser acknowledges receipt of, or has access to: (i) the Company's Annual Report on Form 10-K for the year ended December 31, 2013, Quarterly Report on Form 10-Q for the three months ended March 31, 2014, and each Current Report on Form 8-K filed by the Company under the Securities and Exchange Act of 1934, as amended the "Exchange Act"), since January 1, 2014; (ii) a copy of the Amended and Restated Certificate of Incorporation and Bylaws of the Company; (iii) copies of such minutes of the proceedings of the Board of Directors of the Company as Purchaser may have requested from the Company. Purchaser has had a reasonable opportunity to ask questions of and receive answers from the executive officers of the Company concerning the Company, and to obtain such additional information concerning the Company as may have been possessed or obtainable by the Company without unreasonable effort or expense. All such questions have been answered to Purchaser's satisfaction.

(b) Purchaser understands that the Shares are being offered and sold without registration under the Securities Act of 1933, as amended (the "Act"), or qualification under the California Corporate Securities Law of 1968, or under the laws of any other states, in reliance upon the exemptions from such registration and qualification requirements for non-public offerings. Purchaser acknowledges and understands that the availability of the aforesaid exemptions depends in part upon the accuracy of certain of the representations, declarations and warranties made by Purchaser, and the information provided by Purchaser, in this Agreement, Purchaser is making such representations, declarations and warranties, and is providing such information, with the intent that the same may be relied upon by the Company and its officers and directors in determining Purchaser's suitability to acquire the Shares. Purchaser understands and acknowledges that no federal, state or other agency has reviewed or endorsed the offering of the Shares or made any finding or determination as to the fairness of the offering or completeness of the information provided to Purchaser by the Company.

(c) Purchaser understands that the Shares may not be offered, sold, or transferred in any manner unless subsequently registered under the Act, or unless there is an exemption from such registration available for such offer, sale or transfer.

(d) Purchaser has such knowledge and experience in financial and business matters to enable Purchaser to utilize the information provided or otherwise made available to Purchaser by the Company to evaluate the merits and risks of an investment in the Shares and to make an informed investment decision.

(e) Purchaser is acquiring the Shares solely for Purchaser's own account and for investment purposes, and not with a view to, or for sale in connection with, any distribution of the Shares other than pursuant to an effective registration statement under the Act or unless there is an exemption from such registration available for such offer, sale or transfer, such as SEC Rule 144.

(f) Purchaser is an "accredited investor," as such term is defined in Regulation D promulgated under the Act.

(g) Information provided to Purchaser by the Company include matters that may be considered "forward looking" statements within the meaning of Section 27(a) of the Act and Section 21(e) of the Exchange Act, which statements Purchaser acknowledges and agrees are not guarantees of future performance and involve a number of risks and uncertainties, and with respect to which the Company makes no representations or warranties. Purchaser understands that the level of disclosure provided by the Company is less than that which would be provided in a securities offering registered under the Act in reliance on the sophistication and investment experience of Purchaser.

3. Accredited Investor Qualification. Purchaser represents that Purchaser qualifies as an "accredited investor" under Regulation D, promulgated under the Act, in the following manner. (Please check or initial all that apply to verify that you qualify as an "accredited investor.")

X (a) Purchaser is a natural person whose net worth, or joint net worth with spouse, at the date of purchase exceeds $1,000,000 (not including the value of Purchaser's principal residence and excluding mortgage debt secured by Purchaser's principal residence up to the estimated fair market value of the home, except that any mortgage debt incurred by you within 60 days prior to the date of this Agreement shall not be excluded from the determination of your net worth unless such mortgage debt was incurred to acquire the residence).

X (b) Purchaser is a natural person whose individual gross income (excluding that of spouse) exceeded $200,000 in each of the past two calendar years, and who reasonably expects individual gross income exceeding $200,000 in the current calendar year.

X (c) Purchaser is a natural person whose joint gross income with spouse exceeded $300,000 in each of the past two calendar years, and who reasonably expects joint gross income with spouse exceeding $300,000 in the current calendar year.

X (d) Purchaser is an executive officer of the Company.

4. Miscellaneous.

(a) This Agreement shall be governed by, interpreted, construed and enforced in accordance with the laws of the State of California, as such laws are applied to contracts by and among residents of California, and which are to be performed wholly within California.

(b) The representations and warranties set forth herein shall survive the sale of Shares to Purchaser.

(c) Neither this Agreement nor any provisions hereof shall be modified, discharged or terminated except by an instrument in writing signed by the party against whom any waiver, change, discharge or termination is sought.

(d) Any notice, demand or other communication that any party hereto may be required, or may elect, to give shall be sufficiently given if (i) deposited, postage prepaid, in the United States mail addressed to such address as may be specified under this Agreement, (ii) delivered personally at such address, (iii) delivered to such address by air courier delivery service, or (iv) delivered by electronic mail (email) to such electronic mail address as may be specified under this Agreement. The address for notice to the Company is: 230 Constitution Drive, Menlo Park, California 94025, attention: Chief Financial Officer; email; rpeabody@biotimemail.com. The address for notice of Purchaser is shown in Section 5. Either party may change its address for notice by giving the other party notice of a new address in the manner provided in this Agreement. Any notice sent by mail shall be deemed given three days after being deposited in the United States mail, postage paid, and addressed as provided in this Agreement.

(e) This Agreement may be executed through the use of separate signature pages or in any number of counterparts, and each of such counterparts shall, for all purposes, constitute one agreement binding on all the parties, notwithstanding that all parties are not signatories to the same counterpart.

(f) Except as otherwise provided herein, the Agreement shall be binding upon and inure to the benefit of the parties and their heirs, executors, administrators, successors, legal representatives and assigns. If the undersigned is more than one person, the obligation of the undersigned shall be joint and several and the agreements, representations, warranties and acknowledgments herein contained shall be deemed to be made by and be binding upon each such person and his heirs, executors, administrators and successors.

(g) This instrument contains the entire agreement of the parties, and there are no representations, covenants or other agreements except for those stated or referred to herein.

(h) This Agreement is not transferable or assignable by the undersigned.

5. Purchaser Information.

(a) Address: _____

(b) email: _____

(c) Telephone: (_____)_____

(d) Social Security Number: _____
or Taxpayer Identification Number: _____

(e) State of Residence_____

WITNESS WHEREOF, the undersigned has entered into this Agreement and hereby agrees to purchase Shares for the price stated above and upon the terms and conditions set forth herein.

Dated: June 12, 2014

s/Pedro Lichtinger
Pedro Lichtinger

ACCEPTANCE BY COMPANY

The Company hereby agrees to sell to the Purchaser the Shares referenced above in reliance upon all the representations, warranties, terms and conditions contained in this Agreement.

IN WITNESS WHEREOF, the undersigned, on behalf of the Company, has executed this acceptance as of the date set forth below.

Dated: June 12, 2014

ASTERIAS BIOTHERAPEUTICS, INC.

By: R.W. Peabody

Title: Chief Financial Officer

Exhibit 10.4

PURCHASE AGREEMENT

ASTERIAS BIOTHERAPEUTICS, INC.

1,000,000 BioTime Inc. Common Shares
with
1,000,000 Asterias Series B Common Stock Purchase Warrants

Total Purchase Price $2,500,000

READ THIS AGREEMENT CAREFULLY BEFORE YOU INVEST

The Asterias Common Stock Purchase Warrants ("Warrants"), and the shares of Asterias Series B Common Stock issuable upon the exercise of the Warrants ("Warrant Shares") have not been registered under the Securities Act of 1933, as amended, or applicable state securities laws and may not be offered for sale, sold, transferred, pledged or hypothecated to any person, and the Warrants may not be exercised, in the absence of an effective registration statement covering such securities (or an exemption from such registration) and an opinion of counsel satisfactory to Asterias Biotherapeutics, Inc. to the effect that such transfer complies with applicable securities laws.

PURCHASE AGREEMENT

This Agreement is entered into by Broadwood Partners, L.P. ("Purchaser") and Asterias Biotherapeutics, Inc., a Delaware corporation (the "Company).

1. Purchase and Sale of Shares with Warrants.

(a) Purchaser hereby irrevocably agrees to purchase, and the Company hereby irrevocably agrees to sell to Purchaser, 1,000,000 common shares, no par value, of BioTime, Inc., ("Shares") for a total purchase price of Two Million Five Hundred Thousand Dollars ($2,500,000). In addition to the Shares, Purchaser will receive warrants to purchase 1,000,000 shares of Series B Common Stock of the Company ("Warrants"). The Warrants will entitle the holder to purchase, on the terms and conditions set forth in the Warrant Agreement governing the Warrant, shares of Series B Common Stock, par value $0.0001 of the Company ("Warrant Shares") for $2.34 per Warrant Share (the "Warrant Price"), subject to adjustment as provided in the Warrant Agreement a copy of which is attached as Exhibit A (the "Warrant Agreement").

2. Closing. The consummation of the sale of the Shares with Warrants ("Closing") will take place no later than the second business day after the Company delivers to Purchaser a countersigned signature page copy of this Agreement (the "Closing Date").

(a) On the Closing Date, Purchaser shall purchase all 1,000,000 Shares with 1,000,000 Warrants and shall pay to the Company, by wire transfer to an account designated by the Company, the full purchase price of $2,500,000. On the Closing Date, the Company will issue to the Purchaser the 1,000,000 Shares purchased and 1,000,000 Warrants.

(b) The issue of the Shares purchased may be, at the election of the Company, by book entry of such Shares purchased, in the name of the Purchaser, on the records of the transfer agent of the Shares or by a stock certificate in the name of the Purchaser for the number of Shares purchased. The Warrants shall be sent to the Purchaser by next business day delivery service or certified mail within two business days after the Closing Date, along with a copy of the Warrant Agreement governing the Warrants executed by the Company.

(c) The Closing shall be subject to the following conditions:

(i) The representations and warranties of the Company contained in this Agreement shall be true and correct in all material respects on the date of the Closing, and the Company shall have complied in all material respects with its covenants required to have been performed as of the date of Closing; and

(ii) No litigation or other proceeding of any kind to enjoin, delay, prohibit or restrict the consummation of the sale of the Shares with Warrants under this Agreement shall be pending, and there shall be no judgment, order or writ of any court or government authority in effect prohibiting or restricting the consummation of the of the sale of the Shares with Warrants under this Agreement.

3. Registration Rights. Concurrently with the execution and delivery of this Agreement, Purchaser and the Company shall enter into a Registration Rights Agreement in the form of Exhibit B, pursuant to which the Company is agreeing to register the Warrants and the Warrant Shares under the Securities Act of 1933, as amended (the "Act").

4. Lock-Up Agreement. In order to induce the Company to enter into this Agreement and to sell to Purchaser the Shares with Warrants pursuant to this Agreement, Purchaser agrees that for a period of 275 days commencing on the Closing Date, Purchaser shall not, without the prior written consent of the Company or BioTime, (i) offer, sell, contract to sell, pledge or otherwise dispose of any of the Shares, or (ii) enter into any transaction which is designed to, or might reasonably be expected to, result in the disposition of any of the Shares, whether by actual disposition or effective economic disposition due to cash settlement or otherwise, by Purchaser or any affiliate of Purchaser or any person in privity with Purchaser or any affiliate of Purchaser. The foregoing prohibition on the disposition of the Shares shall also prohibit the filing (or participation in the filing) of a registration statement with the Securities and Exchange Commission in respect of, or establishing or increasing a put equivalent position or liquidate or decrease a call equivalent position within the meaning of Section 16 of the Securities Exchange Act of 1934, as amended, and the rules and regulations of the Securities and Exchange Commission promulgated thereunder, with respect to, any of the Shares. The foregoing restriction shall not apply to bona fide gifts of Shares approved by the Company or BioTime where each recipient of a gift of shares agrees in writing to be bound by the same restrictions in place for Purchaser pursuant to this Section 4 for the duration that such restrictions remain in effect at the time of transfer. This Section 4 applies only to the Shares purchased by Purchaser pursuant to this Agreement and any other common shares of BioTime issued to Purchaser as a stock dividend or upon the split-up or reclassification of such Shares.

5. Representations and Warranties of the Company. The Company makes the following representations and warranties for the benefit and reliance of Purchaser. The following representations and warranties are true and correct on the date of this Agreement and as of the Closing Date, and are qualified accordingly.

(a) Organization. The Company is a corporation duly organized, validly existing and in good standing under the laws of the state of Delaware, with the requisite power and authority to own and use its properties and assets and to carry on its business as currently conducted. The Company is duly qualified to conduct business and is in good standing as a foreign corporation in California and in each other jurisdiction in which the nature of the business conducted or property owned by it makes such qualification necessary, except where the failure to so qualify would not have a material adverse effect on its business.

(b) Authority; Enforceability. The Company has the corporate power and authority to execute and deliver, and to perform all of its obligations under, this Agreement, the Registration Rights Agreement, and the Warrant Agreement. The execution and delivery of this Agreement, the Warrant Agreement, and the Registration Rights Agreement and the performance by the Company of its obligations under this Agreement, the Warrant Agreement, and the Registration Rights Agreement have been duly authorized by all necessary action on the part of the Board of Directors of the Company. This Agreement, the Warrant Agreement and the Registration Rights Agreement are the valid and binding agreements of the Company, enforceable in accordance with their respective terms, except to the extent limited by any bankruptcy, insolvency, or similar law affecting the rights of creditors generally.

(c) No Conflict. The execution and delivery of this Agreement, the Warrant Agreement, and the Registration Rights Agreement, the consummation of the transactions contemplated hereunder and thereunder by the Company do not and will not violate any provisions of (i) any federal or state rule, regulation, statute, or law applicable to the Company or (ii) the terms of any order, writ, or decree of any federal or state court or judicial or regulatory authority or body by which the Company is bound, (iii) the certificate of incorporation or bylaws of the Company or (iv) any agreement, instrument or contract to which the Company is a party and which is material to the business of the Company.

(d) Validity of the Warrants and Warrant Shares. The Warrants, when delivered at Closing, will be the duly authorized and valid obligations of the Company, enforceable in accordance with the terms of the Warrant Agreement. The Warrant Shares, when issued upon exercise of the Warrants, will be duly authorized and validly issued, fully paid, and nonassessable.

(e) Litigation. There is no action, proceeding, or investigation pending which challenges the Company's right to enter into this Agreement, or challenges any action taken or to be taken, by the Company in connection with this Agreement.

(f) Capitalization. The authorized capital of the Company includes 75,000,000 shares of Series A Common Stock, 75,000,000 shares of Series B Common Stock, and 5,000,000 shares of Preferred Stock. As of June 9, 2014, there were issued and outstanding: (i) 6,537,779 shares of Company Series A Common Stock, (ii) 24,161,040 shares of Series B Common Stock (including 200,000 shares of 'restricted stock" under the Company's Equity Incentive Plan); (iii) no shares of preferred stock issued or outstanding, (iv) 3,500,000 Warrants to purchase Series B Common Stock, and (v) options to purchase 3,873,749 shares of Series B Common Stock under the Company's Equity Incentive Plan.

6. Investment Representations. Purchaser represents and warrants to the Company that:

(a) Authority; Enforceability. The Purchaser has the power and authority to execute and deliver, and to perform all of Purchaser's obligations under, this Agreement and the Registration Rights Agreement. This Agreement has been duly executed and delivered by Purchaser. This Agreement is, and when executed by Purchaser and the Company the Registration Rights Agreement will be, the valid and binding agreements of the Purchaser, enforceable in accordance with their respective terms, except to the extent limited by any bankruptcy, insolvency, or similar law affecting the rights of creditors generally.

(b) No Conflict. The execution and delivery of this Agreement and the Registration Rights Agreement, and consummation of the transactions contemplated under this Agreement and under the Registration Rights Agreement, including the purchase of the Shares with Warrants, by the Purchaser do not and will not violate any provisions of (i) any rule, regulation, statute, or law applicable to the Purchaser, (ii) the terms of any order, writ, or decree of any court or judicial or regulatory authority or body by which the Purchaser is bound, or (iii) the certificate of incorporation, bylaws, or similar charter or governing documents of the Purchaser.

(c) Due Diligence. Purchaser has made such investigation of the Company and BioTime, Inc. as Purchaser deemed appropriate for determining to acquire (and thereby make an investment in) the Shares and Warrants. In making such investigation, Purchaser has had access to such financial and other information concerning the Company and BioTime as Purchaser requested. Purchaser has received and read copies of the form of Warrant Agreement, including the form of the Warrant, and the form of Registration Rights Agreement. Purchaser acknowledges and understands that the Company is an early stage venture with only a limited history of operations, and has received only limited capital. Purchaser acknowledges receipt of, or has access to: (i) the Company's and BioTime's respective Annual Report on Form 10-K for the year ended December 31, 2013, Quarterly Report on Form 10-Q for the three months ended March 31, 2014, and each Current Report on Form 8-K filed by the Company and BioTime under the Securities and Exchange Act of 1934, as amended (the "Exchange Act"), since January 1, 2014; (ii) a copy of the Amended and Restated Certificate of Incorporation and Bylaws of the Company, and (iii) BioTime's most recent prospectus filed under the Act with respect to Registration Statement No. 333-187710 (collectively, the "Disclosure Documents"). Purchaser is relying on the information provided in the Disclosure Documents or otherwise communicated to Purchaser in writing by the Company. Purchaser has not relied on any statement or representations inconsistent with those contained in the Disclosure Documents or otherwise communicated to Purchaser in writing by the Company. Purchaser has had a reasonable opportunity to ask questions of and receive answers from the executive officers of the Company and BioTime, concerning the Company and BioTime, respectively, and to obtain additional information (including all exhibits listed in the Disclosure Documents), to the extent possessed or obtainable by the Company or BioTime without unreasonable effort or expense, necessary to verify the information in the Disclosure Documents. All such questions have been answered to Purchaser's satisfaction.

(d) Unregistered Offer and Sale. Purchaser understands that the Warrants and Warrant Shares are being offered and sold without registration under the Act, or qualification under the California Corporate Securities Law of 1968, or under the laws of any other states of the United States in reliance upon the exemptions from such registration and qualification requirements. Purchaser acknowledges and understands that the availability of the aforesaid exemptions depends in part upon the accuracy of certain of the representations, declarations and warranties made by Purchaser, and the information provided by Purchaser, in this Agreement, Purchaser is making such representations, declarations and warranties, and is providing such information, with the intent that the same may be relied upon by the Company and its officers and directors in determining Purchaser's suitability to acquire the Warrants. Purchaser understands and acknowledges that no federal, state or other agency has reviewed or endorsed the offering of the Shares, Warrants, and Warrant Shares or made any finding or determination as to the fairness of the offering or sale of the Shares, Warrants and Warrant Shares, or the completeness of the information in the Disclosure Documents.

(e) Restrictions on Exercise and Transfer. Purchaser understands that the Warrants and Warrant Shares may not be offered, sold, or transferred in any manner, and the Warrants may not be exercised, unless subsequently registered under the Act, or unless there is an exemption from such registration available for such offer, sale or transfer.

