

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

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**FORM 10-Q**

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(Mark One)

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

For the quarterly period ended **June 30, 2017**

OR

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

For the transition period from \_\_\_\_ to \_\_\_\_

Commission File Number: **001-36783**

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**BELLICUM PHARMACEUTICALS, INC.**

(Exact name of registrant as specified in its charter)

**Delaware**

(State or other jurisdiction of  
incorporation or organization)

**2836**

(Primary Standard Industrial  
Classification Code Number)

**2130 W. Holcombe Blvd., Ste. 800  
Houston, TX 77030  
(832) 384-1100**

(Address, including zip code, and telephone number, including  
area code, of registrant's principal executive offices)

**20-1450200**

(I.R.S. Employer  
Identification Number)

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

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

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

Large accelerated filer	<input type="radio"/>	Accelerated filer	<input checked="" type="radio"/>
Non-accelerated filer	<input type="radio"/>	Smaller reporting company	<input type="radio"/>
Emerging growth company	<input checked="" type="radio"/>		

(Do not check if a smaller reporting company)

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). **Yes**  **No**   
As of July 28, 2017, there were 33,226,519 outstanding shares of Bellicum's common stock, par value, \$0.01 per share.

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**PART I. FINANCIAL INFORMATION**

**Item 1. Financial Statements**

**Bellicum Pharmaceuticals, Inc.**  
**Condensed Consolidated Balance Sheets**  
(In thousands, except share and par value amounts)

	June 30, 2017 (Unaudited)	December 31, 2016
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$ 75,148	\$ 33,140
Investment securities, available for sale - short-term	55,081	70,632
Accounts receivable, interest and other receivables	275	334
Prepaid expenses and other current assets	2,621	1,504
<b>Total current assets</b>	<b>133,125</b>	<b>105,610</b>
Investment securities, available for sale - long-term	4,405	—
Property and equipment, net	25,458	16,504
Restricted cash	4,383	9,640
Other assets	353	283
<b>TOTAL ASSETS</b>	<b>\$ 167,724</b>	<b>\$ 132,037</b>
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
Current liabilities:		
Accounts payable	\$ 2,103	\$ 3,623
Accrued expenses and other current liabilities	10,164	9,363
Current maturities of long-term debt	3,412	1,787
Current portion of capital lease obligations	27	21
Current portion of deferred rent	256	319
<b>Total current liabilities</b>	<b>15,962</b>	<b>15,113</b>
Long-term liabilities:		
Long-term debt	27,116	18,436
Capital lease obligation	148	141
Deferred rent	1,791	1,773
<b>TOTAL LIABILITIES</b>	<b>45,017</b>	<b>35,463</b>
Commitments and contingencies:		
Stockholders' equity:		
Preferred stock: \$0.01 par value; 10,000,000 shares authorized: no shares issued and outstanding	—	—
Common stock, \$0.01 par value; 200,000,000 shares authorized at June 30, 2017 and December 31, 2016, 33,870,692 shares issued and 33,193,229 shares outstanding at June 30, 2017; 27,833,028 shares issued and 27,155,565 shares outstanding at December 31, 2016	339	278
Treasury stock: 677,463 shares held at June 30, 2017 and December 31, 2016	(5,056)	(5,056)
Additional paid-in capital	404,593	332,068
Accumulated other comprehensive income (loss)	(6)	17
Accumulated deficit	(277,163)	(230,733)
<b>Total stockholders' equity</b>	<b>122,707</b>	<b>96,574</b>
<b>TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY</b>	<b>\$ 167,724</b>	<b>\$ 132,037</b>

See accompanying notes, which are an integral part of these unaudited consolidated financial statements.

**Bellicum Pharmaceuticals, Inc.**  
**Condensed Consolidated Statements of Operations and Comprehensive Income (Loss)**  
(In thousands, except share and per share amounts)

(Unaudited)

	Three months ended June 30,		Six months ended June 30,	
	2017	2016	2017	2016
<b>REVENUES</b>				
Grants	\$ —	\$ 101	\$ 128	\$ 193
Total revenues	—	101	128	193
<b>OPERATING EXPENSES</b>				
Research and development	17,959	12,031	33,254	22,889
License fees	343	150	698	280
General and administrative	5,486	4,179	11,413	8,463
Total operating expenses	23,788	16,360	45,365	31,632
Loss from operations	(23,788)	(16,259)	(45,237)	(31,439)
<b>OTHER INCOME (EXPENSE):</b>				
Interest income	307	236	504	463
Interest expense	(976)	(486)	(1,697)	(608)
Total other expense	(669)	(250)	(1,193)	(145)
<b>NET LOSS</b>	<b>\$ (24,457)</b>	<b>\$ (16,509)</b>	<b>\$ (46,430)</b>	<b>\$ (31,584)</b>
Net loss per common share attributable to common shareholders, basic and diluted	\$ (0.74)	\$ (0.61)	\$ (1.54)	\$ (1.17)
Weighted-average shares outstanding, basic and diluted	33,074,463	26,910,284	30,201,116	26,896,405
Net loss	\$ (24,457)	\$ (16,509)	\$ (46,430)	\$ (31,584)
<b>Other comprehensive income (loss):</b>				
Unrealized gain (loss) on investment securities	(16)	152	(23)	398
<b>Comprehensive loss</b>	<b>\$ (24,473)</b>	<b>\$ (16,357)</b>	<b>\$ (46,453)</b>	<b>\$ (31,186)</b>

See accompanying notes, which are an integral part of these unaudited consolidated financial statements.