(f) Knowledge and Experience. Purchaser (or if Purchaser is not a natural person, the officers and directors making the decision on behalf of Purchaser to purchase the Shares with Warrants) has such knowledge and experience in financial and business matters to enable Purchaser to utilize the information contained in the Disclosure Documents or otherwise made available to Purchaser to evaluate the merits and risks of an investment in the Shares, Warrants, and Warrant Shares, and to make an informed investment decision.

(g) Investment Intent. Purchaser is acquiring the Warrants solely for Purchaser's own account and for investment purposes, and not with a view to, or for sale in connection with, any distribution of the Warrants or Warrant Shares other than pursuant to an effective registration statement under the Act or unless there is an exemption from such registration available for such offer, sale or transfer.

(h) Forward Looking Statements. Matters discussed in the Disclosure Documents include matters that may be considered "forward looking" statements within the meaning of Section 27(a) of the Act and Section 21(e) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), which statements Purchaser acknowledges and agrees are not guarantees of future performance and involve a number of risks and uncertainties. Nothing contained in this Section 6(h) shall modify, amend or affect Purchaser's right to rely on the truth, accuracy and completeness of the statements and representations made in the Disclosure Documents or otherwise communicated to Purchaser in writing by the Company or on the Company's representations and warranties contained in this Agreement.

(i) No Assurance of Return on Investment. It has never been represented, guaranteed or warranted to Purchaser by the Company or BioTime or any officer, director, employee, or agent of the Company or BioTime, that Purchaser will realize any specific value, sale price, or profit as a result of acquiring the Shares, Warrants, or Warrant Shares.

7. Resale Restrictions on Warrants and Warrant Shares.

(a) Purchaser agrees that Purchaser will not sell, offer for sale, or transfer any of the Warrants or Warrant Shares unless those Warrants or Warrant Shares, as applicable, have been registered under the Act, or unless there is an exemption from such registration and an opinion of counsel reasonably acceptable to the Company has been rendered stating that such offer, sale, or transfer will not violate any United States federal or state securities laws.

(b) The certificates evidencing the Warrants or Warrant Shares will contain a legend to the effect that transfer is prohibited except pursuant to registration under the Act, or pursuant to an available exemption from registration under the Act.

(c) The Company will refuse to register the transfer, and will issue instructions to the transfer agent and registrar of the Warrants and Warrant Shares to refuse to register the transfer, of any Warrants or Warrant Shares not made pursuant to registration under the Act or pursuant to an available exemption from registration under the Act.

8. Accredited Investor Qualification. Purchaser qualifies as an "accredited investor" under Regulation D in the following manner. (Please check or initial all that apply to verify that you qualify as an "accredited investor.")

_____(a) Purchaser is a natural person whose net worth, or joint net worth with spouse, at the date of purchase exceeds $1,000,000 (not including the value of Purchaser's principal residence and excluding mortgage debt secured by Purchaser's principal residence up to the estimated fair market value of the home, except that any mortgage debt incurred by Purchaser within 60 days prior to the date of this Agreement shall not be excluded from the determination of Purchaser's net worth unless such mortgage debt was incurred to acquire the residence).

____(b) Purchaser is a natural person whose individual gross income (excluding that of spouse) exceeded $200,000 in each of the past two calendar years, and who reasonably expects individual gross income exceeding $200,000 in the current calendar year.

____(c) Purchaser is a natural person whose joint gross income with spouse exceeded $300,000 in each of the past two calendar years, and who reasonably expects joint gross income with spouse exceeding $300,000 in the current calendar year.

____(d) Purchaser is a bank, savings and loan association, broker/dealer, insurance company, investment company, pension plan or other entity defined in Rule 501(a)(1) of Regulation D as promulgated under the Act by the Securities and Exchange Commission.

____(e) Purchaser is a trust, and the trustee is a bank, savings and loan association, or other institutional investor as defined in Rule 501(a)(1) of Regulation D as promulgated under the Act by the Securities and Exchange Commission.

____(f) Purchaser is a private business development company as defined in section 202(a)(22) of the Investment Advisers Act of 1940.

____(g) Purchaser is a trust, and the grantor (i) has the power to revoke the trust at any time and regain title to the trust assets; and (ii) meets the requirements of items (a) (b), or (c) above.

___x (h) Purchaser is a tax-exempt organization described in Section 501(c) (3) of the Internal Revenue Code, or a corporation, Massachusetts or similar business trust, or partnership, not formed for the specific purpose of acquiring Shares and Warrants with total assets in excess of $5,000,000.

____(i) The Purchaser is a trust with total assets in excess of $5,000,000, not formed for the specific purpose of acquiring Shares and Warrants, whose purchase is directed by a person who has such knowledge and experience in financial and business matters that he is capable of evaluating the merits and risks of an investment in the Shares and Warrants.

____(j) The Purchaser is an entity in which all of the equity owners meet the requirements of at least one of items (a) through (i) above.

9. Entities. If Purchaser is a corporation, partnership, limited liability company, trust, private limited company, or other entity, Purchaser represents and warrants that: (a) it is authorized and otherwise duly qualified to purchase and hold the Shares and Warrants; (b) it has its principal place of business as set forth in Section 11; and (c) it has not been formed or reorganized for the specific purpose of acquiring Shares and Warrants.

10. Miscellaneous.

(a) Governing Law. This Agreement shall be governed by, interpreted, construed and enforced in accordance with the laws of the State of Delaware, as such laws are applied to contracts by and among residents of Delaware, and which are to be performed wholly within Delaware.

(b) Amendment. Neither this Agreement nor any provisions hereof shall be modified, discharged or terminated except by an instrument in writing signed by the party against whom any waiver, change, discharge or termination is sought.

(c) Notices. Any notice, demand or other communication that any party hereto may be required, or may elect, to give shall be sufficiently given when (i) delivered personally at such address, (ii) delivered to such address by air courier delivery service, or (iii) delivered by electronic mail (email) to such electronic mail address as may be specified under this Agreement. The address for notice to the Company is: Asterias Biotherapeutics, Inc., 230 Constitution Drive, Menlo Park, California 94025; Attention: Robert W. Peabody, Chief Financial Officer; email: rpeabody@biotimemail.com. The address for notice of Purchaser is shown in Section 11. A party may change its address for notice by giving the other parties notice of a new address in the manner provided in this Agreement.

(d) Counterparts. This Agreement may be executed through the use of separate signature pages or in any number of counterparts, and each of such counterparts shall, for all purposes, constitute one agreement binding on all the parties, notwithstanding that all parties are not signatories to the same counterpart. Counterparts sent by electronic mail, facsimile, or other electronic means, including signatures thereon, shall be deemed originals.

(e) Parties. Except as otherwise provided herein, the Agreement shall be binding upon and inure to the benefit of the parties and their heirs, executors, administrators, successors, legal representatives and assigns.

(f) Entire Agreement. This Agreement contains the entire agreement of the parties with respect to its subject matter, and there are no representations, covenants or other agreements with respect to the subject matter of this Agreement except for those stated or referred to herein.

(g) No Assignment. This Agreement is not transferable or assignable by Purchaser except as may be provided herein.

(h) Delays and Omissions. No delay or omission to exercise any right, power, or remedy accruing to any party to this Agreement, upon any breach or default of any other party under this Agreement, shall impair any such right, power, or remedy of such party, nor shall such delay or omission be construed to be a waiver of, or an acquiescence in, any such breach or default or any similar breach or default thereafter occurring; nor shall any waiver of any single breach or default be deemed a waiver of any other breach or default theretofore or thereafter occurring. Any waiver, permit, consent, or approval of any kind or character on the part of any party of any breach or default under this Agreement, or any waiver on the part of any party of any provisions or conditions of this Agreement, must be made in writing, and shall be effective only to the extent specifically set forth in such writing.

(i) Expenses. Each party shall bear their own expenses incurred on their behalf with respect to this Agreement and to the transactions contemplated by this Agreement.

(j) No Brokers or Finders Fees. The Company and Purchaser warrant to each other that no person is entitled to receive any fee, commission, or other compensation as a broker, finder, or otherwise, in connection with the execution and delivery of this Agreement or the issue and sale of the Shares or Warrants.

(k) Titles and Subtitles. The titles or headings of the Sections of this Agreement are for convenience of reference only and are not to be considered in construing this Agreement.

(l) Severability. If one or more provisions of this Agreement are held to be unenforceable under applicable law, each such unenforceable provision shall be excluded from this Agreement and the balance of this Agreement shall be interpreted as if each such unenforceable provision were so excluded; the balance of this Agreement as so interpreted shall be enforceable in accordance with its terms.

11. Investor Information.

Name: Broadwood Partners, L.P.

Address: c/o Broadwood Capital, Inc.

724 Fifth Avenue, 9th Floor, New York, NY 10019

email:

Social Security or U.S. Taxpayer Identification Number:

State of Residence or Principal Place of Business: Delaware

Country of Residence if other than United States:

Information from Corporations, Partnerships, Limited Liability Companies, Trusts, or Other Entity Investors:

Date of Formation: 1/1/89

Name and title of person authorized to bind the entity: Neal C. Bradsher, President of the General Partner

IN WITNESS WHEREOF, the undersigned has entered into this Agreement and hereby agrees to purchase Shares with Warrants for the price stated above and upon the terms and conditions set forth herein. The undersigned hereby agrees to all of the terms of the Warrant Agreement and Registration Rights Agreement and agrees to be bound by the terms and conditions thereof.

Dated: June 12, 2014

Broadwood Partners, L.P.

By: Broadwood Capital, Inc.
General Partner

By: s/Neal C. Bradsher

Title: President

ACCEPTANCE BY COMPANY

The Company hereby agrees to sell to the Purchaser the Shares with Warrants referenced in this Agreement in reliance upon all the representations, warranties, terms and conditions contained in this Agreement.

IN WITNESS WHEREOF, the undersigned, on behalf of the Company, has executed this acceptance as of the date set forth below.

Dated: June 13, 2014

ASTERIAS BIOTHERAPEUTICS, INC.

By: s/Pedro Lichtinger

Title: President and CEO

Exhibit 10.5

PURCHASE AGREEMENT

ASTERIAS BIOTHERAPEUTICS, INC.

4,000,000 BioTime Inc. Common Shares
and
4,000,000 Asterias Series B Common Stock Purchase Warrants

Total Purchase Price $10,000,000

READ THIS AGREEMENT CAREFULLY BEFORE YOU INVEST

The Asterias Common Stock Purchase Warrants ("Warrants"), and the shares of Asterias Series B Common Stock issuable upon the exercise of the Warrants ("Warrant Shares") have not been registered under the Securities Act of 1933, as amended, or applicable state securities laws and may not be offered for sale, sold, transferred, pledged or hypothecated to any person, and the Warrants may not be exercised, in the absence of an effective registration statement covering such securities (or an exemption from such registration) and an opinion of counsel satisfactory to Asterias Biotherapeutics, Inc. to the effect that such transfer complies with applicable securities laws.

PURCHASE AGREEMENT

This Agreement is entered into by Jay J. Miller, Trustee of the George Karfunkel 2007 Grantor Trust #1 ("Purchaser") and Asterias Biotherapeutics, Inc., a Delaware corporation (the "Company).

1. Purchase and Sale of Shares with Warrants.

(a) Purchaser hereby irrevocably agrees to purchase, and the Company hereby irrevocably agrees to sell to Purchaser 4,000,000 common shares, no par value, of BioTime, Inc., ("Shares") for a total purchase price of Ten Million Dollars ($10,000,000). In addition to the Shares, Purchaser will receive warrants to purchase 4,000,000 shares of Series B Common Stock of the Company ("Warrants"). The Warrants will entitle the holder to purchase, on the terms and conditions set forth in the Warrant Agreement governing the Warrant, shares of Series B Common Stock, par value $0.0001 of the Company ("Warrant Shares") for $2.34 per Warrant Share (the "Warrant Price"), subject to adjustment as provided in the Warrant Agreement a copy of which is attached as Exhibit A (the "Warrant Agreement").

2. Closing. The consummation of the sale of the Shares with Warrants ("Closing") will take place no later than the second business day after the Company delivers to Purchaser a countersigned signature page copy of this Agreement (the "Closing Date").

(a) On the Closing Date, Purchaser shall purchase all 4,000,000 Shares with 4,000,000 Warrants and shall pay to the Company, by wire transfer to an account designated by the Company, the full purchase price of $10,000,000. On the Closing Date, the Company will issue to the Purchaser the 4,000,000 Shares purchased and 4,000,000 Warrants.

(b) The issue of the Shares purchased may be, at the election of the Company, by book entry of such Shares purchased, in the name of the Purchaser, on the records of the transfer agent of the Shares or by a stock certificate in the name of the Purchaser for the number of Shares purchased. The Warrants shall be sent to the Purchaser by next business day delivery service or certified mail within two business days after the Closing Date, along with a copy of the Warrant Agreement governing the Warrants executed by the Company.

(c) The Closing shall be subject to the following conditions:

(i) The representations and warranties of the Company contained in this Agreement shall be true and correct in all material respects on the date of the Closing, and the Company shall have complied in all material respects with its covenants required to have been performed as of the date of Closing; and

(ii) No litigation or other proceeding of any kind to enjoin, delay, prohibit or restrict the consummation of the sale of the Shares with Warrants under this Agreement shall be pending, and there shall be no judgment, order or writ of any court or government authority in effect prohibiting or restricting the consummation of the of the sale of the Shares with Warrants under this Agreement.

3. Registration Rights. Concurrently with the execution and delivery of this Agreement, Purchaser and the Company shall enter into a Registration Rights Agreement in the form of Exhibit B, pursuant to which the Company is agreeing to register the Warrants and the Warrant Shares under the Securities Act of 1933, as amended (the "Act").

4. Lock-Up Agreement. In order to induce the Company to enter into this Agreement and to sell to Purchaser the Shares with Warrants pursuant to this Agreement, Purchaser agrees that for a period of 275 days commencing on the Closing Date, Purchaser shall not, without the prior written consent of the Company or BioTime, (i) offer, sell, contract to sell, pledge or otherwise dispose of any of the Shares, or (ii) enter into any transaction which is designed to, or might reasonably be expected to, result in the disposition of any of the Shares, whether by actual disposition or effective economic disposition due to cash settlement or otherwise, by Purchaser or any affiliate of Purchaser or any person in privity with Purchaser or any affiliate of Purchaser. The foregoing prohibition on the disposition of the Shares shall also prohibit the filing (or participation in the filing) of a registration statement with the Securities and Exchange Commission in respect of, or establishing or increasing a put equivalent position or liquidate or decrease a call equivalent position within the meaning of Section 16 of the Securities Exchange Act of 1934, as amended, and the rules and regulations of the Securities and Exchange Commission promulgated thereunder, with respect to, any of the Shares. The foregoing restriction shall not apply to bona fide gifts of Shares approved by the Company or BioTime where each recipient of a gift of shares agrees in writing to be bound by the same restrictions in place for Purchaser pursuant to this Section 4 for the duration that such restrictions remain in effect at the time of transfer. This Section 4 applies only to the Shares purchased by Purchaser pursuant to this Agreement and any other common shares of BioTime issued to Purchaser as a stock dividend or upon the split-up or reclassification of such Shares.

5. Representations and Warranties of the Company. The Company makes the following representations and warranties for the benefit and reliance of Purchaser. The following representations and warranties are true and correct on the date of this Agreement and as of the Closing Date, and are qualified accordingly.

(a) Organization. The Company is a corporation duly organized, validly existing and in good standing under the laws of the state of Delaware, with the requisite power and authority to own and use its properties and assets and to carry on its business as currently conducted. The Company is duly qualified to conduct business and is in good standing as a foreign corporation in California and in each other jurisdiction in which the nature of the business conducted or property owned by it makes such qualification necessary, except where the failure to so qualify would not have a material adverse effect on its business.

(b) Authority; Enforceability. The Company has the corporate power and authority to execute and deliver, and to perform all of its obligations under, this Agreement, the Registration Rights Agreement, and the Warrant Agreement. The execution and delivery of this Agreement, the Warrant Agreement, and the Registration Rights Agreement and the performance by the Company of its obligations under this Agreement, the Warrant Agreement, and the Registration Rights Agreement have been duly authorized by all necessary action on the part of the Board of Directors of the Company. This Agreement, the Warrant Agreement and the Registration Rights Agreement are the valid and binding agreements of the Company, enforceable in accordance with their respective terms, except to the extent limited by any bankruptcy, insolvency, or similar law affecting the rights of creditors generally.

(c) No Conflict. The execution and delivery of this Agreement, the Warrant Agreement, and the Registration Rights Agreement, the consummation of the transactions contemplated hereunder and thereunder by the Company do not and will not violate any provisions of (i) any federal or state rule, regulation, statute, or law applicable to the Company or (ii) the terms of any order, writ, or decree of any federal or state court or judicial or regulatory authority or body by which the Company is bound, (iii) the certificate of incorporation or bylaws of the Company or (iv) any agreement, instrument or contract to which the Company is a party and which is material to the business of the Company.

(d) Validity of the Warrants and Warrant Shares. The Warrants, when delivered at Closing, will be the duly authorized and valid obligations of the Company, enforceable in accordance with the terms of the Warrant Agreement. The Warrant Shares, when issued upon exercise of the Warrants, will be duly authorized and validly issued, fully paid, and nonassessable.

(e) Litigation. There is no action, proceeding, or investigation pending which challenges the Company's right to enter into this Agreement, or challenges any action taken or to be taken, by the Company in connection with this Agreement.

(f) Capitalization. The authorized capital of the Company includes 75,000,000 shares of Series A Common Stock, 75,000,000 shares of Series B Common Stock, and 5,000,000 shares of Preferred Stock. As of June 9, 2014, there were issued and outstanding: (i) 6,537,779 shares of Company Series A Common Stock, (ii) 24,161,040 shares of Series B Common Stock (including 200,000 shares of 'restricted stock" under the Company's Equity Incentive Plan); (iii) no shares of preferred stock issued or outstanding, (iv) 3,500,000 Warrants to purchase Series B Common Stock, and (v) options to purchase 3,873,749 shares of Series B Common Stock under the Company's Equity Incentive Plan.

6. Investment Representations. Purchaser represents and warrants to the Company that:

(a) Authority; Enforceability. The Purchaser has the power and authority to execute and deliver, and to perform all of Purchaser's obligations under, this Agreement and the Registration Rights Agreement. This Agreement has been duly executed and delivered by Purchaser. This Agreement is, and when executed by Purchaser and the Company the Registration Rights Agreement will be, the valid and binding agreements of the Purchaser, enforceable in accordance with their respective terms, except to the extent limited by any bankruptcy, insolvency, or similar law affecting the rights of creditors generally.

(b) No Conflict. The execution and delivery of this Agreement and the Registration Rights Agreement, and consummation of the transactions contemplated under this Agreement and under the Registration Rights Agreement, including the purchase of the Shares with Warrants, by the Purchaser do not and will not violate any provisions of (i) any rule, regulation, statute, or law applicable to the Purchaser, (ii) the terms of any order, writ, or decree of any court or judicial or regulatory authority or body by which the Purchaser is bound, or (iii) the certificate of incorporation, bylaws, or similar charter or governing documents of the Purchaser.

(c) Due Diligence. Purchaser has made such investigation of the Company and BioTime, Inc. as Purchaser deemed appropriate for determining to acquire (and thereby make an investment in) the Shares and Warrants. In making such investigation, Purchaser has had access to such financial and other information concerning the Company and BioTime as Purchaser requested. Purchaser has received and read copies of the form of Warrant Agreement, including the form of the Warrant, and the form of Registration Rights Agreement. Purchaser acknowledges and understands that the Company is an early stage venture with only a limited history of operations, and has received only limited capital. Purchaser acknowledges receipt of, or has access to: (i) the Company's and BioTime's respective Annual Report on Form 10-K for the year ended December 31, 2013, Quarterly Report on Form 10-Q for the three months ended March 31, 2014, and each Current Report on Form 8-K filed by the Company and BioTime under the Securities and Exchange Act of 1934, as amended (the "Exchange Act"), since January 1, 2014; (ii) a copy of the Amended and Restated Certificate of Incorporation and Bylaws of the Company, and (iii) BioTime's most recent prospectus filed under the Act with respect to Registration Statement No. 333-187710 (collectively, the "Disclosure Documents"). Purchaser is relying on the information provided in the Disclosure Documents or otherwise communicated to Purchaser in writing by the Company. Purchaser has not relied on any statement or representations inconsistent with those contained in the Disclosure Documents or otherwise communicated to Purchaser in writing by the Company. Purchaser has had a reasonable opportunity to ask questions of and receive answers from the executive officers of the Company and BioTime, concerning the Company and BioTime, respectively, and to obtain additional information (including all exhibits listed in the Disclosure Documents), to the extent possessed or obtainable by the Company or BioTime without unreasonable effort or expense, necessary to verify the information in the Disclosure Documents. All such questions have been answered to Purchaser's satisfaction.

(d) Unregistered Offer and Sale. Purchaser understands that the Warrants and Warrant Shares are being offered and sold without registration under the Act, or qualification under the California Corporate Securities Law of 1968, or under the laws of any other states of the United States in reliance upon the exemptions from such registration and qualification requirements. Purchaser acknowledges and understands that the availability of the aforesaid exemptions depends in part upon the accuracy of certain of the representations, declarations and warranties made by Purchaser, and the information provided by Purchaser, in this Agreement, Purchaser is making such representations, declarations and warranties, and is providing such information, with the intent that the same may be relied upon by the Company and its officers and directors in determining Purchaser's suitability to acquire the Warrants. Purchaser understands and acknowledges that no federal, state or other agency has reviewed or endorsed the offering of the Shares, Warrants, and Warrant Shares or made any finding or determination as to the fairness of the offering or sale of the Shares, Warrants and Warrant Shares, or the completeness of the information in the Disclosure Documents.

(e) Restrictions on Exercise and Transfer. Purchaser understands that the Warrants and Warrant Shares may not be offered, sold, or transferred in any manner, and the Warrants may not be exercised, unless subsequently registered under the Act, or unless there is an exemption from such registration available for such offer, sale or transfer.

(f) Knowledge and Experience. Purchaser (or if Purchaser is not a natural person, the officers and directors making the decision on behalf of Purchaser to purchase the Shares with Warrants) has such knowledge and experience in financial and business matters to enable Purchaser to utilize the information contained in the Disclosure Documents or otherwise made available to Purchaser to evaluate the merits and risks of an investment in the Shares, Warrants, and Warrant Shares, and to make an informed investment decision.

(g) Investment Intent. Purchaser is acquiring the Warrants solely for Purchaser's own account and for investment purposes, and not with a view to, or for sale in connection with, any distribution of the Warrants or Warrant Shares other than pursuant to an effective registration statement under the Act or unless there is an exemption from such registration available for such offer, sale or transfer.

(h) Forward Looking Statements. Matters discussed in the Disclosure Documents include matters that may be considered "forward looking" statements within the meaning of Section 27(a) of the Act and Section 21(e) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), which statements Purchaser acknowledges and agrees are not guarantees of future performance and involve a number of risks and uncertainties. Nothing contained in this Section 6(h) shall modify, amend or affect Purchaser's right to rely on the truth, accuracy and completeness of the statements and representations made in the Disclosure Documents or otherwise communicated to Purchaser in writing by the Company or on the Company's representations and warranties contained in this Agreement.

(i) No Assurance of Return on Investment. It has never been represented, guaranteed or warranted to Purchaser by the Company or BioTime or any officer, director, employee, or agent of the Company or BioTime, that Purchaser will realize any specific value, sale price, or profit as a result of acquiring the Shares, Warrants, or Warrant Shares.

7. Resale Restrictions on Warrants and Warrant Shares.

(a) Purchaser agrees that Purchaser will not sell, offer for sale, or transfer any of the Warrants or Warrant Shares unless those Warrants or Warrant Shares, as applicable, have been registered under the Act, or unless there is an exemption from such registration and an opinion of counsel reasonably acceptable to the Company has been rendered stating that such offer, sale, or transfer will not violate any United States federal or state securities laws.

(b) The certificates evidencing the Warrants or Warrant Shares will contain a legend to the effect that transfer is prohibited except pursuant to registration under the Act, or pursuant to an available exemption from registration under the Act.

(c) The Company will refuse to register the transfer, and will issue instructions to the transfer agent and registrar of the Warrants and Warrant Shares to refuse to register the transfer, of any Warrants or Warrant Shares not made pursuant to registration under the Act or pursuant to an available exemption from registration under the Act.

8. Accredited Investor Qualification. Purchaser qualifies as an "accredited investor" under Regulation D in the following manner. (Please check or initial all that apply to verify that you qualify as an "accredited investor.")

____(a) Purchaser is a natural person whose net worth, or joint net worth with spouse, at the date of purchase exceeds $1,000,000 (not including the value of Purchaser's principal residence and excluding mortgage debt secured by Purchaser's principal residence up to the estimated fair market value of the home, except that any mortgage debt incurred by Purchaser within 60 days prior to the date of this Agreement shall not be excluded from the determination of Purchaser's net worth unless such mortgage debt was incurred to acquire the residence).

____(b) Purchaser is a natural person whose individual gross income (excluding that of spouse) exceeded $200,000 in each of the past two calendar years, and who reasonably expects individual gross income exceeding $200,000 in the current calendar year.

____(c) Purchaser is a natural person whose joint gross income with spouse exceeded $300,000 in each of the past two calendar years, and who reasonably expects joint gross income with spouse exceeding $300,000 in the current calendar year.

____(d) Purchaser is a bank, savings and loan association, broker/dealer, insurance company, investment company, pension plan or other entity defined in Rule 501(a)(1) of Regulation D as promulgated under the Act by the Securities and Exchange Commission.

____(e) Purchaser is a trust, and the trustee is a bank, savings and loan association, or other institutional investor as defined in Rule 501(a)(1) of Regulation D as promulgated under the Act by the Securities and Exchange Commission.

____(f) Purchaser is a private business development company as defined in section 202(a)(22) of the Investment Advisers Act of 1940.

__x__(g) Purchaser is a trust, and the grantor (i) has the power to revoke the trust at any time and regain title to the trust assets; and (ii) meets the requirements of items (a) (b), or (c) above.

____(h) Purchaser is a tax-exempt organization described in Section 501(c) (3) of the Internal Revenue Code, or a corporation, Massachusetts or similar business trust, or partnership, not formed for the specific purpose of acquiring Shares and Warrants with total assets in excess of $5,000,000.

____(i) The Purchaser is a trust with total assets in excess of $5,000,000, not formed for the specific purpose of acquiring Shares and Warrants, whose purchase is directed by a person who has such knowledge and experience in financial and business matters that he is capable of evaluating the merits and risks of an investment in the Shares and Warrants.

____(j) The Purchaser is an entity in which all of the equity owners meet the requirements of at least one of items (a) through (i) above.

9. Entities. If Purchaser is a corporation, partnership, limited liability company, trust, private limited company, or other entity, Purchaser represents and warrants that: (a) it is authorized and otherwise duly qualified to purchase and hold the Shares and Warrants; (b) it has its principal place of business as set forth in Section 11; and (c) it has not been formed or reorganized for the specific purpose of acquiring Shares and Warrants.

10. Miscellaneous.

(a) Governing Law. This Agreement shall be governed by, interpreted, construed and enforced in accordance with the laws of the State of Delaware, as such laws are applied to contracts by and among residents of Delaware, and which are to be performed wholly within Delaware.

(b) Amendment. Neither this Agreement nor any provisions hereof shall be modified, discharged or terminated except by an instrument in writing signed by the party against whom any waiver, change, discharge or termination is sought.

(c) Notices. Any notice, demand or other communication that any party hereto may be required, or may elect, to give shall be sufficiently given when (i) delivered personally at such address, (ii) delivered to such address by air courier delivery service, or (iii) delivered by electronic mail (email) to such electronic mail address as may be specified under this Agreement. The address for notice to the Company is: Asterias Biotherapeutics, Inc., 230 Constitution Drive, Menlo Park, California 94025; Attention: Robert W. Peabody, Chief Financial Officer; email: rpeabody@biotimemail.com. The address for notice of Purchaser is shown in Section 11. A party may change its address for notice by giving the other parties notice of a new address in the manner provided in this Agreement.

(d) Counterparts. This Agreement may be executed through the use of separate signature pages or in any number of counterparts, and each of such counterparts shall, for all purposes, constitute one agreement binding on all the parties, notwithstanding that all parties are not signatories to the same counterpart. Counterparts sent by electronic mail, facsimile, or other electronic means, including signatures thereon, shall be deemed originals.

(e) Parties. Except as otherwise provided herein, the Agreement shall be binding upon and inure to the benefit of the parties and their heirs, executors, administrators, successors, legal representatives and assigns.

(f) Entire Agreement. This Agreement contains the entire agreement of the parties with respect to its subject matter, and there are no representations, covenants or other agreements with respect to the subject matter of this Agreement except for those stated or referred to herein.

(g) No Assignment. This Agreement is not transferable or assignable by Purchaser except as may be provided herein.

(h) Delays and Omissions. No delay or omission to exercise any right, power, or remedy accruing to any party to this Agreement, upon any breach or default of any other party under this Agreement, shall impair any such right, power, or remedy of such party, nor shall such delay or omission be construed to be a waiver of, or an acquiescence in, any such breach or default or any similar breach or default thereafter occurring; nor shall any waiver of any single breach or default be deemed a waiver of any other breach or default theretofore or thereafter occurring. Any waiver, permit, consent, or approval of any kind or character on the part of any party of any breach or default under this Agreement, or any waiver on the part of any party of any provisions or conditions of this Agreement, must be made in writing, and shall be effective only to the extent specifically set forth in such writing.

(i) Expenses. Each party shall bear their own expenses incurred on their behalf with respect to this Agreement and to the transactions contemplated by this Agreement.

(j) No Brokers or Finders Fees. The Company and Purchaser warrant to each other that no person is entitled to receive any fee, commission, or other compensation as a broker, finder, or otherwise, in connection with the execution and delivery of this Agreement or the issue and sale of the Shares or Warrants.

(k) Titles and Subtitles. The titles or headings of the Sections of this Agreement are for convenience of reference only and are not to be considered in construing this Agreement.

(l) Severability. If one or more provisions of this Agreement are held to be unenforceable under applicable law, each such unenforceable provision shall be excluded from this Agreement and the balance of this Agreement shall be interpreted as if each such unenforceable provision were so excluded; the balance of this Agreement as so interpreted shall be enforceable in accordance with its terms.

11. Investor Information.

Name: The George Karfunkel 2007 Grantor Trust #1

Address: 1671 52 Street

Brooklyn, NY 11204

email:

Social Security or U.S. Taxpayer Identification Number:

State of Residence or Principal Place of Business: NY

Country of Residence if other than United States:

Information from Corporations, Partnerships, Limited Liability Companies, Trusts, or Other Entity Investors:

Date of Formation: 8-14-2007

Name and title of person authorized to bind the entity: Jay J. Miller, Esq.

IN WITNESS WHEREOF, the undersigned has entered into this Agreement and hereby agrees to purchase Shares with Warrants for the price stated above and upon the terms and conditions set forth herein. The undersigned hereby agrees to all of the terms of the Warrant Agreement and Registration Rights Agreement and agrees to be bound by the terms and conditions thereof.

Dated: June 12, 2014

s/Jay J. Miller
Jay J. Miller, Trustee of the
George Karfunkel 2007 Grantor Trust #1

ACCEPTANCE BY COMPANY

The Company hereby agrees to sell to the Purchaser the Shares with Warrants referenced in this Agreement in reliance upon all the representations, warranties, terms and conditions contained in this Agreement.

IN WITNESS WHEREOF, the undersigned, on behalf of the Company, has executed this acceptance as of the date set forth below.

Dated: June 13, 2014

ASTERIAS BIOTHERAPEUTICS, INC.

By: s/Pedro Lichtinger

Title: President and CEO

Exhibit 10.6

REGISTRATION RIGHTS AGREEMENT

THIS REGISTRATION RIGHTS AGREEMENT, dated as of June 16, 2014, is made by and among Asterias Biotherapeutics, Inc., a Delaware corporation (the "Company"), and each Shareholder (as defined below) who is the registered holder of Registrable Securities (as defined below).

WHEREAS, the parties hereto desire to provide for, among other things, the grant of registration rights with respect to the Registrable Securities.

NOW, THEREFORE, in consideration of the mutual covenants and agreements set forth herein and for good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the parties hereto agree as follows:

1. Definitions and Interpretations.

(a) Definitions. As used in this Agreement, and unless the context requires a different meaning, the following terms have the meanings indicated:

(i) "Acquired Shares" means the Shares issued or issuable upon the exercise of the Warrants, including any Shares into which such Shares may be converted, and any.

(ii) "Affiliate" means, with respect to a Person, any other Person directly or indirectly controlling, controlled by or under direct or indirect common control with such specified Person. For purposes of this definition, "control" (including, with correlative meanings, the terms "controlling," "controlled by" and "under common control with"), as used with respect to a Person, shall mean the possession, directly or indirectly, of the power to direct or cause the direction of the management or policies of such Person, whether through the ownership of voting securities, by agreement or otherwise.

(iii) "Agreement" means this Registration Rights Agreement as the same may be amended, supplemented or modified in accordance with the terms.

(iv) "Automatic Shelf Registration Statement" means an "automatic shelf registration statement" as defined in Rule 405 promulgated under the Securities Act.

(v) "Board of Directors" means the Board of Directors of the Company (or any duly authorized committee thereof).

(vi) "Business Day" means any day other than a Saturday, Sunday or other day on which commercial banks in New York, New York and San Francisco, California are authorized or required by law or executive order to close.

(vii) "Commission" means the Securities and Exchange Commission or any similar agency then having jurisdiction to enforce the Securities Act.

(viii) "Company" has the meaning set forth in the preamble to this Agreement.

(ix) "Company Free Writing Prospectus" means each Free Writing Prospectus prepared by or on behalf of the Company or used or referred to by the Company in connection with an offering of Registrable Securities.

(x) "Disclosure Package" means, with respect to any offering of Registrable Securities, (i) the preliminary Prospectus, (ii) each Free Writing Prospectus and (iii) all other information, in each case, that is deemed, under Rule 159 promulgated under the Securities Act, to have been conveyed to purchasers of securities at the time of sale of such securities (including, without limitation, a contract of sale).

(xi) "Exchange Act" means the Securities Exchange Act of 1934, as amended, and the rules and regulations of the Commission thereunder.

(xii) "Free Writing Prospectus" means any "free writing prospectus" as defined in Rule 405 promulgated under the Securities Act.

(xiii) "Indemnified Party" has the meaning set forth in Section 4(c).

(xiv) "Indemnifying Party" has the meaning set forth in Section 4(c).

(xv) "Inspector" has the meaning set forth in Section 3(b).

(xvi) "Liability" has the meaning set forth in Section 4(a).

(xvii) "Permitted Assignee" means with respect to any Shareholder, to the extent applicable, (i) such Shareholder's parents, spouse, siblings, siblings' spouses, children (including stepchildren and adopted children), children's spouses, grandchildren or grandchildren's spouses ("Family Members"), (ii) a corporation, partnership or limited liability company, a majority of the beneficial interests of which shall be held by such Shareholder, such Shareholder's Affiliates and/or such Shareholder's Family Members, (iii) a trust, the beneficiaries of which are such Shareholder and/or such Shareholder's Family Members, (iv) such Shareholder's heirs, executors, administrators, estate or a trust under such Shareholder's will, (v) an entity described in Section 501(c)(3) of the United States Internal Revenue Code of 1986, as amended, that is established by such Shareholder, and (vi) any Affiliate of such Shareholder.

(xviii) "Person" means any individual, corporation, partnership, limited liability company, trust, incorporated or unincorporated association, joint venture, joint stock company, government (or an agency or political subdivision) or other entity of any kind, and shall include any successor (by merger or otherwise) of such entity.

(xix) "Pledgee" has the meaning set forth in Section 2(d)(i).

(xx) "Prospectus" means the prospectus related to any Registration Statement (including, without limitation, a prospectus or prospectus supplement that discloses information previously omitted from a prospectus filed as part of an effective registration statement in reliance on Rule 415, 430A, 430B or 430C under the Securities Act, as amended or supplemented by any amendment or prospectus supplement), including post-effective amendments, and all materials incorporated by reference in such prospectus.

(xxi) "Records" has the meaning set forth in Section 3(b)(viii).

(xxii) "Registrable Securities" means, subject to Section 2(b) and Section 2(d)(i), (i) the Acquired Shares, (ii) the Warrants, and (iii) any other securities that are (A) distributed as a dividend or otherwise with respect to Acquired Shares, or (B) issued or issuable in exchange for or through conversion of the Acquired Shares or Warrants pursuant to a recapitalization, reorganization, merger, consolidation, sale of assets or other transaction.

(xxiii) "Registration Expenses" has the meaning set forth in Section 3(f).

(xxiv) "Registration Statement" means a registration statement filed pursuant to the Securities Act.

(xxv) "Securities Act" means the Securities Act of 1933, as amended, and the rules and regulations of the Commission promulgated thereunder.

(xxvi) "Shareholder" means (a) the Persons named on Schedule I, and (b) such Permitted Assignees or Pledgees of the Persons named on Schedule I to whom registration rights under this Agreement are validly transferred in accordance with Section 2(d)(i).

(xxvii) "Shareholders' Counsel" has the meaning set forth in Section 3(b).

(xxviii) "Shares" means (i) the Series B common stock, of the Company, (ii) any securities of the Company or any successor or assign of the Company into which such shares described in clause (i) are reclassified or reconstituted or into which such shares are converted or otherwise exchanged in connection with a combination of shares, recapitalization, merger, sale of assets, consolidation or other reorganization or otherwise, including any conversion pursuant to the Certificate of Incorporation of the Company or (iii) any securities received as a dividend or distribution in respect of the securities described in clauses (i) and (ii) above.