**Bellicum Pharmaceuticals, Inc.**  
**Condensed Consolidated Statements of Cash Flows**  
(In thousands)  
(Unaudited)

	Six months ended June 30,	
	2017	2016
<b>CASH FLOWS FROM OPERATING ACTIVITIES:</b>		
Net loss	\$ (46,430)	\$ (31,584)
Adjustments to reconcile net loss to net cash used in operating activities:		
Share-based compensation	6,554	6,183
Depreciation expense	1,648	951
Amortization of premium on investment securities, net	123	340
Amortization of lease liability	(45)	(85)
Amortization of deferred financing costs	380	150
Loss on disposition of fixed assets	—	20
Changes in operating assets and liabilities:		
Receivables	59	58
Prepaid expenses and other assets	(1,187)	256
Accounts payable	(1,587)	(1,126)
Accrued liabilities and other	(2,138)	287
<b>NET CASH USED IN OPERATING ACTIVITIES</b>	<b>(42,623)</b>	<b>(24,550)</b>
<b>CASH FLOWS FROM INVESTING ACTIVITIES:</b>		
Purchases of investment securities	(28,020)	(22,700)
Proceeds from sale of investment securities	39,020	15,858
Purchases of property and equipment	(7,573)	(4,567)
<b>CASH PROVIDED BY (USED IN) INVESTING ACTIVITIES</b>	<b>3,427</b>	<b>(11,409)</b>
<b>CASH FLOWS FROM FINANCING ACTIVITIES:</b>		
Proceeds from stock offering, net of offering costs	64,568	—
Proceeds from issuance of common stock - ESPP	167	188
Proceeds from exercise of stock options	1,297	285
Proceeds from notes payable	10,000	15,000
Payment of debt issuance costs	(75)	(199)
Payment on capital lease obligation	(10)	(7)
<b>NET CASH PROVIDED BY FINANCING ACTIVITIES</b>	<b>75,947</b>	<b>15,267</b>
<b>NET CHANGE IN CASH, CASH EQUIVALENTS AND RESTRICTED CASH</b>	<b>36,751</b>	<b>(20,692)</b>
<b>CASH, CASH EQUIVALENTS AND RESTRICTED CASH AT BEGINNING OF PERIOD</b>	<b>42,780</b>	<b>70,241</b>
<b>CASH, CASH EQUIVALENTS AND RESTRICTED CASH AT END OF PERIOD</b>	<b>\$ 79,531</b>	<b>\$ 49,549</b>
<b>SUPPLEMENTAL CASH FLOW INFORMATION:</b>		
<b>NON-CASH INVESTING AND FINANCING ACTIVITIES:</b>		
Purchases of equipment in accounts payables and accrued liabilities	\$ 3,006	\$ 1,119
Accrued debt issuance costs	\$ 695	\$ 1,216
Capital lease obligations incurred for equipment	\$ 23	\$ 34

See accompanying notes, which are an integral part of these unaudited consolidated financial statements.

Notes to Unaudited Condensed Consolidated Financial Statements

**NOTE 1 - ORGANIZATION AND BUSINESS DESCRIPTION**

Bellicum Pharmaceuticals, Inc., or Bellicum, was incorporated in Delaware in July 2004 and is based in Houston, Texas. Bellicum is a clinical stage biopharmaceutical company focused on discovering and developing novel cellular immunotherapies for various forms of cancer, including both hematological cancers and solid tumors, as well as orphan inherited blood disorders. Bellicum is devoting substantially all of its present efforts to developing next-generation product candidates in some of the most important areas of cellular immunotherapy, including, hematopoietic stem cell transplantation, CAR T and TCR cell therapy.

In January 2017, Bellicum formed a wholly-owned subsidiary, Bellicum Pharma Limited, a private limited company organized under the laws of the United Kingdom for the purpose of developing product candidates in Europe. Bellicum and Bellicum Pharma Limited are collectively referred to herein as the Company.

**NOTE 2 - BASIS OF PRESENTATION AND MANAGEMENT PLANS**

The accompanying interim consolidated financial statements are unaudited. These unaudited interim financial statements have been prepared in accordance with U.S. generally accepted accounting principles (GAAP) and follow the requirements of the U.S. Securities and Exchange Commission (SEC) for interim reporting. As permitted under those rules, certain footnotes or other financial information that are normally required by GAAP have been omitted. In management's opinion, the unaudited interim condensed consolidated financial statements have been prepared on the same basis as the audited financial statements and include all adjustments necessary for the fair presentation of the Company's financial position and its results of operations and its cash flows for the periods presented. All such adjustments are normal and recurring in nature. These statements should be read in conjunction with the Company's Annual Report on Form 10-K filed for the fiscal year ended December 31, 2016 (the Annual Report). A copy of the Annual Report is available on the SEC's website, [www.sec.gov](http://www.sec.gov), under the Company's ticker symbol "BLCM" or on Bellicum's website, [www.bellicum.com](http://www.bellicum.com). The results for the interim periods are not necessarily indicative of the results expected for the full fiscal year or any other interim period. Any reference in these footnotes to applicable guidance is meant to refer to GAAP as found in the Accounting Standards Codification (ASC) and Accounting Standards Update (ASU) of the Financial Accounting Standards Board (FASB).

The Company has not generated any revenue from product sales to date and, if the Company does not successfully commercialize any of the Company's product candidates, the Company will not be able to generate product revenue or achieve profitability. As of June 30, 2017, the Company had an accumulated deficit of \$277.2 million.

The Company is subject to risks common to companies in the biotechnology industry and the future success of the Company is dependent on its ability to successfully complete the development of, and obtain regulatory approval for, its product candidates, manage the growth of the organization, obtain additional financing necessary in order to develop, launch and commercialize its product candidates, and compete successfully with other companies in its industry.

**NOTE 3 - SIGNIFICANT ACCOUNTING POLICIES**

*Use of Estimates*

The preparation of the consolidated financial statements in accordance with GAAP requires management to make certain estimates and judgments that affect the reported amounts of assets, liabilities, and expenses. Actual results could differ from those estimates.

*Consolidation*

All financial information presented includes the accounts of the Company and its wholly-owned subsidiary, for which there has been no activity to date. All significant intercompany balances and transactions have been eliminated in consolidation.

## Reclassifications

Certain prior period amounts in research and development expenses pertaining to license fees have been reclassified and listed separately to conform to the current period presentation. The reclassifications did not impact net loss or net loss per share.

## Revenue Recognition

The Company has not yet generated any revenue from product sales. The Company's source of revenue for 2017 and 2016 has been grant revenue related to a \$1.3 million research grant from the National Institutes of Health (NIH) covering the period from April 2013 to March 2017. The grant contract with the NIH expired at the end of the first quarter. The Company accrued revenue as work was performed and qualifying costs were incurred.

## Cash and Cash Equivalents

The Company considers all short-term, highly liquid investments with maturity of three months or less from the date of purchase to be cash equivalents.

## Net Loss and Net Loss per Share of Common Stock Attributable to Common Stockholders

Basic net loss per share attributable to common stockholders is calculated by dividing the net loss attributable to common stockholders by the weighted-average number of shares of common stock outstanding during the period without consideration for common stock equivalents.

The following outstanding shares of common stock equivalents were excluded from the computations of diluted net loss per share of common stock attributable to common stockholders for the periods presented, as the effect of including such securities would be anti-dilutive.