(xxix) "Warrants" means warrants to purchase Shares of the Company issued to the Shareholders named on Schedule I pursuant to the Stock and Warrant Purchase Agreement between the Company and such Shareholders.

(b) Interpretation. Unless otherwise noted:

(i) All references to laws, rules, regulations and forms in this Agreement shall be deemed to be references to such laws, rules, regulations and forms, as amended from time to time or, to the extent replaced, the comparable successor laws, rules, regulations and forms thereto in effect at the time.

(ii) All references to agencies, self-regulatory organizations or governmental entities in this Agreement shall be deemed to be references to the comparable successor thereto.

(iii) All references to agreements and other contractual instruments shall be deemed to be references to such agreements or other instruments as they may be amended, waived, supplemented or modified from time to time.

(iv) All references to any amount of securities (including Registrable Securities) shall be deemed to be a reference to such amount measured on an as-converted or as-exercised basis.

2. General; Securities Subject to this Agreement

(a) Grant of Rights. The Company hereby grants registration rights to the Shareholders upon the terms and conditions set forth in this Agreement.

(b) Registrable Securities. For the purposes of this Agreement, Registrable Securities held by any Person will cease to be Registrable Securities when (i) a Registration Statement covering such Registrable Securities has been declared effective under the Securities Act by the Commission and such Registrable Securities have been disposed of pursuant to such effective Registration Statement, (ii) the entire amount of the Registrable Securities held by a Person may be sold in a single sale, in the opinion of counsel reasonably satisfactory to the Company, without any limitation as to volume or manner of sale pursuant to Rule 144 promulgated under the Securities Act, (iii) the Registrable Securities have ceased to be outstanding, or (iv) the Registrable Securities have been transferred pursuant to a transfer or pledge otherwise than pursuant to Section 2(d).

(c) Holders of Registrable Securities. A Person is deemed to be a holder of Registrable Securities whenever such Person owns of record Registrable Securities. If the Company receives conflicting instructions, notices or elections from two or more Persons with respect to the same Registrable Securities, the Company may act upon the basis of the instructions, notice or election received from the registered owner of such Registrable Securities.

(d) Transfer of Registration Rights.

(i) A Shareholder may transfer or pledge Registrable Securities with the associated registration rights under this Agreement (including transfers occurring by operation of law or by reason of intestacy) to a Permitted Assignee or a pledgee ("Pledgee") only if (1) such Permitted Assignee or Pledgee agrees in writing to be bound as a Shareholder by the provisions of this Agreement, such agreement being substantially in the form of Annex A hereto, and (2) immediately following such transfer or pledge, the further disposition of such Registrable Securities by such Permitted Assignee or Pledgee would be restricted under the Securities Act and the entire amount of all such Registrable Securities could not be sold in a single sale, in the opinion of counsel reasonably satisfactory to the Company, without any limitation as to volume or manner of sale pursuant to Rule 144 promulgated under the Securities Act. Upon any transfer or pledge of Registrable Securities other than as set forth in this Section 2(d), such securities shall no longer constitute Registrable Securities.

(ii) Subject to Section 2(b), if a Shareholder assigns its rights under this Agreement in connection with the transfer of less than all of its Registrable Securities, the Shareholder shall retain its rights under this Agreement with respect to its remaining Registrable Securities. If a Shareholder assigns its rights under this Agreement in connection with the transfer of all of its Registrable Securities, such Shareholder shall have no further rights or obligations under this Agreement, except under Section 4 in respect of offerings in which it participated.

3. Registration Procedures

(a) S-3 Registration. Promptly after the date on which the Company becomes eligible to register the Registrable Securities on Form S-3, the Company shall prepare and file with the Commission a Registration Statement covering the resale of all of the Registrable Securities for an offering to be made on a continuous basis pursuant to Rule 415. Subject to the terms of this Agreement, the Company shall use its commercially reasonable efforts to cause such Registration Statement to be declared effective under the Securities Act as promptly as possible after the filing thereof.

(b) Obligations of the Company. In connection with the registration of Registrable Securities, the Company shall:

(i) prepare and file with the Commission a Registration Statement on Form S-3 and cause such Registration Statement to become effective; provided, however, that before filing a Registration Statement or Prospectus or any amendments or supplements thereto (including, without limitation, any documents incorporated by reference therein), or before using any Free Writing Prospectus, provide one firm of legal counsel selected by Shareholders holding a majority of the Registrable Securities being registered in such registration ("Shareholder' Counsel"), any managing underwriter or broker/dealer participating in any disposition of such Registrable Securities pursuant to a Registration Statement and any attorney retained by any such managing underwriter or broker/dealer (each, an "Inspector" and collectively, the "Inspectors") with an opportunity to review and comment on such Registration Statement and each Prospectus included therein (and each amendment or supplement thereto) and each Free Writing Prospectus to be filed with the Commission, subject to such documents being under the Company's control. The Company shall notify the Shareholders' Counsel and each seller of Registrable Securities pursuant to such Registration Statement of any stop order issued or threatened by the Commission and take all reasonable actions required to prevent the entry of such stop order or to remove it if entered;

(ii) prepare and file with the Commission such amendments and supplements to such Registration Statement and the Prospectus used in connection therewith as shall be necessary to keep such Registration Statement effective for the lesser of (x) such period which will terminate when all Registrable Securities covered by such Registration Statement have been sold (or, if such Registration Statement is an Automatic Shelf Registration Statement, on the first anniversary of the date of filing of such Automatic Shelf Registration Statement) or (y) the securities covered by such Registration Statement are no longer Registrable Securities;

(iii) furnish to each seller of Registrable Securities such number of copies of such Registration Statement, each amendment and supplement thereto, the Prospectus included in such Registration Statement (including each preliminary Prospectus), any Prospectus filed under Rule 424 under the Securities Act and any Free Writing Prospectus as each such seller may reasonably request in order to facilitate the disposition of the Registrable Securities owned by such seller; provided that the Company need not provide copies of exhibits to the Registration Statement.

(iv) use its commercially reasonable efforts to expeditiously register or qualify such Registrable Securities under such other securities or "blue sky" laws of California and New York if required by the laws of such states, and continue such registration or qualification in effect in such jurisdiction for as long as permissible pursuant to the laws of such jurisdiction, or for as long as any such seller requests or until all of such Registrable Securities are sold or are "covered securities" under the Securities Act, whichever is shortest, and do any and all other acts and things which may be reasonably necessary or advisable to enable any such seller to consummate the disposition of the Registrable Securities owned by such seller in such jurisdictions; provided, however, that the Company shall not be required to (x) qualify generally to do business in any jurisdiction where it would not otherwise be required to qualify but for this Section 3(b)(iv), (y) subject itself to taxation in any such jurisdiction or (z) consent to general service of process in any such jurisdiction;

(v) following its actual knowledge thereof, notify each seller of Registrable Securities: (A) when a Prospectus, any Prospectus supplement, any Free Writing Prospectus, a Registration Statement or a post-effective amendment to a Registration Statement has been filed with the Commission, and, with respect to a Registration Statement or any post-effective amendment, when the same has become effective; (B) of any request by the Commission for amendments or supplements to a Registration Statement, related Prospectus or Free Writing Prospectus or for additional information; (C) of the receipt by the Company of any notification with respect to the suspension of the qualification or exemption from qualification of any of the Registrable Securities for sale in any jurisdiction or the initiation or threatening of any proceedings for such purpose; and (D) of the existence of any fact or happening of any event of which the Company has knowledge which makes any statement of a material fact in such Registration Statement, related Prospectus or Free Writing Prospectus or any document incorporated or deemed to be incorporated therein by reference untrue or which would require the making of any changes in the Registration Statement, Prospectus or Free Writing Prospectus in order that, in the case of the Registration Statement, it will not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein not misleading, and that in the case of such Prospectus or Free Writing Prospectus, it will not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading, provided that the Company need not disclose any facts or events that have not been publicly disclosed by the Company;

(vi) upon the occurrence of any event contemplated by Section 3(b)(v)(D), as promptly as practicable, prepare a supplement or amendment to such Registration Statement, related Prospectus or Free Writing Prospectus and furnish to each seller of Registrable Securities a reasonable number of copies of such supplement to, or amendment of, such Registration Statement, Prospectus or Free Writing Prospectus as may be necessary so that, after delivery to the purchasers of such Registrable Securities, in the case of the Registration Statement, it will not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein not misleading, and that in the case of such Prospectus or Free Writing Prospectus, it will not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading;

(vii) enter into and perform customary agreements and take such other actions as are reasonably required in order to facilitate the disposition of such Registrable Securities and shall provide all reasonable cooperation, including causing counsel to the Company to deliver customary legal opinions in connection with any such underwriting agreements;

(viii) make available at reasonable times for inspection by any Inspector all financial and other records, pertinent corporate documents and properties of the Company and its subsidiaries (collectively, the "Records") as shall be reasonably necessary to enable them to exercise their due diligence responsibility, and cause the Company's and its subsidiaries' officers, directors, managers and employees, and the Company's independent registered public accounting firm, to supply all information reasonably requested by any such Inspector in connection with such Registration Statement. Records that the Company determines, in good faith, to be confidential and which it notifies the Inspectors are confidential shall not be disclosed by the Inspectors (and the Inspectors shall confirm their agreement in writing in advance to the Company if the Company shall so request) unless (x) the disclosure of such Records is necessary, in the Company's reasonable judgment, to avoid or correct a misstatement or omission in the Registration Statement, (y) the release of such Records is ordered pursuant to a subpoena or other order from a court of competent jurisdiction after exhaustion of all appeals therefrom or (z) the information in such Records was known to the Inspectors on a non-confidential basis prior to its disclosure by the Company or has been made generally available to the public. Each seller of Registrable Securities agrees that it shall, upon learning that disclosure of such Records is sought in a court of competent jurisdiction, promptly give notice to the Company and allow the Company, at the Company's expense, to undertake appropriate action to prevent disclosure of the Records deemed confidential;

(ix) if such sale is pursuant to an underwritten offering, obtain a "cold comfort" letter dated the effective date of the Registration Statement and the date of the closing under the underwriting agreement from the Company's independent registered public accounting firm in customary form and covering such matters of the type customarily covered by "cold comfort" letters as the managing underwriter reasonably requests;

(x) furnish, at the request of any seller of Registrable Securities on the date such securities are delivered to the underwriters for sale pursuant to such registration, an opinion, dated such date, of counsel representing the Company for the purposes of such registration, addressed to the underwriters, covering such legal matters with respect to the registration in respect of which such opinion is being given as the underwriters, may reasonably request and are customarily included in such opinions;

(xi) cause any Shares included in the Registration Statement to be listed on each securities exchange on which the Shares are then listed. The Company shall pay all fees and expenses in connection with satisfying its obligation to list such Shares.

(xii) make all required filings of all Prospectuses and Free Writing Prospectuses with the Commission;

(xiii) make all required filing fee payments in respect of any Registration Statement or Prospectus used under this Agreement (and any offering covered thereby); and

(xiv) take all other steps reasonably necessary to effect the registration of the Registrable Securities contemplated hereby.

(c) Seller Requirements. In connection with any offering under any Registration Statement under this Agreement, each Shareholder (i) shall promptly furnish to the Company in writing such information with respect to the Shareholder and the intended method of disposition of its Registrable Securities as the Company may reasonably request or as may be required by law or regulations for use in connection with any related Registration Statement or Prospectus (or amendment or supplement thereto) and all information required to be disclosed in order to make the information previously furnished to the Company by the Shareholder not contain a material misstatement of fact or necessary to cause such Registration Statement or Prospectus (or amendment or supplement thereto) not to omit a material fact with respect to the Shareholder necessary in order to make the statements therein not misleading; (ii) shall comply with the Securities Act and the Exchange Act and all applicable state securities laws and comply with all applicable regulations in connection with the registration and the disposition of the Registrable Securities; and (iii) shall not use any Free Writing Prospectus without the prior written consent of the Company. If any seller of Registrable Securities fails to provide such information required to be included in such Registration Statement by applicable securities laws or otherwise necessary or desirable in connection with the disposition of such Registrable Securities, within ten (10) calendar days after written request therefor, the Company may exclude such seller's Registrable Securities from the registration statement.

(d) Exception for Valid Business Reason. Notwithstanding any other provision of this Section 3, if the Board of Directors of the Company, in its good faith judgment, determines that any registration of Registrable Securities should not be made or continued because it would materially interfere with any material financing, acquisition, reorganization or merger or other transaction involving the Company or require the Company to disclose any material nonpublic information which would reasonably be likely to be detrimental to the Company (a "Valid Business Reason"), (x) the Company may postpone filing a Registration Statement (but not the preparation of the Registration Statement) until the occurrence of the Valid Business Reason or until the Valid Business Reason no longer exists, and (y) in case a Registration Statement has been filed, the Company may postpone amending or supplementing such Registration Statement or requesting that the Registration Statement become effective under the Securities Act. The Company shall give written notice to all Shareholders of its determination to postpone filing, amending, supplementing, requesting effectiveness of a Registration Statement, and of the fact that the Valid Business Reason for such postponement no longer exists, in each case, promptly after the occurrence thereof.

(e) Notice to Discontinue. Each Shareholder agrees that, upon receipt of any notice from the Company of the happening of any event of the kind described in Section 3(b)(v)(D), the Shareholder shall forthwith discontinue disposition of Registrable Securities pursuant to the Registration Statement covering such Registrable Securities until the Shareholder's receipt of the copies of the supplemented or amended Prospectus or Free Writing Prospectus contemplated by Section 3(b)(vi) (or if no supplemental or amended prospectus or Free Writing Prospectus is required, upon confirmation from the Company that use of the Prospectus or Free Writing Prospectus is once again permitted) and, if so directed by the Company, the Shareholder shall deliver to the Company (at the Company's expense) all copies, other than permanent file copies then in the Shareholder's possession, of the Prospectus or Free Writing Prospectus covering such Registrable Securities which is current at the time of receipt of such notice.

(f) Registration Expenses. The Company shall pay all expenses arising from or incident to its performance of, or compliance with, this Agreement, including, without limitation, (i) Commission filing fees, (ii) all fees and expenses incurred in complying with state securities or "blue sky" laws (including reasonable fees, charges and disbursements of counsel to any underwriter incurred in connection with "blue sky" qualifications of the Registrable Securities as may be set forth in any underwriting agreement), (iii) all printing, messenger and delivery expenses, and (iv) the fees, charges and expenses of counsel to the Company and of its independent registered public accounting firm and any other accounting fees, charges and expenses incurred by the Company (including, without limitation, any expenses arising from any "cold comfort" letters and the reasonable and documented legal fees, charges and expenses of Shareholder's Counsel and regardless of whether such Registration Statement is declared effective. All of the expenses described in the preceding sentence of this Section 3(f) are referred to herein as "Registration Expenses".

4. Indemnification; Contribution

(a) Indemnification by the Company. The Company agrees to indemnify and hold harmless the Shareholders, and each of their respective partners, directors, officers, Affiliates, stockholders, members, employees, trustees, legal counsel and accountants and each Person who controls (within the meaning of Section 15 of the Securities Act) any Shareholder, from and against any and all losses, claims, damages, liabilities and expenses, or any action or proceeding in respect thereof (including reasonable costs of investigation and reasonable attorneys' fees and expenses) (each, a "Liability" and collectively, "Liabilities"), arising out of or based upon (a) in the case of the Registration Statement or any amendment thereto, the Disclosure Package, the Prospectus, any Free Writing Prospectus, or in any supplement thereto, any untrue, or allegedly untrue, statement of a material fact or omission, or alleged omission, to state any material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading, and (b) any violation or alleged violation by the Company of the Securities Act, the Exchange Act or any state securities law, or any rule or regulation thereunder, in connection with the performance of its obligations under this Agreement; provided, however, that the Company shall not be held liable in any such case to the extent that any such Liability arises out of or is based upon an untrue statement or alleged untrue statement or omission or alleged omission contained in such Disclosure Package, Registration Statement, Prospectus, Free Writing Prospectus or such amendment or supplement thereto solely in reliance upon and in conformity with information concerning any Shareholder furnished in writing to the Company by or on behalf of a Shareholder expressly for use therein, including, without limitation, the information furnished to the Company pursuant to Section 3(c). The Company shall also provide customary indemnities to any underwriters of the Registrable Securities, their officers, directors and employees and each Person who controls such underwriters (within the meaning of Section 15 of the Securities Act) to the same extent as provided above with respect to the indemnification of the Shareholders.

(b) Indemnification by Shareholders. In connection with any offering in which any Shareholder is participating pursuant to this Agreement, each participating Shareholder agrees severally to indemnify and hold harmless the Company, any underwriter retained by the Company, each of their respective partners, directors, officers, Affiliates, stockholders, managers, members, employees, trustees, legal counsel and accountants, and each Person who controls the Company or such underwriter (within the meaning of Section 15 of the Securities Act) to the same extent as the foregoing indemnity from the Company to the Shareholders, but only to the extent that Liabilities arise out of or are based upon a statement or alleged statement or an omission or alleged omission that was made solely in reliance upon and in conformity with information with respect to such Shareholder furnished in writing to the Company by or on behalf of the Shareholder expressly for use in such Disclosure Package, Registration Statement, Prospectus, Free Writing Prospectus or such amendment or supplement thereto, including, without limitation, the information furnished to the Company pursuant to Section 3(c). In no event shall the liability of a Shareholder hereunder be greater in amount than the net proceeds received by the Shareholder upon the sale of the Registrable Securities giving rise to such indemnification obligation except in the case of fraud by the Shareholder.

(c) Conduct of Indemnification Proceedings. Any Person entitled to indemnification or contribution hereunder (the "Indemnified Party") agrees to give prompt written notice to the indemnifying party (the "Indemnifying Party") after the receipt by the Indemnified Party of any written notice of the commencement of any action, suit, proceeding or investigation or threat made in writing for which the Indemnified Party intends to claim indemnification or contribution pursuant to this Agreement; provided, however, that the failure to so notify the Indemnifying Party shall not relieve the Indemnifying Party of any Liability that it may have to the Indemnified Party hereunder (except to the extent that the Indemnifying Party is materially prejudiced or otherwise forfeits substantive rights or defenses by reason of such failure). If notice of commencement of any such action is given to the Indemnifying Party as provided in this Section 4(c), the Indemnifying Party shall be entitled to participate in and, to the extent it may wish, jointly with any other Indemnifying Party similarly notified, to assume the defense of such action at its own expense, with counsel chosen by it and reasonably satisfactory to such Indemnified Party. Each Indemnified Party shall have the right to employ separate counsel in any such action and participate in the defense thereof, but the reasonable and documented out-of-pocket fees and expenses of such counsel shall be paid by the Indemnified Party unless (i) the Indemnifying Party agrees to pay the same, (ii) the Indemnifying Party fails to assume the defense of such action with counsel reasonably satisfactory to the Indemnified Party or (iii) the named parties to any such action (including any impleaded parties) include both the Indemnifying Party and the Indemnified Party and such parties have been advised by such counsel that either (x) representation of such Indemnified Party and the Indemnifying Party by the same counsel would be inappropriate under applicable standards of professional conduct or (y) there may be one or more legal defenses available to the Indemnified Party which are different from or additional to those available to the Indemnifying Party. In any of such cases, the Indemnifying Party shall not have the right to assume the defense of such action on behalf of such Indemnified Party, it being understood, however, that the Indemnifying Party shall not be liable for the reasonable and documented out-of-pocket fees and expenses of more than one separate firm of attorneys (in addition to any local counsel) for all Indemnified Parties and all such reasonable and documented out-of-pocket fees and expenses shall be reimbursed as incurred. No Indemnifying Party shall be liable for any settlement entered into without its written consent, which consent shall not be unreasonably withheld. No Indemnifying Party shall, without the consent of such Indemnified Party, effect any settlement of any pending or threatened proceeding in respect of which such Indemnified Party is a party and indemnity has been sought hereunder by such Indemnified Party, unless such settlement includes an unconditional release of such Indemnified Party from all liability for claims that are the subject matter of such proceeding.

(d) Contribution. (i) If the indemnification provided for in this Section 4 from the Indemnifying Party is unavailable to an Indemnified Party hereunder or insufficient to hold harmless an Indemnified Party in respect of any Liabilities referred to herein, then each Indemnifying Party, in lieu of indemnifying such Indemnified Party, shall contribute to the amount paid or payable by such Indemnified Party as a result of such Liabilities in such proportion as is appropriate to reflect the relative fault of the Indemnifying Party and Indemnified Party in connection with the actions which resulted in such Liabilities, as well as any other relevant equitable considerations. The relative faults of such Indemnifying Party and Indemnified Party shall be determined by reference to, among other things, whether any action in question, including any untrue or alleged untrue statement of a material fact or omission or alleged omission to state a material fact, has been made by, or relates to information supplied by, such Indemnifying Party or Indemnified Party, and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such action. The amount paid or payable by a party as a result of the Liabilities referred to above shall be deemed to include, subject to the limitations set forth in Sections 4(a), 4(b), and 4(c) , any reasonable and documented out-of-pocket legal or other fees, charges or expenses reasonably incurred by such party in connection with any investigation or proceeding.

(ii) The parties hereto agree that it would not be just and equitable if contribution pursuant to this Section 4(d)) were determined by pro rata allocation or by any other method of allocation which does not take account of the equitable considerations referred to in the immediately preceding paragraph. No Person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any Person who was not guilty of such fraudulent misrepresentation. In no event shall a Shareholder be required to contribute an amount under this Section 4(d) in excess of the net proceeds received by the Shareholder upon the sale of the Shareholder's Registrable Securities pursuant to the Registration Statement giving rise to such contribution obligation, except in the case of fraud by the Shareholder.

5. Reports Under Exchange Act

(a) With a view to making available to the Shareholders the benefits of Rule 144 promulgated under the Securities Act and any other rule or regulation of the Commission that may at any time permit the Shareholders to sell Registrable Shares of the Company to the public without registration, the Company agrees for the period of at least one year from the date hereof, to:

(i) Make and keep public information available, as those terms are used in Rule 144, at all times;

(ii) File with the Commission in a timely manner all reports and other documents required of the Company under the Exchange Act and the rules and regulations of any applicable securities exchanges;

(iii) Furnish to the Shareholders, so long as the Shareholders own any Registrable Shares, forthwith on request, (i) a written statement by the Company that it has complied with the reporting requirements of Rule 144 and the Exchange Act, and (ii) a copy of the most recent annual or quarterly report of the Company filed under the Exchange Act; and

(iv) Undertake any additional actions reasonably necessary to maintain the availability of the use of Rule 144 for the resale of the Registrable Securities.

6. Miscellaneous

(a) Share Splits, etc. The provisions of this Agreement shall be appropriately adjusted for any share dividends, splits, reverse splits, combinations recapitalizations and the like occurring after the date.

(b) Amendments and Waivers. Except as otherwise provided herein, the provisions of this Agreement may not be amended, modified or supplemented, and waivers or consents to departures from the provisions may not be given unless consented to in writing by the Company and the Shareholders.

(c) Notices. All notices, demands and other communications provided for or permitted hereunder shall be made in writing and shall be made by telecopy, electronic mail, air courier service or personal delivery:

If to the Company:

Asterias Biotherapeutics, Inc.
230 Constitution Drive
Menlo Park, California 95402
Attention: Robert Peabody, Chief Financial Officer
rpeabody@biotimemail.com

with a copy to:
Thompson, Welch, Soroko & Gilbert LLP
235 Pine Street, 13th Floor
San Francisco, California 94104
Attention: Richard S. Soroko
rsoroko@twsglaw.com

If to a Shareholder, at the most recent address for such Shareholder as shown in the Company's register of its stockholders.

All such notices, demands and other communications shall be deemed to have been duly given when delivered in the manner provided in this Section 6(c). Any party may by notice given in accordance with this Section 6(c) designate another address or Person for receipt of notices hereunder.

(d) Permitted Assignees; Third Party Beneficiaries. This Agreement shall inure to the benefit of and be binding upon the Company and the Shareholders (including the Permitted Assignees and Pledgees of Shareholders as provided in Section 2(d)(i)), and, except as provided in Section 4, no other Person is intended to be a beneficiary of this Agreement.

(e) Counterparts. This Agreement may be executed in any number of counterparts and by the parties hereto in separate counterparts, each of which when so executed shall be deemed to be an original and all of which taken together shall constitute one and the same agreement.

(f) Headings. The headings in this Agreement are for convenience of reference only and shall not limit or otherwise affect the meaning.

(g) Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the state of California, without regard to the principles of conflicts of law.

(h) Jurisdiction. (i) Any action or proceeding against any party hereto relating in any way to this Agreement or the transactions contemplated hereby may be brought and enforced in the federal or state courts in the State of California, and each party, on behalf of itself and its respective successors and assigns, irrevocably consents to the jurisdiction of each such court in respect of any such action or proceeding. Each party, on behalf of itself and its respective successors and assigns, irrevocably consents to the service of process in any such action or proceeding by the mailing of copies thereof by registered or certified mail, postage prepaid, return receipt requested, to such person or entity at the address for such person or entity set forth in Section 6(c) or such other address such person or entity shall notify the other in writing. The foregoing shall not limit the right of any person or entity to serve process in any other manner permitted by law or to bring any action or proceeding, or to obtain execution of any judgment, in any other jurisdiction.

(ii) Each party, on behalf of itself and its respective successors and assigns, hereby irrevocably waives any objection that it may now or hereafter have to the laying of venue of any action or proceeding arising under or relating to this Agreement or the transactions contemplated hereby in any court located in the State of California or located in any other jurisdiction chosen by the Company in accordance with Section 6(h)(i). Each party, on behalf of itself and its respective successors and assigns, hereby irrevocably waives any claim that a court located in the State of California is not a convenient forum for any such action or proceeding.

(iii) Each party, on behalf of itself and its respective successors and assigns, hereby irrevocably waives, to the fullest extent permitted by applicable United States federal and state law, all immunity from jurisdiction, service of process, attachment (both before and after judgment) and execution to which it might otherwise be entitled in any action or proceeding relating in any way to this Agreement or the transactions contemplated hereby in the courts of the State of California, of the United States or of any other country or jurisdiction, and hereby waives any right he might otherwise have to raise or claim or cause to be pleaded any such immunity at or in respect of any such action or proceeding.

(i) Severability. If any one or more of the provisions contained herein, or the application thereof in any circumstance, is held invalid, illegal or unenforceable in any respect for any reason, the validity, legality and enforceability of any such provision in every other respect and of the remaining provisions shall not be in any way impaired.

(j) Rules of Construction. Unless the context otherwise requires, references to sections or subsections refer to sections or subsections of this Agreement. Terms defined in the singular have a comparable meaning when used in the plural, and vice versa.

(k) Entire Agreement. This Agreement is intended by the parties as a final expression of their agreement and intended to be a complete and exclusive statement of the agreement and understanding of the parties hereto with respect to the subject matter. There are no restrictions, promises, representations, warranties or undertakings with respect to the subject matter, other than those set forth or referred to herein. This Agreement supersedes all prior agreements and understandings among the parties with respect to such subject matter.

(l) Further Assurances. Each of the parties shall execute such documents and perform such further acts as may be reasonably required or desirable to carry out or to perform the provisions of this Agreement.

(m) Other Agreements. Nothing contained in this Agreement shall be deemed to be a waiver of, or release from, any obligations any party hereto may have under, or any restrictions on the transfer of Registrable Securities or other securities of the Company imposed by, any other agreement.

IN WITNESS WHEREOF, the undersigned have executed, or have caused to be executed, this Registration Rights Agreement on the date first written above.

ASTERIAS BIOTHERAPEUTICS, INC.

By: s/Pedro Lichtinger
Pedro Lichtinger
Title: President and Chief Executive Officer

SHAREHOLDERS:

s/Jay J. Miller
Jay J. Miller, Trustee of the
George Karfunkel 2007 Grantor Trust #1

Broadwood Partners, L.P.

By: Broadwood Capital, Inc.
General Partner

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

ANNEX A

[Name and Address of Transferee]

_____
[Address]

[Name and Address of Transferor]

_____, 20__

Ladies and Gentlemen:

Reference is made to the Registration Rights Agreement, dated as of June __, 2014 (the "Registration Rights Agreement"), by and among Asterias Biotherapeutics, Inc., a Delaware corporation, and the persons named therein as Shareholders. All capitalized terms used herein but not otherwise defined shall have the meanings given to them in the Registration Rights Agreement.

In connection with the transfer by **[Name of Transferor]** of Registrable Securities with associated registration rights under the Registration Rights Agreement to **[Name of Transferee]** as transferee (the "Transferee"), the Transferee hereby agrees to be bound as a Shareholder by the provisions of the Registration Rights Agreement as provided under Section 2(d)(i)) thereto.

This consent shall be governed by California law.

Yours sincerely,

[Name of Transferee]

By: _____
Name:
Title:

SCHEDULE I

Shareholders

Jay J. Miller, Trustee of the George Karfunkel 2007 Grantor Trust #1

Broadwood Partners, L.P.

Exhibit 10.7

EMPLOYMENT AGREEMENT

THIS EMPLOYMENT AGREEMENT ("Agreement") is made as of June 9, 2014 by and between Asterias Biotherapeutics, Inc. ("Asterias"), a Delaware corporation, and Pedro Lichtinger ("Executive").

1. Engagement; Position and Duties.

(a) Asterias agrees to employ Executive in the position described on Exhibit A (which Exhibit A is a part of this Agreement) effective as of the date of this Agreement. Executive shall perform the duties and functions described on Exhibit A and such other duties as the Board of Directors of Asterias may from time to time determine. Executive shall be employed by Asterias on a full-time basis unless Exhibit A provides for part-time employment. Executive shall devote Executive's best efforts, skills, and abilities to the business of Asterias and its Related Companies pursuant to, and in accordance with, business policies and procedures, as fixed from time to time by the Board of Directors (the "Policies"). Executive covenants and agrees that Executive will faithfully adhere to and fulfill the Policies, including any changes to the Policies that may be made in the future. Executive shall be provided with a copy of Asterias' employee manual (the "Manual") which contains the Policies. Asterias may change its Policies from time to time, in which case Executive will be notified of the changes in writing by a memorandum, a letter, or an update or revision of the Manual. Asterias expressly agrees that the Executive shall be permitted to continue his service on the following Boards of Directors: (1) The Boys and Girls Clubs of America, (2) Laboratorios Sanfer, SA de CV, and (3) Brazil Foundation.

(b) Performance of Services for Related Companies. In addition to the performance of services for Asterias, Executive shall, to the extent so required by Asterias, also perform services for one or more members of a consolidated group of which Asterias is a part ("Related Company"), provided that such services are consistent with the kind of services Executive performs or may be required to perform for Asterias under this Agreement. If Executive performs any services for any Related Company, Executive shall not be entitled to receive any compensation or remuneration in addition to or in lieu of the compensation and remuneration provided under this Agreement on account of such services for the Related Company. The Policies will govern Executive's employment by Asterias and any Related Company for which Executive is asked to provide Services. In addition, Executive covenants and agrees that Executive will faithfully adhere to such additional policies as may be established from time to time by the board of directors of any Related Company for which Executive performs services, to the extent that such policies and procedures are provided to Executive and differ from or are in addition to the Policies adopted by Asterias.

(c) No Conflicting Obligations. Executive represents and warrants to Asterias and each Related Company that Executive is under no obligations or commitments, whether contractual or otherwise, that are inconsistent with Executive's obligations under this Agreement or that would prohibit Executive, contractually or otherwise, from performing Executive's duties as under this Agreement and the Policies.

(d) No Unauthorized Use of Third Party Intellectual Property. Executive represents and warrants to Asterias and each Related Company that Executive will not use or disclose, in connection with Executive's employment by Asterias or any Related Company, any patents, trade secrets, confidential information, or other proprietary information or intellectual property as to which any other person has any right, title or interest, except to the extent that Asterias or a Related Company holds a valid license or other written permission for such use from the owner(s) thereof. Executive represents and warrants to Asterias and each Related Company that Executive has returned all property and confidential information belonging to any prior employer.

2. Compensation

(a) ***Salary***. During the term of this Agreement, Asterias shall pay to the Executive the salary shown on Exhibit A. Executive's salary shall be paid in equal semi-monthly installments, consistent with Asterias' regular salary payment practices. Executive's salary may be increased from time-to-time by Asterias, Executive's salary shall be reviewed on an annual basis, or more often if appropriate, and shall be set consistent with a compensation philosophy which targets the 50th percentile of a group of comparator companies selected by the Board of Directors or a compensation committee of the Board of Directors.

(b) ***Bonus***. Executive shall receive an annual bonus opportunity. Such bonus shall be determined based on both (1) a compensation philosophy which targets the 50th percentile of a group of comparator companies selected by the Board of Directors or a compensation committee of the Board of Directors and (2) the extent to which Executive achieved the goals or milestones for the year as reasonably set by the Board.

(c) ***Expense Reimbursements***. Asterias or a Related Company shall reimburse Executive for reasonable travel and other business expenses (but not expenses of commuting to work) incurred by Executive in the performance of Executive's duties under this Agreement, subject to the Policies and procedures in effect from time to time, and provided that Executive submits supporting vouchers, receipts, or other documentation.

(d) Equity and Benefit Plans. Executive is receiving certain stock options and Restricted Stock as set forth in Exhibit A. Every year, the Board of Directors of Asterias will consider whether to grant Executive additional stock options or Restricted Stock consistent with an overall compensation philosophy which targets the 50th percentile of a group of comparator companies selected by the Board of Directors or a compensation committee of the Board of Directors. In addition, Executive may be eligible (to the extent Executive qualifies) to participate in certain retirement, pension, life, health, accident and disability insurance, stock option or other similar employee benefit plans which may be adopted by Asterias (or a Related Company) for its employees. Asterias and any Related Company have the right, at any time and without any amendment of this Agreement, and without prior notice to or consent from Executive, to adopt, amend, change, or terminate any such benefit plans that may now be in effect or that may be adopted in the future, in each case without any further financial obligation to Executive. Any benefits to which Executive may be entitled under any benefit plan shall be governed by the terms and conditions of the applicable benefit plan, and any related plan documents, as in effect from time to time. If Executive receives any grant of stock options or restricted stock under any stock option, restricted stock, or stock purchase plan of Asterias or any Related Company, the terms and conditions of the stock options or restricted stock, and Executive's rights with respect to the stock options or restricted stock, shall be governed by (i) the terms of the applicable stock option, restricted stock, or stock purchase plan, as the same may be amended from time to time, and (ii) the terms and conditions of any stock option, restricted stock, or stock purchase agreement and related agreements that Executive may sign or be required to sign with respect to the stock options or restricted stock.

(e) ***Vacation; Sick Leave***. Executive shall be entitled to the number of days of vacation and sick leave (without reduction in compensation) during each calendar year shown on Exhibit A or as may be provided by the Policies (whichever is greater). Executive's vacation shall be taken at such time as is consistent with the needs and Policies of Asterias and its Related Companies. All vacation days and sick leave days shall accrue annually based upon days of service. Executive's right to leave from work due to illness is subject to the Policies and the provisions of this Agreement governing termination due to disability, sickness or illness. The Policies governing the disposition of unused vacation days and sick leave days remaining at the end of Asterias' fiscal year shall govern whether unused vacation days or sick leave days will be paid, lost, or carried over into subsequent fiscal years.

3. Competitive Activities. During the term of Executive's employment, and for one year thereafter, Executive shall not, for Executive or any third party, directly or indirectly employ, solicit for employment or recommend for employment any person employed by Asterias or any Related Company. During the term of Executive's employment, Executive shall not, directly or indirectly as an employee, contractor, officer, director, member, partner, agent, or equity owner, engage in any activity or business that competes or could reasonably be expected to compete with the business of Asterias or any Related Company, except to the extent such activities by Executive are approved by the Board of Directors of Asterias. Executive acknowledges that there is a substantial likelihood that the activities described in this Section would (a) involve the unauthorized use or disclosure of Asterias' or a Related Company's Confidential Information and that use or disclosure would be extremely difficult to detect, and (b) result in substantial competitive harm to the business of Asterias or a Related Company. Executive has accepted the limitations of this Section as a reasonably practicable means of preventing such use or disclosure of Confidential Information and preventing such competitive harm.

4. Inventions/Intellectual Property/Confidential Information

(a) As used in this Agreement, "Intellectual Property" means any and all inventions, discoveries, formulas, improvements, writings, designs, or other intellectual property. Any and all Intellectual Property relating to or in any way pertaining to or connected with the systems, products, apparatus, or methods employed, manufactured, constructed, or researched by Asterias, or any Related Company, which Executive may conceive or make while performing services for Asterias or a Related Company shall be the sole and exclusive property of Asterias or the applicable Related Company. Executive hereby irrevocably assigns and transfers to Asterias, or a Related Company, all rights, title and interest in and to all Intellectual Property that Executive may now or in the future have under patent, copyright, trade secret, trademark or other law, in perpetuity or for the longest period otherwise permitted by law, without the necessity of further consideration. Asterias and the Related Companies will be entitled to obtain and hold in their own name all copyrights, patents, trade secrets, trademarks and other similar registrations with respect to such Intellectual Property.

(b) ***Moral Rights.*** To the extent allowed by law, the rights to Intellectual Property assigned by Executive to Asterias or any Related Company includes all rights of paternity, integrity, disclosure and withdrawal, and any other rights that may be known as or referred to as "moral rights," "artist's rights," "droit moral," or the like (collectively "Moral Rights"). To the extent Executive retains any such Moral Rights under applicable law, Executive hereby ratifies and consents to any action that may be taken with respect to such Moral Rights by or authorized by Asterias or a Related Company and agrees not to assert any Moral Rights with respect thereto. Executive shall confirm in writing any such ratifications, consents, and agreements from time to time as requested by Asterias or Related Company.