	As of June 30,	
	2017	2016
Common Stock Equivalents:	<b>Number of shares</b>	
Options to purchase common stock	4,929,137	4,518,961
Unvested shares of restricted stock units	81,250	—
Unvested shares of restricted stock	44,119	88,236
Total common stock equivalents	5,054,506	4,607,197

## Investment Securities

Consistent with its investment policy, the Company invests its cash allocated to fund its short-term liquidity requirements with prominent financial institutions in bank depository accounts and institutional money market funds. The Company invests the remainder of its cash in corporate debt securities and municipal bonds rated at least A quality or equivalent, U.S. Treasury notes and bonds and U.S. and state government agency-backed securities.

The Company determines the appropriate classification of investment securities based on whether they represent the investment of funds available for current operations, as defined in ASC 210-10-45-1 and ASC 210-10-45-2. The Company reevaluates its classification as of each balance sheet date. All investment securities owned are classified as available-for-sale. The cost of securities sold is based on the specific identification method. Investment securities are recorded as of each balance sheet date at fair value, with unrealized gains and, to the extent deemed temporary, unrealized losses reported as accumulated other comprehensive gain (loss), a separate component of stockholders' equity. Interest and dividend income on investment securities, accretion of discounts and amortization of premiums and realized gains and losses are included in interest income in the statements of operations and comprehensive income (loss).

An investment security is considered to be impaired when a decline in fair value below its cost basis is determined to be other than temporary. The Company evaluates whether a decline in fair value of an investment security is below its cost basis is other than temporary using available evidence. In the event that the cost basis of the investment security exceeds its fair value, the Company evaluates, among other factors, the amount and duration of the period that the fair value is less than the cost basis, the financial health of and business outlook for the issuer, including industry and sector performance, and operational and financing cash flow factors, overall market conditions and trends, the Company's intent to sell the investment security and whether it is more likely than not the Company would be required to sell the investment security before its anticipated recovery. If a decline

in fair value is determined to be other than temporary, the Company records an impairment charge in the statement of operations and comprehensive loss and establishes a new cost basis in the investment.

### ***Property and Equipment***

Furniture, equipment and software are recorded at cost and are depreciated using the straight-line method over the estimated useful lives of the related assets, which range from three to five years. Leasehold improvements are amortized over the shorter of the estimated useful life or the remaining lease term.

### ***Debt Issuance Costs***

Costs related to debt issuance are presented in the balance sheet as a direct deduction from the carrying amount of the debt liability, consistent with debt discounts and are amortized using the effective interest method. Amortization of debt issuance costs are included in interest expense.

### ***Deferred Rent and Rent***

The Company recognizes rent expense for leases with increasing annual rents on a straight-line basis over the term of the lease. The amount of rent expense in excess of cash payments is classified as accrued rent. Any lease incentives received are deferred and amortized over the term of the lease.

### ***Equity Issuance Costs***

Equity issuance costs represent costs paid to third parties in order to obtain equity financing. These costs have been netted against the proceeds of the equity issuances.

### ***Licenses and Patents***

Licenses and patent costs for technologies that are utilized in research and development and have no alternative future use are expensed as incurred. Costs related to the license of patents from third parties and internally developed patents are classified as research and development expenses. Legal costs related to patent applications and maintenance are classified as general and administrative expenses.

### ***Clinical Trials***

The Company estimates its clinical trial expense accrual for a given period based on the number of patients enrolled at each site, estimated cost per patient, and the length of time each patient has been in the trial, less amounts previously billed. These accruals are recorded in accrued expenses and other current liabilities, and the related expense is recorded in research and development expense.

### ***Research and Development***

Research and development expenses consist of expenses incurred in performing research and development activities, including compensation and benefits for research and development employees and consultants, facilities expenses, overhead expenses, cost of laboratory supplies, manufacturing expenses, fees paid to third parties and other outside expenses.

Research and development costs are expensed as incurred. Clinical trial and other development costs incurred by third parties are expensed as the contracted work is performed. The Company accrues for costs incurred as the services are being provided by monitoring the status of the clinical trial or project and the invoices received from its external service providers. The Company estimates depend on the timeliness and accuracy of the data provided by the vendors regarding the status of each project and total project spending. The Company adjusts its accrual as actual costs become known. Where contingent milestone payments are due to third parties under research and development arrangements, the milestone payment obligations are expensed when the milestone events are achieved.

### ***Collaboration Agreements***

The Company enters into collaboration agreements that include varying arrangements regarding which parties perform and bear the costs of research and development activities. The Company may share the costs of research and development activities with a collaborator, or the Company may be reimbursed for all or a significant portion of the costs of the Company's research and development activities. The Company records its internal and third-party development costs associated with these collaborations as research and development expenses. When the Company is entitled to reimbursement of all or a portion of the research and development expenses that it incurs under a collaboration, the Company records those reimbursable amounts as a deduction to the

research and development expenses. If the collaboration is a cost-sharing arrangement in which both the Company and its collaborator perform development work and share costs. The Company also recognizes, as research and development expenses in the period when its collaborator incurs development expenses, the portion of the collaborator's development expenses that the Company is obligated to reimburse.

### ***Contract Manufacturing Services***

Contract manufacturing services are expensed as incurred. Prepaid expenses are capitalized and amortized as services are performed.

### ***Share-Based Compensation***

The Company accounts for its share-based compensation in accordance with ASC 718, *Compensation - Stock Compensation*, which requires the measurement and recognition of compensation expense for all share-based payment awards made to employees and directors to be recognized in the financial statements, based on their fair value. The Company measures share-based compensation to consultants in accordance with ASC 505-50, *Equity-Based Payments to Non-Employees*, and recognizes the fair value of the award over the period the services are rendered.

The Company uses the Black-Scholes option-pricing model to estimate the fair value of stock option awards. The fair value is recognized as expense, net of estimated forfeitures, over the requisite service period, which is generally the vesting period of the respective award on a straight-line basis.

### ***Application of New Accounting Standards***

During 2017, the Company adopted ASU No. 2016-09, "*Compensation - Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting*", which is intended to simplify the financial reporting of the income tax impacts of share-based compensation arrangements. The classification guidance under ASU No. 2016-09 requires the recognition of excess tax benefits from share-based compensation arrangements as a discrete item within income tax benefit rather than additional paid-in capital and the classification guidance requiring presentation of excess tax benefits from share-based compensation arrangements as an operating activity on the statement of cash flows, rather than as a financing activity.

The adoption of ASU No 2016-09 had no immediate impact on our financial statements and related disclosures because the Company does not currently recognize a tax benefit related to share-based compensation expense as we maintain net operating loss carryforwards and have established a valuation allowance against the entire net deferred tax asset as of June 30, 2017. Further, we have elected to continue to estimate the number of stock-based awards expected to vest, as permitted by ASU 2016-09, rather than electing to account for forfeitures as they occur.

In August 2016, the FASB issued ASU 2016-15, "*Classification of Certain Cash Receipts and Cash Payments*," which provides guidance on the classification of certain cash receipts and payments in the statement of cash flows. The pronouncement is effective for annual periods beginning after December 15, 2017, and interim periods within those annual periods. Earlier application is permitted in any interim or annual period. The Company adopted this standard in 2017.

### ***New Accounting Requirements and Disclosures***

In January 2016, the FASB issued ASU No. 2016-01, "*Recognition and Measurement of Financial Assets and Financial Liabilities*." ASU 2016-01 requires that most equity investments be measured at fair value, with subsequent changes in fair value recognized in net income. The pronouncement also impacts financial liabilities under the fair value option and the presentation and disclosure requirements for financial instruments. This pronouncement is effective for fiscal years, and interim periods within those years, beginning after December 15, 2017, and early adoption is not permitted. The Company does not believe that the adoption of this pronouncement will have a material impact on the Company's consolidated financial statements.

In February 2016, the FASB issued ASU No. 2016-02, "*Leases*," which requires companies that lease assets to recognize a right-of-use asset and a lease liability, initially measured at the present value of the lease payments, in its balance sheet. The pronouncement will also require additional disclosures about the amount, timing and uncertainty of cash flows arising from leases. This pronouncement is effective for fiscal years, and interim periods within those years, beginning after December 15, 2018, and early adoption is permitted. The Company is currently evaluating the impact of this pronouncement on the Company's consolidated financial statements.

#### NOTE 4 - CASH, CASH EQUIVALENTS AND RESTRICTED CASH

As of June 30, 2017 and December 31, 2016, respectively, the Company maintained \$4.4 million and \$9.6 million as restricted cash. The funds are being held by an escrow agent to cover the construction costs related to the Company's facility lease. The restricted cash is subject to the terms of the escrow agreement and the requirements specified therein. The amount will decrease as the Company and its landlord authorize completion of certain aspects of the building improvements.

The following table provides a reconciliation of cash, cash equivalents and restricted cash reported within the balance sheets that sum to the total of the same such amounts shown in the statements of cash flows.

	June 30, 2017	December 31, 2016
	(in thousands)	
Cash and cash equivalents <sup>(1)</sup>	\$ 75,148	\$ 33,140
Restricted cash, noncurrent	4,383	9,640
Total cash, cash equivalents and restricted cash shown in the statements of cash flows	<u>\$ 79,531</u>	<u>\$ 42,780</u>

<sup>(1)</sup> As of June 30, 2017 and December 31, 2016, the Company invested approximately \$65.1 million and \$23.5 million, respectively, in cash equivalent instruments.

#### NOTE 5 - FAIR VALUE MEASUREMENTS AND INVESTMENT SECURITIES

##### *Fair Value Measurement*

The Company follows ASC, Topic 820, *Fair Value Measurements and Disclosures*, or ASC 820, for application to financial assets. ASC 820 defines fair value, provides a consistent framework for measuring fair value under GAAP and requires fair value financial statement disclosures. ASC 820 applies only to the measurement and disclosure of financial assets that are required or permitted to be measured and reported at fair value under other ASC topics (except for standards that relate to share-based payments such as ASC Topic 718, *Compensation - Stock Compensation*).

The valuation techniques required by ASC 820 may be based on either observable or unobservable inputs. Observable inputs reflect readily obtainable data from independent sources, and unobservable inputs reflect the Company's market assumptions.

These inputs are classified into the following hierarchy:

*Level 1 Inputs - quoted prices (unadjusted) in active markets for identical assets that the reporting entity has the ability to access at the measurement date;*

*Level 2 Inputs - inputs other than quoted prices included within Level 1 that are observable for the asset, either directly or indirectly; and*

*Level 3 Inputs - unobservable inputs for the assets.*

The following tables present the Company's investment securities (including, if applicable, those classified on the Company's balance sheet as cash equivalents) that are measured at fair value on a recurring basis as of June 30, 2017 and December 31, 2016, respectively:

	Fair Value Measurements at Reporting Date			
	Balance at June 30, 2017	Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
(in thousands)				
<b>Cash Equivalents:</b>				
Money market funds	\$ 65,060	\$ 65,060	\$ —	\$ —
<b>Total Cash Equivalents</b>	<b>\$ 65,060</b>	<b>\$ 65,060</b>	<b>\$ —</b>	<b>\$ —</b>
<b>Investment Securities:</b>				
U.S. government agency-backed securities	\$ 19,120	\$ —	\$ 19,120	\$ —
Corporate debt securities	38,710	—	38,710	—
Municipal bonds	1,656	—	1,656	—
<b>Total Investment Securities</b>	<b>\$ 59,486</b>	<b>\$ —</b>	<b>\$ 59,486</b>	<b>\$ —</b>

	Fair Value Measurements at Reporting Date			
	Balance at December 31, 2016	Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
(in thousands)				
<b>Cash Equivalents:</b>				
Money market funds	\$ 23,459	\$ 23,459	\$ —	\$ —
<b>Total Cash Equivalents</b>	<b>\$ 23,459</b>	<b>\$ 23,459</b>	<b>\$ —</b>	<b>\$ —</b>
<b>Investment Securities:</b>				
U.S. government agency-backed securities	\$ 25,908	\$ —	\$ 25,908	\$ —
Corporate debt securities	42,053	—	42,053	—
Municipal bonds	2,671	—	2,671	—
<b>Total Investment Securities</b>	<b>\$ 70,632</b>	<b>\$ —</b>	<b>\$ 70,632</b>	<b>\$ —</b>

U.S. Treasury, U.S. government agency-backed securities, corporate debt securities and municipal bonds are valued based on various observable inputs such as benchmark yields, reported trades, broker/dealer quotes, benchmark securities and bids.

Investment securities, all classified as available-for-sale, consisted of the following as of June 30, 2017 and December 31, 2016:

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Aggregate Estimated Fair Value
	(in thousands)			
<b>June 30, 2017</b>				
<b>Investment Securities:</b>				
U.S. government agency-backed securities	\$ 19,145	\$ —	\$ (25)	\$ 19,120
Corporate debt securities	38,691	37	(18)	38,710
Municipal bonds	1,656	—	—	1,656
<b>Total Investment Securities</b>	<b>\$ 59,492</b>	<b>\$ 37</b>	<b>\$ (43)</b>	<b>\$ 59,486</b>

December 31, 2016	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Aggregate Estimated Fair Value
	(in thousands)			
U.S. government agency-backed securities	\$ 25,906	\$ 7	\$ (5)	\$ 25,908
Corporate debt securities	42,040	41	(28)	42,053
Municipal bonds	2,669	2	—	2,671
Total	\$ 70,615	\$ 50	\$ (33)	\$ 70,632

The Company's investment securities as of June 30, 2017, will reach maturity between July 2017 and January 2019, with a weighted-average maturity date in February 2018.