(c) ***Execution of Documents; Power of Attorney.*** Executive agrees to execute and sign any and all applications, assignments, or other instruments which Asterias or a Related Company may deem necessary in order to enable Asterias or a Related Company, at its expense, to apply for, prosecute, and obtain patents of the United States or foreign countries for the Intellectual Property, or in order to assign or convey to, perfect, maintain or vest in Asterias or a Related Company the sole and exclusive right, title, and interest in and to the Intellectual Property. If Asterias or a Related Company is unable after reasonable efforts to secure Executive's signature, cooperation or assistance in accordance with the preceding sentence, whether because of Executive's incapacity or any other reason whatsoever, Executive hereby designates and appoints Asterias or any Related Company or its designee as Executive's agent and attorney-in-fact, to act on Executive's behalf, to execute and file documents and to do all other lawfully permitted acts necessary or desirable to perfect, maintain or otherwise protect Asterias' or a Related Company's rights in the Intellectual Property. Executive acknowledges and agrees that such appointment is coupled with an interest and is irrevocable.

(d) ***Disclosure of Intellectual Property***. Executive agrees to disclose promptly to Asterias or a Related Company all Intellectual Property which Executive may create or conceive solely, jointly, or commonly with others. This paragraph is applicable whether or not the Intellectual Property was made under the circumstances described in paragraph (a) of this Section. Executive agrees to make such disclosures understanding that they will be received in confidence and that, among other things, they are for the purpose of determining whether or not rights to the related Intellectual Property is the property of Asterias or a Related Company.

(e) ***Limitations.*** The obligations provided for by this Section 4, except for the requirements as to disclosure in paragraph 4(d), do not apply to any rights Executive may have acquired in connection with Intellectual Property for which no equipment, supplies, facility, or trade secret information of Asterias or a Related Company was used and which was developed entirely on the Executive's own time and (i) which at the time of conception or reduction to practice does not relate directly or indirectly to the business of Asterias or a Related Company, or to the actual or demonstrable anticipated research or development activities or plans of Asterias or a Related Company, or (ii) which does not result from any work performed by Executive for Asterias or a Related Company. All Intellectual Property that (1) results from the use of equipment, supplies, facilities, or trade secret information of Asterias or a Related Company; (2) relates, at the time of conception or reduction to practice of the invention, to the business of Asterias or a Related Company, or actual or demonstrably anticipated research or development of Asterias or a Related Company; or (3) results from any work performed by Executive for Asterias or a Related Company shall be assigned and is hereby assigned to Asterias or the applicable Related Company. The parties understand and agree that this limitation is intended to be consistent with California Labor Code, Section 2870, a copy of which is attached as Exhibit B. If Executive wishes to clarify that something created by Executive prior to Executive's employment by Asterias or a Related Company that relates to the actual or proposed business of Asterias or a Related Company is not within the scope of this Agreement, Executive has listed it on Exhibit C in a manner that does not violate any third party rights.

(f) ***Confidential and Proprietary Information***. During Executive's employment, Executive will have access to trade secrets and confidential information of Asterias and one or more Related Companies. Confidential Information means all information and ideas, in any form, relating in any manner to matters such as: products; formulas; technology and know-how; inventions; clinical trial plans and data; business plans; marketing plans; the identity, expertise, and compensation of employees and contractors; systems, procedures, and manuals; customers; suppliers; joint venture partners; research collaborators; licensees; and financial information. Confidential Information also shall include any information of any kind, whether belonging to Asterias, a Related Company, or any third party, that Asterias or a Related Company has agreed to keep secret or confidential under the terms of any agreement with any third party. Confidential Information does not include: (i) information that is or becomes publicly known through lawful means other than unauthorized disclosure by Executive; (ii) information that was rightfully in Executive's possession prior to Executive's employment with Asterias and was not assigned to Asterias or a Related Company or was not disclosed to Executive in Executive's capacity as a director or other fiduciary of Asterias or a Related Company; or (iii) information disclosed to Executive, after the termination of Executive's employment by Asterias, without a confidential restriction by a third party who rightfully possesses the information and did not obtain it, either directly or indirectly, from Asterias or a Related Company, and who is not subject to an obligation to keep such information confidential for the benefit of Asterias, a Related Company, or any third party with whom Asterias or a Related Company has a contractual relationship. Executive understands and agrees that all Confidential Information shall be kept confidential by Executive both during and after Executive's employment by Asterias or any Related Company. Executive further agrees that Executive will not, without the prior written approval by Asterias or a Related Company, disclose any Confidential Information, or use any Confidential Information in any way, either during the term of Executive's employment or at any time thereafter, except as required by Asterias or a Related Company in the course of Executive's employment.

5. Termination of Employment. Executive understands and agrees that Executive's employment has no specific term. This Agreement, and the employment relationship, are **"at will"** and may be terminated by Executive or by Asterias (and the employment of Executive by any Related Company by be terminated by the Related Company) with or without cause at any time by notice given orally or in writing. Except as otherwise agreed in writing or as otherwise provided in this Agreement, upon termination of Executive's employment, Asterias and the Related Companies shall have no further obligation to Executive by way of compensation or otherwise as expressly provided in this Agreement or in any separate employment agreement that might then exist between Executive and a Related Company.

(a) ***Payments Due Upon Termination of Employment***. Upon termination of Executive's employment with Asterias and all Related Companies at any time and for any reason, Executive will be entitled to receive only the severance benefits set forth below, but Executive will not be entitled to any other compensation, award, or damages with respect to Executive's employment or termination of employment.

(i) *Termination for Cause, Death, Disability, or Resignation*. In the event that the employment of Executive is terminated for Cause, or is terminated as a result of death, Disability, or resignation, Executive will be entitled to receive payment for all accrued but unpaid salary, accrued but unpaid bonus, if any, and vacation accrued as of the date of termination of Executive's employment. Executive will not be entitled to any cash severance benefits or vesting of any stock options or other equity or cash awards.

(ii) *Termination Without Cause and Resignation for Good Reason*. In the event that the employment of the Executive is terminated by Asterias without "Cause" as defined in this Agreement or resigns for "Good Reason," otherwise than within twelve (12) months following a "change in control" as defined in this Agreement, Executive shall receive payment for all accrued but unpaid salary, accrued but unpaid bonus, if any, and vacation accrued as of the date of termination of Executive's employment, and as severance compensation (A) three months of base salary if Executive's employment is terminated within the first 12 months of employment, or (B) six months of base salary if Executive's employment is terminated after 12 months of employment, and (C) accelerated vesting of fifty percent (50%) of the then unvested stock options granted to Executive if Executive has been employed by Asterias for at least 12 months. The severance compensation described in clauses (A) and (B) of this paragraph may be paid in a lump sum or, at the election of Asterias, in installments consistent with the payment of Executive's salary while employed by Asterias, subject to such payroll deductions and withholdings as are required by law. This paragraph shall not apply to (x) termination of Executive's employment by a Related Company if Executive remains employed by Asterias, or (y) termination of Executive's employment by Asterias if Executive remains employed by a Related Company.

(iii) *Change of Control*. In the event Asterias (or any successor in interest to Asterias that has assumed Asterias' obligation under this Agreement) terminates Executive's employment without "Cause" or Executive resigns for "Good Reason" within twelve (12) months following a Change in Control, Executive will be entitled to receive payment for all accrued but unpaid salary, accrued but unpaid bonus, if any, and vacation accrued as of the date of termination of Executive's employment, and as severance compensation (A) payment of an amount equal to 12 months of base salary, which shall be paid in a lump sum, subject to such payroll deductions and withholdings as are required by law, (B) accelerated vesting of one hundred percent (100%) of the then unvested stock options, and (C) expiration of the restrictions on the shares of Restricted Stock granted to Executive. This paragraph shall not apply to (x) termination of Executive's employment by a Related Company if Executive remains employed by Asterias or a successor in interest, or (y) termination of Executive's employment by Asterias or a successor in interest if Executive remains employed by a Related Company.

(b) ***Release***. Any other provision of this Agreement notwithstanding, paragraphs (a)(ii) and (a)(iii) of this Section shall not apply unless the Executive (i) has executed a general release of all claims against Asterias or its successor in interest and the Related Companies (in a form prescribed by Asterias or its successor in interest), (ii) has returned all property in the Executive's possession belonging Asterias or its successor in interest and any Related Companies, and (iii) if serving as a director has tendered his written resignation as a director as provided in Section 7.

(c) ***Definitions***. For purposes of this Section, the following definitions shall apply:

(i) "Affiliated Group" means (A) a Person and one or more other Persons in control of, controlled by, or under common control with such Person; and (B) two or more Persons who, by written agreement among them, act in concert to acquire Voting Securities entitling them to elect a majority of the directors of Asterias.

(ii) "Cause" means: (A) commission of any act of fraud as determined by the Asterias Board of Directors in good faith after providing Executive with reasonable written notice of the specific act(s) at issue and a fair opportunity to present his position (with the involvement of counsel) to the Board prior to any decision being reached; (B) commission of any act of gross misconduct or dishonesty with respect to Asterias or any Related Company which causes material harm to either Asterias or any Related Company ; (C) indictment for, conviction of, or plea of guilty or "no contest" to, any felony; (D material breach of any provision of this Agreement or of any proprietary information and inventions agreement with Asterias or any Related Company; (E) failure to follow the lawful directions of the Board of Directors of Asterias or any Related Company after receiving written notice of the specific failure and fifteen (15) days in which to cure such failure; (F) chronic alcohol or drug abuse; (G) obtaining, in connection with any transaction in which Asterias, any Related Company, or any of Asterias' affiliates is a party, a material undisclosed (to the Asterias Board of Directors or an audit committee of the Board of Directors) financial benefit for Executive or for any member of Executive's immediate family or for any corporation, partnership, limited liability company, or trust in which Executive or any member of Executive's immediate family owns a material financial interest; or (H) harassing or discriminating against, or participating or assisting in the harassment of or discrimination against, any employee of Asterias (or a Related Company or an affiliate of Asterias) based upon gender, race, religion, ethnicity, or nationality as determined by the Asterias Board of Directors in good faith after providing Executive with reasonable written notice of the specific act(s) at issue and a fair opportunity to present his position (with the involvement of counsel) to the Board prior to any decision being reached.

(iii) "Change of Control" means (A) the acquisition of Voting Securities of Asterias by a Person or an Affiliated Group entitling the holder thereof to elect a majority of the directors of Asterias; provided, that an increase in the amount of Voting Securities held by a Person or Affiliated Group who on the date of this Agreement owned beneficially owned (as defined in Section 13(d) of the Securities Exchange Act of 1934, as amended, and the regulations thereunder) more than 10% of the Voting Securities shall not constitute a Change of Control; and provided, further, that an acquisition of Voting Securities by one or more Persons acting as an underwriter in connection with a sale or distribution of such Voting Securities shall not constitute a Change of Control under this clause (A); (B) the sale of all or substantially all of the assets of Asterias; or (C) a merger or consolidation of Asterias with or into another corporation or entity in which the stockholders of Asterias immediately before such merger or consolidation do not own, in the aggregate, Voting Securities of the surviving corporation or entity (or the ultimate parent of the surviving corporation or entity) entitling them, in the aggregate (and without regard to whether they constitute an Affiliated Group) to elect a majority of the directors or persons holding similar powers of the surviving corporation or entity (or the ultimate parent of the surviving corporation or entity); provided, however, that in no event shall any transaction described in clauses (A), (B) or (C) be a Change of Control if all of the Persons acquiring Voting Securities or assets of Asterias or merging or consolidating with Asterias are one or more Related Companies.

(iv) "Disability" shall mean Executive's inability to perform the essential functions of Executive's job responsibilities for a period of one hundred eighty (180) days in the aggregate in any twelve (12) month period.

(v) "Good Reason" means (A) a diminution in Executive's base salary; (B) a material change in geographic location at which Executive must perform services (a change in location of the Asterias office at which Executive will primarily work will be considered material only if it increases Executive's current one-way commute by more than fifty (50) miles); (C) any material failure of the successors to Asterias after a Change of Control to perform, or causing Asterias not to perform, Asterias' obligations under this Agreement; (D) any action or inaction of Asterias that constitutes a material breach of the terms of this Agreement; or (E) any other material adverse change in Executive's duties, authorities, responsibilities, or reporting structure (for example, if Executive is required to report to anyone other than the Board of Directors of Asterias or its successor, or if Executive is removed from the Board of Directors of Asterias as a result of an action by the Board of Directors of Asterias or by an action of BioTime, Inc.)."

(vi) "Person" means any natural person or any corporation, partnership, limited liability company, trust, unincorporated business association, or other entity.

(vii) "Voting Securities" means shares of capital stock or other equity securities entitling the holder thereof to regularly vote for the election of directors (or for person performing a similar function if the issuer is not a corporation), but does not include the power to vote upon the happening of some condition or event which has not yet occurred.

6. Turnover of Property and Documents on Termination. Executive agrees that on or before termination of Executive's employment, Executive will return to Asterias and all Related Companies all equipment and other property belonging to Asterias and the Related Companies, and all originals and copies of Confidential Information (in any and all media and formats, and including any document or other item containing Confidential Information) in Executive's possession or control, and all of the following (in any and all media and formats, and whether or not constituting or containing Confidential Information) in Executive's possession or control: (a) lists and sources of customers; (b) proposals or drafts of proposals for any research grant, research or development project or program, marketing plan, licensing arrangement, or other arrangement with any third party; (c) reports, job or laboratory notes, specifications, and drawings pertaining to the research, development, products, patents, and technology of Asterias and any Related Companies; (d) any and all Intellectual Property developed by Executive during the course of employment; and (e) the Manual and memoranda related to the Policies.

7. Resignation as a Director on Termination of Employment. If Executive's employment by the Company is terminated for any reason or for no reason, whether by way of resignation, Disability, or termination by the Company with or without Cause, and if Executive is then a member of the Board of Directors of the Company or any subsidiary of the Company, Executive shall within two business days after such termination of employment resign from the Board of Directors of the Company and from the board of directors of each and every Company subsidiary, by delivering to the Company (or subsidiary as applicable) a letter or other written communication addressed to the Board of Directors of the Company (or subsidiary as applicable) stating that Executive is resigning from the Board of Directors of the Company (or subsidiary as applicable) effective immediately. A business day shall be any day other than a Saturday, Sunday, or federal holiday on which federal offices are closed.

8. Arbitration. Except for injunctive proceedings against unauthorized disclosure of Confidential Information, any and all claims or controversies between Asterias or any Related Company and Executive, including but not limited to (a) those involving the construction or application of any of the terms, provisions, or conditions of this Agreement or the Policies; (b) all contract or tort claims of any kind; and (c) any claim based on any federal, state, or local law, statute, regulation, or ordinance, including claims for unlawful discrimination or harassment, shall be settled by arbitration in accordance with the then current Employment Dispute Resolution Rules of the American Arbitration Association. Judgment on the award rendered by the arbitrator(s) may be entered by any court having jurisdiction over the Company and Executive. The location of the arbitration shall be San Francisco, California. Unless Asterias or a Related Company and Executive mutually agree otherwise, the arbitrator shall be a retired judge selected from a panel provided by the American Arbitration Association, or the Judicial Arbitration and Mediation Service (JAMS). Asterias, or a Related Company if the Related Company is a party to the arbitration proceeding, shall pay the arbitrator's fees and costs. Executive shall pay for Executive's own costs and attorneys' fees, if any. Asterias and any Related Company that is a party to an arbitration proceeding shall pay for its own costs and attorneys' fees, if any. However, if any party prevails on a statutory claim which affords the prevailing party attorneys' fees, the arbitrator shall award reasonable attorneys' fees and costs to the prevailing party consistent with the relevant statute(s).

EXECUTIVE UNDERSTANDS AND AGREES THAT THIS AGREEMENT TO ARBITRATE CONSTITUTES A WAIVER OF EXECUTIVE'S RIGHT TO A TRIAL BY JURY OF ANY MATTERS COVERED BY THIS AGREEMENT TO ARBITRATE.

9. Severability. In the event that any of the provisions of this Agreement or the Policies shall be held to be invalid or unenforceable in whole or in part, those provisions to the extent enforceable and all other provisions shall nevertheless continue to be valid and enforceable as though the invalid or unenforceable parts had not been included in this Agreement or the Policies. In the event that any provision relating to a time period of restriction shall be declared by a court of competent jurisdiction to exceed the maximum time period such court deems reasonable and enforceable, then the time period of restriction deemed reasonable and enforceable by the court shall become and shall thereafter be the maximum time period.

10. Agreement Read and Understood. Executive acknowledges that Executive has carefully read the terms of this Agreement, that Executive has had an opportunity to consult with an attorney or other representative of Executive's own choosing regarding this Agreement, that Executive understands the terms of this Agreement, and that Executive is entering this agreement of Executive's own free will.

11. Complete Agreement, Modification. This Agreement is the complete agreement between Executive and Asterias on the subjects contained in this Agreement. This Agreement supersedes and replaces all previous correspondence, promises, representations, and agreements, if any, either written or oral with respect to Executive's employment by Asterias or any Related Company and any matter covered by this Agreement. No provision of this Agreement may be modified, amended, or waived except by a written document signed both by Asterias and Executive.

12. Governing Law. This Agreement shall be construed and enforced according to the laws of the State of California.

13. Assignability. This Agreement, and the rights and obligations of Executive and Asterias under this Agreement, may not be assigned by Executive. Asterias may assign any of its rights and obligations under this Agreement to any successor or surviving corporation, limited liability company, or other entity resulting from a merger, consolidation, sale of assets, sale of stock, sale of membership interests, or other reorganization, upon condition that the assignee shall assume, either expressly or by operation of law, all of Asterias' obligations under this Agreement.

14. Survival. This Section 14 and the covenants and agreements contained in Sections 4, 6, 7, and 8 of this Agreement shall survive termination of this Agreement and Executive's employment.

15. Notices. Any notices or other communication required or permitted to be given under this Agreement shall be in writing and shall be mailed by certified mail, return receipt requested, or sent by next business day air courier service, or personally delivered to the party to whom it is to be given at the address of such party set forth on the signature page of this Agreement (or to such other address as the party shall have furnished in writing in accordance with the provisions of this Section 15).

IN WITNESS WHEREOF, Executive and Asterias have executed this Agreement on the day and year first above written.

EXECUTIVE:

s/Pedro Lichtinger

Pedro Lichtinger

Address: 322 W.57th Street, Apt 35B
New York, NY 10019

ASTERIAS:

Asterias Biotherapeutics, Inc.