At December 31, 2016, the Company classified all of its available-for-sale investment securities, including those with maturities beyond one year, as current assets on the accompanying balance sheets based on the highly liquid nature of the investment securities and because these investment securities were considered available for use in current operations. However, as of June 30, 2017, the Company reclassified the investment securities with maturity dates beyond one year as non-current assets as the Company does not intend to utilize them to fund current operations.

#### NOTE 6 - PROPERTY AND EQUIPMENT

Property and equipment consists of the following:

	June 30, 2017	December 31, 2016
	(in thousands)	
Leasehold improvements	\$ 19,898	\$ 12,131
Lab equipment	7,376	5,397
Office furniture	1,599	1,560
Manufacturing equipment	1,694	1,275
Computer and office equipment	947	623
Equipment held under capital leases	204	181
Software	136	85
Total	31,854	21,252
Less: accumulated depreciation	(6,396)	(4,748)
Property and equipment, net	\$ 25,458	\$ 16,504

During the six months ended June 30, 2017 and 2016, the Company recorded \$1.6 million and \$1.0 million of depreciation expense, respectively. Leasehold improvements as of June 30, 2017 includes \$2.5 million related to costs incurred by the landlord.

#### NOTE 7 – ACCRUED EXPENSES AND OTHER CURRENT LIABILITIES

Accrued expenses and other liabilities consist of the following:

	June 30, 2017	December 31, 2016
	(in thousands)	
Accrued construction costs	\$ 2,304	\$ 3,120
Accrued payroll	1,960	1,568
Accrued patient treatment costs	1,702	1,006
Accrued manufacturing costs	1,578	1,704
Accrued other	2,620	1,965
Total accrued expenses and other current liabilities	\$ 10,164	\$ 9,363

## **NOTE 8 - DEBT**

On March 10, 2016, (the Closing Date), the Company, entered into a Loan and Security Agreement (the Loan Agreement) with Hercules Capital, Inc. Hercules Technology II, L.P., and Hercules Technology III, L.P., or collectively, Hercules, as a lender, under which the Company borrowed \$15.0 million on the Closing Date. The Company borrowed an additional \$5.0 million and \$10.0 million on September 15, 2016 and March 8, 2017, respectively. The total debt is secured by a lien covering substantially all of the Company's assets, excluding intellectual property, but including proceeds from the sale, license, or disposition of our intellectual property. The interest rate will be calculated at a rate equal to the greater of either (i) 9.35% plus the prime rate as reported in The Wall Street Journal minus 3.50%, or (ii) 9.35%. The interest rate on amounts borrowed under the Loan Agreement was 9.60% and 10.10% at December 31, 2016 and June 30, 2017, respectively.

As a result of the additional borrowing on March 8, 2017, the interest only period was extended for an additional six months through March 2018. Beginning in April 2018, equal monthly payments of principal and interest are due over a 24 month period through the maturity date of March 1, 2020, upon which the remaining principal balance and the final facility charge of \$2.1 million will be due and payable.

The Company paid expenses related to the Loan Agreement of \$0.2 million, which, along with the final facility charge of \$2.1 million, have been recorded as deferred financing costs, which offset long-term debt on the Company's balance sheet. The deferred financing costs are being amortized over the term of the loan as interest expense. During the three and six months ended June 30, 2017, interest expense included \$222,000 and \$380,000, respectively, of amortized deferred financing costs. During the three and six months ended June 30, 2016, interest expense included \$122,000 and \$150,000, respectively, of amortized deferred financing costs.

Management believes that the carrying value of the debt facility approximates its fair value, as the Company's debt facility bears interest at a rate that approximates prevailing market rates for instruments with similar characteristics. The fair value of the Company's debt facility is determined under Level 2 in the fair value hierarchy.

## **NOTE 9 - STOCKHOLDERS' EQUITY**

On March 29, 2017, the Company completed an underwritten public offering of 5,750,000 shares of its common stock at a price of \$12.00 per share, for an aggregate offering size of \$69.0 million, pursuant to a registration statement on Form S-3 (File No. 333-209012) that was declared effective by the SEC on February 1, 2016. The net proceeds to the Company, after deducting underwriting discounts, and commissions and offering expenses was approximately \$64.6 million. These costs have been recorded as a reduction of the proceeds received from the offering.

On June 28, 2017, the Company filed a Registration Statement on Form S-3 (File No. 333-219021) for the offer and sale by the Company of its securities in one or more offerings for up to an aggregate maximum offering price of \$150,000,000 (which includes \$81,000,000 of unsold securities that were previously registered under the Company's Registration Statement on Form S-3 (File No. 333-191819), which was filed on January 15, 2016 and declared effective on February 1, 2016). The SEC declared the registration statement effective on July 12, 2017.

## **NOTE 10 - SHARE-BASED COMPENSATION PLANS**

At June 30, 2017, the Company had share-based awards outstanding under four share-based compensation plans, as follows:

### 2006 Stock Option Plan

The 2006 Stock Option Plan (the 2006 Plan) provided for the issuance of non-qualified stock options to employees, including officers, non-employee directors and consultants to the Company. As of June 30, 2017, there were 146,210 shares of common stock reserved for issuance pursuant to outstanding options previously granted under the 2006 Plan. The 2006 Plan was terminated by the Board in October 2014.

### 2011 Stock Option Plan

The 2011 Stock Option Plan (the 2011 Plan) provided for the issuance of incentive and non-qualified stock options to employees, including officers, non-employee directors and consultants to the Company. As of June 30, 2017, there were 1,712,181 shares of common stock reserved for issuance pursuant to outstanding options previously granted under the 2011 Plan. The 2011 Plan terminated upon the effectiveness of the 2014 Plan described below.

### 2014 Equity Incentive Plan

The 2014 Equity Incentive Plan (the 2014 Plan) became effective in December 2014, upon the closing of the Company's initial public offering. The 2014 Plan provides for the issuance of equity awards, including incentive and non-qualified stock options and restricted stock awards to employees, including officers, non-employee directors and consultants to the Company or its affiliates. The 2014 Plan also provides for the grant of performance cash awards and performance-based stock awards.

On June 14, 2017, the stockholders approved an amendment to the 2014 Plan to, among other things, increase the number of shares of common stock authorized for issuance under the 2014 Plan by 3,100,000 shares and eliminate the prior provision in the 2014 Plan that allowed the Company's Board of Directors to reprice stock options without stockholder approval.

The aggregate number of shares of common stock that are authorized for issuance under the 2014 Plan is 6,090,354 shares, plus any shares subject to outstanding options that were granted under the 2011 Plan or 2006 Plan that are forfeited, terminated, expired or are otherwise not issued. As of June 30, 2017, there were 3,414,184 shares available for issuance under the 2014 Plan.

### 2014 Employee Stock Purchase Plan

The 2014 Employee Stock Purchase Plan (the ESPP) provides for eligible Company employees, as defined by the ESPP, to be given an opportunity to purchase the Company's common stock at a discount, through payroll deductions, with stock purchases being made upon defined purchase dates. The ESPP authorizes the issuance of up to 550,000 shares of common stock to participating employees, and allows eligible employees to purchase shares of common stock at a 15% discount from the grant date fair market value. During the six months ended June 30, 2017 and 2016, 19,204 and 17,115 shares were purchased under the ESPP. As of June 30, 2017, there were 475,477 shares available for issuance under the ESPP.

A summary of activity within the ESPP follows:

	Six months ended June 30,	
	2017	2016
	(amounts in thousands)	
Deductions from employees	\$ 157	\$ 188
Share-based compensation expense recognized	\$ 136	\$ 133
Remaining share-based compensation expense	\$ 357	\$ 134

### Share-Based Compensation Expense

The valuation of the share-based compensation awards is a significant accounting estimate that requires the use of judgments and assumptions that are likely to have a material impact on the financial statements. The fair value of option grants is determined using the Black-Scholes option-pricing model. Expected volatilities utilized in the model are based on implied volatilities from traded stocks of peer companies. Similarly, the dividend yield is based on historical experience and the estimate of future dividend yields. The risk-free interest rate is derived from the U.S. Treasury yield curve in effect at the time of grant. The expected term of the options is based on the average period the stock options are expected to remain outstanding. As the Company does not have sufficient historical information to develop reasonable expectations about future exercise patterns and post-vesting employment termination behavior, the expected term is calculated as the midpoint between the weighted-average vesting term and the contractual expiration period also known as the simplified method.

The fair value of the option grants have been estimated, with the following weighted-average assumptions:

	Six months ended June 30,	
	2017	2016
Risk-free interest rate	2.09%	1.81%
Volatility	71.6%	72.0%
Expected life (years)	6.08	6.08
Expected dividend yield	—%	—%

At June 30, 2017, total compensation cost not yet recognized was \$24.9 million and the weighted-average period over which this amount is expected to be recognized is 2.3 years. During the three and six months ended June 30, 2017, the Company received cash proceeds from the exercise of stock options of approximately \$0.7 million and \$1.3 million, respectively. The aggregate intrinsic value of options exercised during the three and six months ended June 30, 2017 was \$0.6 million and \$2.1 million.

Share-based compensation expense by classification for the three and six months ended June 30, 2017 and 2016 are as follows:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2017	2016	2017	2016
	(in thousands)		(in thousands)	
Research and development	\$ 1,484	\$ 1,374	\$ 3,068	\$ 2,760
General and administrative	1,706	1,744	3,486	3,423
Total	\$ 3,190	\$ 3,118	\$ 6,554	\$ 6,183

The following table summarizes the stock option and stock award activity for all stock plans during the six months ended June 30, 2017:

	Options and Inducement awards	Weighted-Average Exercise Price Per Share	(in years) Weighted-Average Contractual Life	(in thousands) Aggregate Intrinsic Value <sup>(1)</sup>
December 31, 2016 <sup>(2)</sup>	4,590,945	\$ 12.21	7.59	\$ 21,254
Granted <sup>(3)</sup>	1,020,850	\$ 11.35		
Exercised	(283,166)	\$ 4.58		
Forfeited	(274,123)	\$ 15.20		
Outstanding at June 30, 2017	5,054,506	\$ 12.31	7.57	\$ 15,305
Exercisable at June 30, 2017	2,621,427	\$ 10.41	6.59	\$ 12,424

<sup>(1)</sup> The aggregate intrinsic value is calculated as the fair value of restricted stock, restricted stock units and the difference between the exercise price of the underlying options and the estimated fair value of the common stock for the options that were in the money at June 30, 2017.

<sup>(2)</sup> At June 30, 2017 and December 31, 2016, there were 44,119 and 58,825 shares of unvested restricted common stock outstanding, respectively.

<sup>(3)</sup> Includes 500,000 of inducement option awards and 87,500 of restricted stock units granted in the during 2017.

#### NOTE 11 - COMMITMENTS AND CONTINGENCIES

##### *Litigation*

None.

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

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our Annual Report on Form 10-K for the year ended December 31, 2016, or our Annual Report, as well as our unaudited consolidated financial statements and related notes included in this Quarterly Report on Form 10-Q, or this Quarterly Report.

### Forward-Looking Statements

This report contains forward-looking statements and information within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act, which are subject to the “safe harbor” created by those sections. These forward-looking statements include, but are not limited to, statements concerning our strategy, future operations, future financial position, future revenues, projected costs, prospects and plans and objectives of management. The words “anticipate,” “believe,” “could,” “designed,” “estimate,” “expect,” “intend,” “may,” “plan,” “potential,” “project,” “will,” “would,” and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements and you should not place undue reliance on our forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements that we make. These forward-looking statements involve risks and uncertainties that could cause our actual results to differ materially from those in the forward-looking statements, including, without limitation, the risks set forth in Part II, Item 1A, “Risk Factors” in the Quarterly Report on Form 10-Q, filed May 8, 2017, Part I, Item 1A, “Risk Factors” in our Annual Report and in our other filings with the SEC. The forward-looking statements are applicable only as of the date on which they are made, and we do not assume any obligation to update any forward-looking statements.

### Overview

We are a clinical stage biopharmaceutical company focused on discovering and developing novel cellular immunotherapies for various forms of cancer, including both hematological cancers and solid tumors, as well as orphan inherited blood disorders. We are using our proprietary Chemical Induction of Dimerization, or CID technology platform to engineer our product candidates with switch technologies that are designed to control components of the immune system in real time. By incorporating our CID platform, our product candidates may offer better safety and efficacy outcomes than are seen with current cellular immunotherapies.