By: s/Alfred D. Kingsley

Title: Chairman

Address: 230 Constitution Drive
Menlo Park, California 94025

EXHIBIT A

Job Title: President and Chief Executive Officer

Description of Job and Duties: Executive shall perform the duties and functions as are normally carried out by a Chief Executive Officer of a developer of pharmaceutical or medical products of a size comparable to Asterias, and as the Board of Directors of Asterias shall from time to time reasonably determine. Without limiting the generality of the immediately preceding sentence, Executive shall (i) manage stem cell research and development of technologies and products for human therapeutic purposes based on human stem cells, including but not limited to embryonic stem cells, induced pluripotent stem cells, and human embryonic progenitor cells; (ii) participate in capital raising efforts on behalf of the Company; and (iii) participate in the acquisition of companies in the business of developing products and technologies in the field of human stem cell research and regenerative medicine, or, the acquisition of assets of such companies, to the extent that Asterias has or obtains sufficient capital for such purpose, and.

Annual Salary: $400,000 commencing as of June 9, 2014.

Vacation and Sick Days Annually: 21 days. For the year 2014, Executive shall be permitted to take up to twenty (20) of such vacation days during the summer of 2014 to attend to previously planned family commitments.

Equity Incentive Plan Awards: (A) Options to purchase 1,000,000 shares of common stock under the Asterias Equity Incentive Plan (the "Plan") at an exercise price of $2.34 per share, and on such other terms and conditions consistent with the Plan as the Board of Directors determines, including vesting in 48 monthly installments conditioned upon Executive remaining a full-time employee at the end of the applicable month; (B) 200,000 shares of Restricted Stock under the Plan, which shares shall be restricted under the Plan for a period of one year with the restrictions to expire with respect to 16,667 shares of such Restricted Stock each month Executive is employed by Asterias or a Related Company (for example, after Executive is employed by Asterias or a Related Company for one month, the restrictions will remain on 183,333 of the shares).

EXHIBIT B

California Labor Code Section 2870.

Application of provision providing that employee shall assign or offer to assign rights in invention to employer.

(a) Any provision in an employment agreement which provides that an employee shall assign, or offer to assign, any of his or her rights in an invention to his or her employer shall not apply to an invention that the employee developed entirely on his or her own time without using the employer's equipment, supplies, facilities, or trade secret information except for those inventions that either:

(i) Relate at the time of conception or reduction to practice of the invention to the employer's business, or actual or demonstrably anticipated research or development of the employer; or

(ii) Result from any work performed by the employee for his employer.

(b) To the extent a provision in an employment agreement purports to require an employee to assign an invention otherwise excluded from being required to be assigned under subdivision (a), the provision is against the public policy of this state and is unenforceable.

EXHIBIT C

PRIOR MATTERS

None

Exhibit 10.8

LIFEMAP SOLUTIONS, INC.

2014 Stock Option Plan

1. Purpose and Eligibility

The purpose of this 2014 Stock Option Plan (the "Plan") of LifeMap Solutions, Inc. (the "Company") is to provide stock options and other equity interests in the Company (each an "Award") to selected key officers, directors, employees, consultants, independent contractors, professionals, advisors, scientific advisory board members, and other individuals whose efforts may aid the Company or its Affiliates, all of whom are eligible to receive Awards under the Plan. Any person to whom an Award has been granted under the Plan is called a "Participant." Additional definitions are contained in Section 8.

2. Administration

a. Administration by Board of Directors. The Plan will be administered by the Board of Directors of the Company (the "Board"). The Board, in its sole discretion, shall have the authority to grant and amend Awards, to adopt, amend and repeal rules relating to the Plan and to interpret and correct the provisions of the Plan and any Award. All decisions by the Board shall be final and binding on all interested persons. Neither the Company nor any member of the Board shall be liable for any action or determination relating to the Plan.

b. Appointment of Committees. To the extent permitted by applicable law, the Board may delegate any or all of its powers under the Plan to one or more committees or subcommittees of the Board (a "Committee"). All references in the Plan to the "Board" shall mean such Committee or the Board.

3. Stock Available for Awards

a. Number of Shares. Subject to adjustment under Section 3(c), the aggregate number of shares of Common Stock of the Company (the "Common Stock") that may be issued pursuant to the Plan is **18,667 shares**. If any Award expires, or is terminated, surrendered or forfeited, in whole or in part, the unissued Common Stock covered by such Award shall again be available for the grant of Awards under the Plan. If shares of Common Stock issued pursuant to the Plan are repurchased by, or are surrendered or forfeited to, the Company at no more than cost, such shares of Common Stock shall again be available for the grant of Awards under the Plan; *provided, however,* that the cumulative number of such shares that may be so reissued under the Plan will not exceed **9,333** Shares issued under the Plan may consist in whole or in part of authorized but unissued shares or treasury shares.

b. Adjustment to Common Stock. In the event of any stock split, stock dividend, extraordinary cash dividend, recapitalization, reorganization, merger, consolidation, combination, exchange of shares, liquidation, spin-off, split-up, or other similar change in capitalization or event, (i) the number and class of securities available for Awards under the Plan and the per-Participant share limit, (ii) the number and class of securities, vesting schedule and exercise price per share subject to each outstanding Option, (iii) the repurchase price per security subject to repurchase, and (iv) the terms of each other outstanding stock-based Award shall be adjusted by the Company (or substituted Awards may be made) to the extent the Board shall determine, in good faith, that such an adjustment (or substitution) is appropriate. If Section 7(e)(i) applies for any event, this Section 3(b) shall not be applicable.

4. Stock Options

a. General. The Board may grant options to purchase Common Stock (each, an "Option") and determine the number of shares of Common Stock to be covered by each Option, the exercise price of each Option and the conditions and limitations applicable to the exercise of each Option and the Common Stock issued upon the exercise of each Option, including vesting provisions, repurchase provisions and restrictions relating to applicable federal or state securities laws, as it considers advisable.

b. Incentive Stock Options. An Option that the Board intends to be an "incentive stock option" as defined in Section 422 of the Code (an "Incentive Stock Option") shall be granted only to employees of the Company and shall be subject to and shall be construed consistently with the requirements of Section 422 of the Code. The Board and the Company shall have no liability if an Option or any part thereof that is intended to be an Incentive Stock Option does not qualify as such. An Option or any part thereof that does not qualify as an Incentive Stock Option is referred to herein as a "Non-Qualified Stock Option."

c. Exercise Price. The Board shall establish the exercise price (or determine the method by which the exercise price shall be determined) at the time each Option is granted and specify it in the applicable option agreement.

d. Duration of Options. Each Option shall be exercisable at such times and subject to such terms and conditions as the Board may specify in the applicable option agreement.

e. Exercise of Option. Options may be exercised only by delivery to the Company of a written notice of exercise signed by the proper person together with payment in full as specified in Section 4(f) for the number of shares for which the Option is exercised.

f. Payment Upon Exercise. Common Stock purchased upon the exercise of an Option shall be paid for by one or any combination of the following forms of payment, as determined by the Board in the exercise of its discretion, and specified in the applicable option agreement:

(i) by check payable to the order of the Company;

(ii) except as otherwise explicitly provided in the applicable option agreement, and only if the Common Stock is then publicly traded, delivery of an irrevocable and unconditional undertaking by a creditworthy broker to deliver promptly to the Company sufficient funds to pay the exercise price, or delivery by the Participant to the Company of a copy of irrevocable and unconditional instructions to a creditworthy broker to deliver promptly to the Company cash or a check sufficient to pay the exercise price; or

(iii) to the extent explicitly provided in the applicable option agreement, by (A) delivery of shares of Common Stock owned by the Participant valued at fair market value (as determined by the Board or as determined pursuant to the applicable option agreement), (B) net exercise of the option pursuant to which the Participant agrees to surrender a sufficient number of shares obtained through exercise of the option, valued at fair market value (as determined by the Board or as determined by the applicable option agreement) to satisfy the exercise price, or (C) payment of such other lawful consideration as the Board may determine.

5. Restricted Stock

a. Grants. The Board may grant Awards entitling recipients to acquire shares of Common Stock, subject to (i) delivery to the Company by the Participant of cash or other lawful consideration in an amount at least equal to the par value of the shares purchased, and (ii) the right of the Company to repurchase all or part of such shares at their issue price or other stated or formula price from the Participant in the event that conditions specified by the Board in the applicable Award are not satisfied prior to the end of the applicable restriction period or periods established by the Board for such Award (each, a "Restricted Stock Award").

b. Terms and Conditions. The Board shall determine the terms and conditions of any such Restricted Stock Award. Any stock certificates issued in respect of a Restricted Stock Award shall be registered in the name of the Participant and, unless otherwise determined by the Board, deposited by the Participant, together with a stock power endorsed in blank, with the Company (or its designee). After the expiration of the applicable restriction periods, the Company (or such designee) shall deliver the certificates no longer subject to such restrictions to the Participant or, if the Participant has died, to the beneficiary designated by a Participant, in a manner determined by the Board, to receive amounts due or exercise rights of the Participant in the event of the Participant's death (the "Designated Beneficiary"). In the absence of an effective designation by a Participant, Designated Beneficiary shall mean the Participant's estate.

6. Other Stock-Based Awards

The Board shall have the right to grant other Awards based upon the Common Stock having such terms and conditions as the Board may determine, including, without limitation, the grant of shares based upon certain conditions, the grant of securities convertible into Common Stock and the grant of stock appreciation rights, phantom stock awards or stock units.

7. General Provisions Applicable to Awards

a. Transferability of Awards. Except as the Board may otherwise determine or provide in an Award, Awards shall not be sold, assigned, transferred, pledged or otherwise encumbered by the person to whom they are granted, either voluntarily or by operation of law, except by will or the laws of descent and distribution, and, during the life of the Participant, shall be exercisable only by the Participant. References to a Participant, to the extent relevant in the context, shall include references to authorized transferees.

b. Documentation. Each Award under the Plan shall be evidenced by a written instrument in such form as the Board shall determine or as executed by an officer of the Company pursuant to authority delegated by the Board. Each Award may contain terms and conditions in addition to those set forth in the Plan *provided that* such terms and conditions do not contravene the provisions of the Plan.

c. Board Discretion. The terms of each type of Award need not be identical, and the Board need not treat Participants uniformly.

d. Termination of Status. The Board shall determine the effect on an Award of the disability, death, retirement, authorized leave of absence or other change in the employment or other status of a Participant and the extent to which, and the period during which, the Participant, or the Participant's legal representative, conservator, guardian or Designated Beneficiary, may exercise rights under the Award.

e. Acquisition of the Company

(i) Consequences of an Acquisition. Upon the consummation of an Acquisition, the Board or the board of directors of the surviving or acquiring entity (as used in this Section 7(e)(i), also the "Board"), shall, as to outstanding Awards (on the same basis or on different bases as the Board shall specify), make appropriate provision for the continuation of such Awards by the Company or the assumption of such Awards by the surviving or acquiring entity and by substituting on an equitable basis for the shares then subject to such Awards either (a) the consideration payable with respect to the outstanding shares of Common Stock in connection with the Acquisition, (b) shares of stock of the surviving or acquiring corporation or (c) such other securities or other consideration as the Board deems appropriate, the fair market value of which (as determined by the Board in its sole discretion) shall not materially differ from the fair market value of the shares of Common Stock subject to such Awards immediately preceding the Acquisition. In addition to or in lieu of the foregoing, with respect to outstanding Options, the Board may, on the same basis or on different bases as the Board shall specify, upon written notice to the affected optionees, provide that one or more Options then outstanding must be exercised, in whole or in part, within a specified number of days of the date of such notice, at the end of which period such Options shall terminate, or provide that one or more Options then outstanding, in whole or in part, shall be terminated in exchange for a cash payment equal to the excess of the fair market value (as determined by the Board in its sole discretion) for the shares subject to such Options over the exercise price thereof; *provided, however,* that before terminating any portion of an Option that is not vested or exercisable (other than in exchange for a cash payment), the Board must first accelerate in full the exercisability of the portion that is to be terminated. Unless otherwise determined by the Board (on the same basis or on different bases as the Board shall specify), any repurchase rights or other rights of the Company that relate to an Option or other Award shall continue to apply to consideration, including cash, that has been substituted, assumed or amended for an Option or other Award pursuant to this paragraph. The Company may hold in escrow all or any portion of any such consideration in order to effectuate any continuing restrictions. Notwithstanding the foregoing, the Board retains the authority to do or approve any action affecting the terms of Awards that the Board deems to be in the best interests of the Company.

(ii) Acquisition Defined. An "Acquisition" shall mean: (x) the sale of the Company by merger in which the shareholders of the Company in their capacity as such no longer own a majority of the outstanding equity securities of the Company (or its successor); or (y) any sale of all or substantially all of the assets or capital stock of the Company (other than in a spin-off or similar transaction) or (z) any other acquisition of the business of the Company, as determined by the Board.

(iii) Assumption of Options Upon Certain Events. In connection with a merger or consolidation of an entity with the Company or the acquisition by the Company of property or stock of an entity, the Board may grant Awards under the Plan in substitution for stock and stock-based awards issued by such entity or an affiliate thereof. The substitute Awards shall be granted on such terms and conditions as the Board considers appropriate in the circumstances.

f. Withholding. Each Participant shall pay to the Company, or make provisions satisfactory to the Company for payment of, any taxes required by law to be withheld in connection with Awards to such Participant no later than the date of the event creating the tax liability. The Board may allow Participants to satisfy such tax obligations in whole or in part by transferring shares of Common Stock, including shares retained from the Award creating the tax obligation, valued at their fair market value (as determined by the Board or as determined pursuant to the applicable option agreement). The Company may, to the extent permitted by law, deduct any such tax obligations from any payment of any kind otherwise due to a Participant.

g. Amendment of Awards. The Board may amend, modify or terminate any outstanding Award including, but not limited to, substituting therefor another Award of the same or a different type, changing the date of exercise or realization, and converting an Incentive Stock Option to a Non-Qualified Stock Option, *provided that* the Participant's consent to such action shall be required unless the Board determines that the action, taking into account any related action, would not materially and adversely affect the Participant.

h. Conditions on Delivery of Stock. The Company will not be obligated to deliver any shares of Common Stock pursuant to the Plan or to remove restrictions from shares previously delivered under the Plan until (i) all conditions of the Award have been met or removed to the satisfaction of the Company, (ii) in the opinion of the Company's counsel, all other legal matters in connection with the issuance and delivery of such shares have been satisfied, including any applicable securities laws and any applicable stock exchange or stock market rules and regulations, and (iii) the Participant has executed and delivered to the Company such representations or agreements as the Company may consider appropriate to satisfy the requirements of any applicable laws, rules or regulations.

i. Acceleration. The Board may at any time provide that any Options shall become immediately exercisable in full or in part, that any Restricted Stock Awards shall be free of some or all restrictions, or that any other stock-based Awards may become exercisable in full or in part or free of some or all restrictions or conditions, or otherwise realizable in full or in part, as the case may be, despite the fact that the foregoing actions may (i) cause the application of Sections 280G and 4999 of the Code if a change in control of the Company occurs, or (ii) disqualify all or part of the Option as an Incentive Stock Option. In the event of the acceleration of the exercisability of one or more outstanding Options, including pursuant to paragraph (e)(i), the Board may provide, as a condition of full exercisability of any or all such Options, that the Common Stock or other substituted consideration, including cash, as to which exercisability has been accelerated shall be restricted and subject to forfeiture back to the Company at the option of the Company at the cost thereof upon termination of employment or other relationship, with the timing and other terms of the vesting of such restricted stock or other consideration being equivalent to the timing and other terms of the superseded exercise schedule of the related Option.

8. Miscellaneous

a. Definitions.

(i) "Company" for purposes of eligibility under the Plan, shall include any present or future corporation which is a parent corporation or a subsidiary corporation with respect to LIFEMAP SOLUTIONS, INC. within the meaning of Sections 424(e) or (f) of the Code. For purposes of Awards other than Incentive Stock Options, the term "Company" shall include any other business venture in which the Company has a direct or indirect significant interest, as determined by the Board in its sole discretion.

(ii) "Code" means the Internal Revenue Code of 1986, as amended, and any regulations promulgated thereunder.

(iii) "Employee" for purposes of eligibility under the Plan (but not for purposes of Section 4(b)) shall include a person to whom an offer of employment has been extended by the Company.

b. No Right To Employment or Other Status. No person shall have any claim or right to be granted an Award, and the grant of an Award shall not be construed as giving a Participant the right to continued employment or any other relationship with the Company. The Company expressly reserves the right at any time to dismiss or otherwise terminate its relationship with a Participant free from any liability or claim under the Plan.

c. No Rights As Stockholder. Subject to the provisions of the applicable Award, no Participant or Designated Beneficiary shall have any rights as a stockholder with respect to any shares of Common Stock to be distributed with respect to an Award until becoming the record holder thereof.

d. Effective Date and Term of Plan. The Plan shall become effective on the date on which it is adopted by the Board. No Awards shall be granted under the Plan after the completion of ten years from the date on which the Plan was adopted by the Board, but Awards previously granted may extend beyond that date.

e. Amendment of Plan. The Board may amend, suspend or terminate the Plan or any portion thereof at any time.

f. Governing Law. The provisions of the Plan and all Awards made hereunder shall be governed by and interpreted in accordance with the laws of Delaware, without regard to any applicable conflicts of law.

Exhibit 10.9

INCENTIVE STOCK OPTION AGREEMENT

THIS AGREEMENT made and entered into as of _____, by and between LIFEMAP SOLUTIONS, INC.., a Delaware corporation (the "Company"), and _____, an employee/consultant (the "Employee") of the Company or of a subsidiary of the Company (hereinafter included within the term "Company") within the meaning of Section 425(f) of the Internal Revenue Code of 1986, as amended (the "Code"),

W I T N E S S E T H

WHEREAS, the Company has adopted the LifeMap Solutions, Inc. 2014 Stock Option Plan, as amended (the "Plan"), administered by the Company's Board of Directors (the "Board") or, in the discretion of the Board, by a committee (the "Committee"), providing for the granting to its employees or other individuals, stock options to purchase the Company's common stock, no par value; and

WHEREAS, the Plan provides for the grant of certain options which are intended to be incentive stock options ("incentive stock options" or "options") within the meaning of Section 422(b) of the Code; and

WHEREAS, the Employee is an officer or key employee/consultant who is in a position to make an important contribution to the long-term performance of the Company;

NOW, THEREFORE, in consideration of the foregoing and of the mutual covenants hereinafter set forth and other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the parties agree as follows:

1. Grant. The Company hereby grants to the Employee an incentive stock option to purchase _____ shares of common stock, par value $0.0001 per share (the "Shares"), at the price set forth in Section 2, on the terms and conditions hereinafter stated and subject to any limitations contained in the Plan.

2. Exercise Price. The purchase price per Share is _____ ($____) which was the fair market value of the Shares as determined by the Board immediately prior to the grant.

3. Vesting. Unless otherwise terminated as provided by this Agreement, this option will vest (and thereby become exercisable) as follows: ____ of the number of Shares will vest at the end of each full month of employment. Vesting will depend on Employee's continued employment with the Company through the applicable vesting date. The unvested portion of the Option shall not be exercisable.

4. Expiration. The vested portion of the options shall expire at 5:00 p.m. California time on the _____ anniversary of the date of grant.