We are developing next-generation product candidates in some of the most important areas of cellular immunotherapy, including hematopoietic stem cell transplantation, or HSCT, chimeric antigen receptor T cell therapy, or CAR T, and T cell receptors, or TCRs. HSCT, also known as bone marrow transplantation, has for decades been curative for many patients with hematological cancers or orphan inherited blood disorders. However, adoption of HSCT to date has been limited by the risks of transplant-related morbidity and mortality from graft-versus-host-disease, or GvHD, and the potential for serious infections due to the lack of an effective immune system following a transplant. CAR T and TCR cell therapies are an innovative approach in which a patient’s T cells are genetically modified to carry chimeric antigen receptors, or CARs, or TCRs which redirect the T cells against cancer cells. While high objective response rates have been reported in some hematological malignancies, serious and sometimes fatal toxicities have arisen in patients treated with CAR T cell therapies. These toxicities include instances in which the CAR T cells have caused high levels of cytokines due to over-activation, referred to as “cytokine release syndrome,” or CRS, neurologic toxicities and cases in which they have attacked healthy organs. In each case, these toxicities have sometimes resulted in death. In solid tumors, where the behavior of CAR T cells is particularly unpredictable and results have been inconsistent, enhanced CAR T cell approaches are being developed that raise even greater safety concerns.

Our proprietary CID platform is designed to address these challenges. Events inside a cell are controlled by cascades of specialized signaling proteins. CID consists of molecular switches, modified forms of these signaling proteins, which are triggered inside the patient by infusion of a small molecule, rimiducid, instead of by natural upstream signals. We include these molecular switches in the appropriate immune cells and deliver the cells to the patient in the manner of conventional cellular immunotherapy. We have developed two such switches: a “safety switch,” designed to initiate programmed cell death, or apoptosis, of the immunotherapy cells, and an “activation switch,” designed to stimulate activation and in some cases proliferation and/or persistence of the immunotherapy cells. Each of our product candidates incorporates one of these switches, for enhanced, real time control of safety and efficacy:

- CaspaCIDE is our safety switch, incorporated into our HSCT and TCR product candidates, where it is inactive unless the patient experiences a serious side effect. In that event, rimiducid is administered to induce

Caspase-9, or iCaspase, switch activation to fully or partially eliminate the cells, with the goal of terminating or attenuating the therapy and resolving the serious side effect.

- Our “Go” switch incorporated into our GoCAR-T product candidates, is an activation switch designed to allow control of the activation and proliferation of the T cells through the scheduled administration of a course of rimiducid infusions that may continue until the desired patient outcome is achieved. In the event of emergence of side effects, the level of activation of the GoCAR-T cells is designed to be attenuated by extending the interval between rimiducid doses, reducing the dosage per infusion, or suspending further rimiducid administration.

In addition, we have an active research effort to develop other advanced molecular switch approaches, including a “dual-switch” that is designed to provide a user-controlled system for managing persistence and safety of tumor antigen-specific CAR T cells.

By incorporating our novel switch technologies, we are developing product candidates with the potential to elicit positive clinical outcomes and ultimately change the treatment paradigm in various areas of cellular immunotherapy. Our lead clinical product candidate is described below.

- **BPX-501** is a CaspaCIDE product candidate designed as an adjunct T cell therapy administered after allogeneic HSCT. BPX-501 is designed to improve transplant outcomes by enhancing the recovery of the immune system following an HSCT procedure. BPX-501 addresses the risk of infusing donor T cells by enabling the elimination of donor T cells through the activation of the CaspaCIDE safety switch if there is an emergence of uncontrolled GvHD.

The European Commission has granted orphan drug designations to BPX-501 for treatment in HSCT, and for activator agent rimiducid for the treatment of GvHD. Additionally, BPX-501 and rimiducid have received orphan drug status from the U.S. Food and Drug Administration, or the FDA, as a combination replacement T-cell therapy for the treatment of immunodeficiency and GvHD after allogeneic HSCT.

During 2016, we discussed with the European Medicines Agency, or the EMA, clinical and regulatory plans to support the filing of Marketing Authorization Applications, or MAAs, for BPX-501 and rimiducid in Europe, initially for pediatric patients with certain orphan inherited blood disorders or treatment-refractory hematological cancers. Based on the regulatory discussions, we believe that data from the European arm of our BP-004 trial, expanded to enroll additional patients, with a primary endpoint of event-free survival, with events defined as transplant-related or non-relapse mortality (severe GvHD and serious infection) at six months, could form the basis of MAAs for BPX-501 and rimiducid. In addition, the EMA’s Committee for Medicinal Products for Human Use, or the CHMP, has agreed that review and approval under “exceptional circumstances” may be suitable, recognizing that a randomized trial may not be feasible in the pediatric haploidentical hematopoietic stem cell transplant setting. Exceptional circumstances may be granted for medicines that treat very rare diseases, or where controlled studies are impractical or not consistent with accepted principles of medical ethics. In place of a randomized trial, we intend to collect data from a concurrent observational study in the pediatric matched unrelated donor hematopoietic stem cell transplant setting, which will include both retrospective patients and prospective patients.

We are finalizing plans for future U.S. clinical trials of BPX-501. We plan to pursue one or more clinical trials with the intent of filing for FDA approval, partially supported by a \$16.9 million award from the Cancer Prevention and Research Institute of Texas, or CPRIT.

In addition to BPX-501, our clinical stage product candidates which are designed to overcome limitations of CAR T and TCR therapies, include the following:

- **BPX-701** is a CaspaCIDE-enabled natural high affinity TCR product candidate designed to target malignant cells expressing the preferentially-expressed antigen in melanoma, or PRAME. Initial planned indications for BPX-701 development are refractory or relapsed acute myeloid leukemia, or AML, and myelodysplastic syndromes, or MDS, with an additional study planned for metastatic uveal melanoma. Each of these is an orphan indication where PRAME is highly expressed and for which current treatment options are limited. A Phase 1 dose finding clinical trial in patients with relapsed or refractory myeloid neoplasms is being conducted at the Oregon Health & Science University Hospital in Portland, Oregon.
- **BPX-601** is a GoCAR-T product candidate containing our proprietary inducible MyD88/CD40, or iMC, activation switch, designed to treat solid tumors expressing prostate stem cell antigen, or PSCA. Preclinical

data shows enhanced T cell proliferation, persistence and *in vivo* anti-tumor activity compared to traditional CAR T therapies. A Phase 1 clinical trial in patients with non-resectable pancreatic cancer is being conducted at the Baylor Sammons Cancer Center in Dallas, Texas.

- **CD19 CAR-T Program** - We are working with academic collaborators to establish clinical proof of concept for CaspaCIDE<sup>®</sup> in the CD19 setting. We believe that this strategy allows a cost-effective approach for clinical evaluation of differentiated product candidates in the highly competitive landscape of CD19-targeted therapies in development. As part of this strategy, in November 2016 we announced an expanded collaboration with Ospedale Pediatrico Bambino Gesù, a leading European pediatric research center and hospital, and expects a CaspaCIDE-enabled CD19 CAR-T cell therapy to enter clinical development in the second half of 2017.