5. Adjustments in Shares and Purchase Price.

(a) The number of Shares subject hereto and the purchase price per Share thereof shall adjusted by the Board or Committee as provided in Section 3(b) of the Plan for any increase or decrease in the number of issued and outstanding shares of common stock resulting from a subdivision or consolidation of shares or the payment of a stock dividend, or any other increase or decrease in the number of issued and outstanding shares of common stock effected without receipt of consideration by the Company.

(b) Upon (x) the sale of the Company by merger in which the shareholders of the Company in their capacity as such no longer own a majority of the outstanding equity securities of the Company (or its successor); or (y) any sale of all or substantially all of the assets or capital stock of the Company (other than in a spin-off or similar transaction) or (z) any other acquisition of the business of the Company, as determined by the Board, the provisions of Section 7(e) of the Plan, as it may be amended from time to time, shall apply.

(c) **T**he foregoing adjustments made by the Board or Committee or the board of directors of a successor to the Company shall be final, binding and conclusive.

(d) The grant of this option shall not affect in any way the right of power of the Company to make adjustments, reclassifications, reorganizations or changes of its capital or business structure or to merge or to consolidate or to dissolve, liquidate or sell, or transfer all or any part of its business or assets.

6. Effect of Termination of Employment. In the event of termination of the Employee's employment for any reason other than his or her death or disability, this option may not be exercised after three months after the date he or she ceases to be an employee of the Company, and may be exercisable only up to the amount vested on the date of termination.

7. Effect of Death or Disability. This option shall be exercisable during the Employee's lifetime only by the Employee and shall be nontransferable by the Employee otherwise than by will or the laws of descent and distribution.

(a) In the event the Employee ceases to be employed by the Company on account of the Employee's disability, this option may not be exercised after one year following cessation of employment due to such disability, and may be exercisable only up to the amount vested under Section 3 on the date of disability. A disability means that an employee is unable to carry out the responsibilities and functions of the position held by the employee by reason of any medically determinable physical or mental impairment.

(b) In the event of the Employee's death while in the employ of the Company, or during the three-month period following termination of employment during which the Employee is permitted to exercise this option pursuant to Section 6 or 7, this option may be exercised by the executor or administrator of the Employee's estate or any person who shall have acquired the option from the Employee by his or her will or the applicable law of descent and distribution, during a period of one year after Employee's death with respect to the number of Shares for which the deceased Employee would have been entitled to exercise at the time of his or her death, including the number of Shares that vested upon his death under Section 3, subject to adjustment under Section 5. Any such transferee exercising this option must furnish the Company upon request of the Committee (i) written notice of his or her status as transferee, (ii) evidence satisfactory to the Company to establish the validity of the transfer of the option in compliance with any laws of regulations pertaining to said transfer, and (iii) written acceptance of the terms and conditions of the option as prescribed in this Agreement.

8. How to Exercise Option. This option may be exercised by the person then entitled to do so as to any Share which may then be purchased by giving written notice of exercise to the Company, specifying the number of full Shares to be purchased and accompanied by full payment of the purchase price thereof and the amount of any income tax the Company is required by law to withhold by reason of such exercise. The purchase price shall be payable in cash or in shares of Company common stock having a value equal to the exercise price or in a combination of cash and shares of Company common stock.

9. No Rights as Shareholder Prior to Exercise. Neither the Employee nor any person claiming under or through the Employee shall be or have any of the rights or privileges of a stockholder of the Company in respect of any of the Shares issuable upon the exercise of the option until the date of receipt of payment (including any amounts required by income tax withholding requirements) by the Company.

10. Notices. Any notice to be given to the Company under the terms of this Agreement shall be addressed to the Company at its principal executive office, or at such other address as the Company may hereafter designate in writing. Any notice to be given to the Employee shall be addressed to the Employee as the address set forth beneath his or her signature hereto, or at any such other address as the Employee may hereafter designate in writing. Any such notice shall be deemed to have been duly given three (3) days after being addressed as aforesaid and deposited in the United States mail, first class postage prepaid.

11. Restrictions on Transfer. Except as otherwise provided herein, the option herein granted and the rights and privileges conferred hereby shall not be transferred, assigned, pledged or hypothecated in any way (whether by operation of law or otherwise) and shall not be subject to sale under execution attachment or similar process upon the rights and privileges conferred hereby. Any transfer, assignment, pledge or other disposal of said option, or of any right or privilege conferred hereby, contrary to the provisions hereof, or any sale under any execution, attachment or similar process upon the rights and privileges conferred hereby, shall immediately be null and void and shall not vest in any purported assignee or transferee any rights or privileges of the optionee, under this Agreement or otherwise with respect to such options. Notwithstanding the preceding two sentences, in conjunction with the exercise of an option, and for the purpose of obtaining financing for such exercise, the option holder may arrange for a securities broker/dealer to exercise an option on the option holder's behalf, to the extent necessary to obtain funds required to pay the exercise price of the option.

12. Successor and Assigns. Subject to the limitations on transferability contained herein, this Agreement shall be binding upon and inure to the benefit of the heirs, legal representatives, successors and assigns of the parties hereto.

13. Additional Restrictions. The rights awarded hereby are subject to the requirement that, if at any time the Board or the Committee shall determine, in its discretion, that the listing, registration or qualification of the Shares subject to such rights upon any securities exchange or under any state or federal law, or the consent or approval of any government regulatory body, is necessary or desirable as a condition of, or in connection with, the granting of such rights or the issuance or purchase of Shares in connection with the exercise of such rights, then such rights may not be exercised in whole or in part unless such listing, registration, qualification, consent or approval shall have been affected or obtained free of any conditions not acceptable to the Board or the Committee. Furthermore, if the Board or Committee determines that amendment to any stock option (including but not limited to the increase in the exercise price) is necessary or desirable in connection with the registration or qualification of any Shares or other securities under the securities or "blue sky" laws of any state, then the Board or Committee shall have the unilateral right to make such changes without the consent of the Employee.

14. Notice of Sale or Other Disposition of Shares. In the event the Employee disposes of any of the Shares that may be acquired hereunder at any time within two years of the date hereof or one year from the date the Shares were acquired, the Employee agrees to notify the Company in writing within ten days of the date of such disposition, of the number of Shares disposed of, the nature of the transaction, and the amount received (if any) upon such disposition. Employee understands that such a disposition may result in imposition of withholding taxes, and agrees to remit to the Company on request any amounts requested to satisfy any withholding tax liability.

15. Terms of Employment. Subject to any employment contract with the Employee, the terms of employment of the Employee shall be determined from time to time by the Company and the Company shall have the right, which is hereby expressly reserved, to terminate the Employee or change the terms of the employment at any time for any reason whatsoever, with or without good cause. The Employee agrees to notify in writing the Corporate Secretary of the Company of the Employee's intention, if any, to terminate Employee's employment within ten days after said intention is formed.

16. Payment of Taxes. Whenever Shares are to be issued to the Employee in satisfaction of the rights conferred hereby, the Company shall have the right to require the Employee to remit to the Company an amount sufficient to satisfy federal, state and local withholding tax requirements prior to the delivery of any certificate or certificates for such Shares.

17. Terms and Conditions of Plan. This Agreement is subject to, and the Company and the Employee agree to be bound by, all of the terms and conditions of the Plan, as the same shall have been amended from time to time in accordance with the terms thereof, provided that no such amendment shall deprive the Employee, without his or her consent, of any of his or her rights hereunder, except as otherwise provided in this Agreement or in the Plan. The Shares acquired hereunder may also be subject to restrictions on transfer and/or rights of repurchase that may be contained in the Bylaws of the Company or in separate agreements with Employee. The Board or the Committee shall have the power to interpret the Plan and this Agreement and to adopt such rules for the administration, interpretation and application of the Plan as are consistent therewith and to interpret or revoke any such rules. All actions taken and all interpretations and determinations made by the Board or the Committee in good faith shall be final and binding upon Employee, the Company and all other interested persons. No member of the Board or the Committee shall be personally liable for any action, determination or interpretation made in good faith with respect to the Plan or this Agreement.

18. Severability. In the event that any provision in this Agreement shall be invalid or unenforceable, such provision shall be severable from, and such invalidity or unenforceability shall not be construed to have any effect on the remaining provisions of this Agreement.

19. Governing Law. This Agreement shall be governed by and construed under the laws of the state of California, without regard to conflicts of law provisions.

IN WITNESS HEREOF, the parties hereto have executed this Agreement, as of the day and year first above written.

COMPANY:

LifeMap Solutions, Inc.

By _____

Title _____

By _____

Title _____

EMPLOYEE:

_____
(Signature)

_____
(Please Print Name)

Exhibit 10.10

STOCK OPTION AGREEMENT
(Non-Qualified Option)

THIS AGREEMENT made and entered into as of _____, by and between LIFEMAP SOLUTIONS, INC.., a Delaware corporation (the "Company"), and _____, an employee or consultant (the "Optionee") of the Company or of a subsidiary of the Company (hereinafter included within the term "Company") within the meaning of Section 425(f) of the Internal Revenue Code of 1986, as amended (the "Code"),

W I T N E S S E T H

WHEREAS, the Company has adopted the LifeMap Solutions, Inc. 2014 Stock Option Plan, as amended (the "Plan"), administered by the Company's Board of Directors (the "Board") or, in the discretion of the Board, by a committee (the "Committee"), providing for the granting to its employees or other individuals, stock options to purchase the Company's common stock, no par value; and

WHEREAS, the Optionee is an officer or key employee/consultant who is in a position to make an important contribution to the long-term performance of the Company;

NOW, THEREFORE, in consideration of the foregoing and of the mutual covenants hereinafter set forth and other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the parties agree as follows:

1. Grant. The Company hereby grants to the Optionee an option to purchase _____ shares of common stock, par value $0.0001 per share (the "Shares"), at the price set forth in Section 2, on the terms and conditions hereinafter stated and subject to any limitations contained in the Plan.

2. Exercise Price. The purchase price per Share is _____ ($____) which was the fair market value of the Shares as determined by the Board immediately prior to the grant.

3. Vesting. Unless otherwise terminated as provided by this Agreement, this option will vest (and thereby become exercisable) as follows: ____ of the number of Shares will vest at the end of each full month of employment. Vesting will depend on Optionee's continued [employment/services as director/service as a consultant] with the Company through the applicable vesting date. The unvested portion of the Option shall not be exercisable.

4. Expiration. The vested portion of the options shall expire at 5:00 p.m. California time on the _____ anniversary of the date of grant.

5. Adjustments in Shares and Purchase Price.

(a) The number of Shares subject hereto and the purchase price per Share thereof shall adjusted by the Board or Committee as provided in Section 3(b) of the Plan for any increase or decrease in the number of issued and outstanding shares of common stock resulting from a subdivision or consolidation of shares or the payment of a stock dividend, or any other increase or decrease in the number of issued and outstanding shares of common stock effected without receipt of consideration by the Company.

(b) Upon (x) the sale of the Company by merger in which the shareholders of the Company in their capacity as such no longer own a majority of the outstanding equity securities of the Company (or its successor); or (y) any sale of all or substantially all of the assets or capital stock of the Company (other than in a spin-off or similar transaction) or (z) any other acquisition of the business of the Company, as determined by the Board, the provisions of Section 7(e) of the Plan, as it may be amended from time to time, shall apply.

(c) **T**he foregoing adjustments made by the Board or Committee or the board of directors of a successor to the Company shall be final, binding and conclusive.

(d) The grant of this option shall not affect in any way the right of power of the Company to make adjustments, reclassifications, reorganizations or changes of its capital or business structure or to merge or to consolidate or to dissolve, liquidate or sell, or transfer all or any part of its business or assets.

6. Effect of Termination of Employment. In the event of termination of the Optionee's employment for any reason other than his or her death or disability, this option may not be exercised after three months after the date he or she ceases to be an Optionee of the Company, and may be exercisable only up to the amount vested on the date of termination.

7. Effect of Death or Disability. This option shall be exercisable during the Optionee's lifetime only by the Optionee and shall be nontransferable by the Optionee otherwise than by will or the laws of descent and distribution.

(a) In the event the Optionee ceases to be employed by the Company on account of the Optionee's disability, this option may not be exercised after one year following cessation of employment due to such disability, and may be exercisable only up to the amount vested under Section 3 on the date of disability. A disability means that an Optionee is unable to carry out the responsibilities and functions of the position held by the Optionee by reason of any medically determinable physical or mental impairment.

(b) In the event of the Optionee's death while in the employ of the Company, or during the three-month period following termination of employment during which the Optionee is permitted to exercise this option pursuant to Section 6 or 7, this option may be exercised by the executor or administrator of the Optionee's estate or any person who shall have acquired the option from the Optionee by his or her will or the applicable law of descent and distribution, during a period of one year after Optionee's death with respect to the number of Shares for which the deceased Optionee would have been entitled to exercise at the time of his or her death, including the number of Shares that vested upon his death under Section 3, subject to adjustment under Section 5. Any such transferee exercising this option must furnish the Company upon request of the Committee (i) written notice of his or her status as transferee, (ii) evidence satisfactory to the Company to establish the validity of the transfer of the option in compliance with any laws of regulations pertaining to said transfer, and (iii) written acceptance of the terms and conditions of the option as prescribed in this Agreement.

8. How to Exercise Option. This option may be exercised by the person then entitled to do so as to any Share which may then be purchased by giving written notice of exercise to the Company, specifying the number of full Shares to be purchased and accompanied by full payment of the purchase price thereof and the amount of any income tax the Company is required by law to withhold by reason of such exercise. The purchase price shall be payable in cash or in shares of Company common stock having a value equal to the exercise price or in a combination of cash and shares of Company common stock.

9. No Rights as Shareholder Prior to Exercise. Neither the Optionee nor any person claiming under or through the Optionee shall be or have any of the rights or privileges of a stockholder of the Company in respect of any of the Shares issuable upon the exercise of the option until the date of receipt of payment (including any amounts required by income tax withholding requirements) by the Company.

10. Notices. Any notice to be given to the Company under the terms of this Agreement shall be addressed to the Company at its principal executive office, or at such other address as the Company may hereafter designate in writing. Any notice to be given to the Optionee shall be addressed to the Optionee as the address set forth beneath his or her signature hereto, or at any such other address as the Optionee may hereafter designate in writing. Any such notice shall be deemed to have been duly given three (3) days after being addressed as aforesaid and deposited in the United States mail, first class postage prepaid.

11. Restrictions on Transfer. Except as otherwise provided herein, the option herein granted and the rights and privileges conferred hereby shall not be transferred, assigned, pledged or hypothecated in any way (whether by operation of law or otherwise) and shall not be subject to sale under execution attachment or similar process upon the rights and privileges conferred hereby. Any transfer, assignment, pledge or other disposal of said option, or of any right or privilege conferred hereby, contrary to the provisions hereof, or any sale under any execution, attachment or similar process upon the rights and privileges conferred hereby, shall immediately be null and void and shall not vest in any purported assignee or transferee any rights or privileges of the Optionee, under this Agreement or otherwise with respect to such options. Notwithstanding the preceding two sentences, in conjunction with the exercise of an option, and for the purpose of obtaining financing for such exercise, the option holder may arrange for a securities broker/dealer to exercise an option on the option holder's behalf, to the extent necessary to obtain funds required to pay the exercise price of the option.

12. Successor and Assigns. Subject to the limitations on transferability contained herein, this Agreement shall be binding upon and inure to the benefit of the heirs, legal representatives, successors and assigns of the parties hereto.

13. Additional Restrictions. The rights awarded hereby are subject to the requirement that, if at any time the Board or the Committee shall determine, in its discretion, that the listing, registration or qualification of the Shares subject to such rights upon any securities exchange or under any state or federal law, or the consent or approval of any government regulatory body, is necessary or desirable as a condition of, or in connection with, the granting of such rights or the issuance or purchase of Shares in connection with the exercise of such rights, then such rights may not be exercised in whole or in part unless such listing, registration, qualification, consent or approval shall have been affected or obtained free of any conditions not acceptable to the Board or the Committee. Furthermore, if the Board or Committee determines that amendment to any stock option (including but not limited to the increase in the exercise price) is necessary or desirable in connection with the registration or qualification of any Shares or other securities under the securities or "blue sky" laws of any state, then the Board or Committee shall have the unilateral right to make such changes without the consent of the Optionee.

14. Terms of Employment. Subject to any employment contract with the Optionee, the terms of employment of the Optionee shall be determined from time to time by the Company and the Company shall have the right, which is hereby expressly reserved, to terminate the Optionee or change the terms of the employment at any time for any reason whatsoever, with or without good cause. The Optionee agrees to notify in writing the Corporate Secretary of the Company of the Optionee's intention, if any, to terminate Optionee's employment within ten days after said intention is formed.

15. Payment of Taxes. Whenever Shares are to be issued to the Optionee in satisfaction of the rights conferred hereby, the Company shall have the right to require the Optionee to remit to the Company an amount sufficient to satisfy federal, state and local withholding tax requirements prior to the delivery of any certificate or certificates for such Shares.

16. Terms and Conditions of Plan. This Agreement is subject to, and the Company and the Optionee agree to be bound by, all of the terms and conditions of the Plan, as the same shall have been amended from time to time in accordance with the terms thereof, provided that no such amendment shall deprive the Optionee, without his or her consent, of any of his or her rights hereunder, except as otherwise provided in this Agreement or in the Plan. The Shares acquired hereunder may also be subject to restrictions on transfer and/or rights of repurchase that may be contained in the Bylaws of the Company or in separate agreements with Optionee. The Board or the Committee shall have the power to interpret the Plan and this Agreement and to adopt such rules for the administration, interpretation and application of the Plan as are consistent therewith and to interpret or revoke any such rules. All actions taken and all interpretations and determinations made by the Board or the Committee in good faith shall be final and binding upon Optionee, the Company and all other interested persons. No member of the Board or the Committee shall be personally liable for any action, determination or interpretation made in good faith with respect to the Plan or this Agreement.

17. Severability. In the event that any provision in this Agreement shall be invalid or unenforceable, such provision shall be severable from, and such invalidity or unenforceability shall not be construed to have any effect on the remaining provisions of this Agreement.

18. Governing Law. This Agreement shall be governed by and construed under the laws of the state of California, without regard to conflicts of law provisions.

[Signature page follows]

IN WITNESS HEREOF, the parties hereto have executed this Agreement, as of the day and year first above written.

COMPANY:

LifeMap Solutions, Inc.

By _____

Title _____

By _____

Title _____

OPTIONEE:

_____
(Signature)

_____
(Please Print Name)

Exhibit 31

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: August 11, 2014

/s/ Michael D. West

Michael D. West
Chief Executive Officer

CERTIFICATIONS

I, Robert W. Peabody, 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: August 11, 2014

/s/ Robert W. Peabody

Robert W. Peabody
Chief Financial Officer

Exhibit 32

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 June 30, 2014 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), we, Michael D. West, Chief Executive Officer, and Robert W. Peabody, 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: August 11, 2014

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

/s/ Robert W. Peabody
Robert W. Peabody
Chief Financial Officer