We have developed an efficient and scalable process to manufacture genetically modified T cells of high quality, which T cells are currently being manufactured in-house and by our third-party contract manufacturers to produce BPX-501 for our clinical trials. We are leveraging this process, as well as our resources, capabilities and expertise for the manufacture of our CAR T and TCR product candidates.

#### **Critical Accounting Policies and Estimates**

The preparation of consolidated financial statements in conformity with generally accepted accounting principles requires us to make judgments, estimates and assumptions in the preparation of our consolidated financial statements and accompanying notes. Actual results could differ from those estimates. We believe there have been no material changes in our critical accounting policies as discussed in our Annual Report.

## Financial Operations Overview

### **Grant Revenue**

To date, we have only recognized revenue from government grants and we have not generated any product revenue. Grant funds are received based on the progress of the program being funded. In cases when the grant money is not received until expenses for the program are incurred, we accrue the revenue based on the costs incurred for the programs associated with the grant.

In the future, we may generate revenue from a combination of product sales, government or other third-party grants, marketing and distribution arrangements and other collaborations, strategic alliances and licensing arrangements or a combination of these approaches. We expect that any revenue we generate will fluctuate as a result of the timing and amount of license fees, milestone and other payments, and the amount and timing of payments that we receive upon the sale of our products, to the extent any are successfully commercialized. If we fail to complete the development of our product candidates in a timely manner or obtain regulatory approval of them, our ability to generate future revenue, and our results of operations and financial position, would be materially adversely affected. Our policy is to recognize revenue in accordance with ASC 605. See the discussion of “Collaboration Agreements” contained within Note 3 to the unaudited condensed consolidated financial statements contained herein.

### **NIH Grant**

During 2013, we entered into a grant agreement with the NIH. The grant is a modular five year grant with funds being awarded each year based on the progress of the program being funded. Grant money is not received until expenses for the program are incurred. We have been awarded approximately \$1.4 million to date, of which \$1.3 million has been received. We accrued the revenue based on the costs incurred for the programs associated with the grant. The fourth year of the grant expired March 31, 2017.

### **Research and Development Expenses**

To date, our research and development expenses have related primarily to the development of our CID platform and the identification and development of our product candidates. Research and development expenses consist of expenses incurred in performing research and development activities, including compensation, share-based compensation expense and benefits for research and development employees and consultants, facilities expenses, overhead expenses, cost of laboratory supplies, manufacturing expenses, fees paid to third parties and other outside expenses.

Research and development costs are expensed as incurred. Clinical trial and other development costs incurred by third parties are expensed as the contracted work is performed. We accrue for costs incurred as the services are being provided by monitoring the status of the clinical trial or project and the invoices received from our external service providers. We adjust our accrual as actual costs become known. Where contingent milestone payments are due to third parties under research and development arrangements, the milestone payment obligations are expensed when the milestone events are achieved. See the discussion of “Research and Development” expenses in Note 3 to the unaudited condensed consolidated financial statements included herein.

We utilize our research and development personnel and infrastructure resources across several programs, and many of our costs are not specifically attributable to a single program. Accordingly, we cannot state precisely our total costs incurred on a program-by-program basis.

Research and development activities are central to our business model. Product candidates in later stages of clinical development generally have higher development costs than those in earlier stages of clinical development, primarily due to the increased size and duration of later-stage clinical trials. Thus, it is difficult to determine with certainty the duration and completion costs of our current or future preclinical programs and clinical trials of our product candidates.

The duration, costs and timing of clinical trials and development of our product candidates will depend on a variety of factors that include, but are not limited to, the following:

- per patient clinical trial costs;
- the number of patients that participate in the clinical trials;

- the number of sites included in the clinical trials;
- the process of collection, differentiation, selection and expansion of immune cells for our cellular immuno-therapies;
- the countries in which the clinical trials are conducted;
- the outcomes of our clinical trials;
- the length of time required to enroll eligible patients;
- the number of doses that patients receive;
- the drop-out or discontinuation rates of patients;
- potential additional safety monitoring or other studies requested by regulatory agencies;
- the duration of patient follow-up;
- the efficacy and safety profile of the product candidates; and
- the ability to successfully manufacture patient doses

In addition, the potential for success of each product candidate will depend on numerous factors, including clinical trial outcomes, competition, manufacturing capability and commercial viability. We determine which programs to pursue and how much to fund each program in response to ongoing scientific assessments, competitive developments, clinical trial results, as well as an assessment of each product candidate's commercial potential.

We expect our research and development expenses to increase over the next several years as we progress our business plan which includes conducting ongoing and new clinical trials for BPX-501, BPX-601 and BPX-701 and advancing additional product candidates into clinical development, manufacturing clinical trial and preclinical study materials, expanding our research and development and process development and optimization efforts, seeking regulatory approvals for our product candidates that successfully complete clinical trials, and hiring additional personnel.

#### ***General and Administrative Expenses***

General and administrative expenses consist primarily of salaries and other related costs, including share-based compensation, for personnel in executive, finance, accounting, business development, legal and human resources functions. Other significant costs include facility costs not otherwise included in research and development expenses, legal fees relating to patent and corporate matters, insurance costs and professional fees for consultancy, accounting, audit and investor relations.

As our research and development activities continue to expand, we also expect general and administrative expenses to increase due to the anticipated need for additional supporting infrastructure, primarily personnel costs. We also expect general and administrative expenses to increase as we prepare for commercialization of BPX-501, continue to evaluate the commercial opportunities for BPX-601 and BPX 701, and as we begin operations in our European subsidiary.

#### ***Income Taxes***

We did not recognize any income tax expense for the three and six months ended June 30, 2017.

## Results of Operations

### Comparison of the Three and Six Months Ended June 30, 2017 and 2016

The following table sets forth our results of operations for the three and six months ended June 30, 2017 and 2016:

	Three Months Ended June 30,			Six Months Ended June 30,		
	2017	2016	Change	2017	2016	Change
	(in thousands)			(in thousands)		
Grant revenues	\$ —	\$ 101	\$ (101)	\$ 128	\$ 193	\$ (65)
Operating expenses:						
Research and development	17,959	12,031	5,928	33,254	22,889	10,365
License fees	343	150	193	698	280	418
General and administrative	5,486	4,179	1,307	11,413	8,463	2,950
Total operating expenses	23,788	16,360	7,428	45,365	31,632	13,733
Loss from operations	(23,788)	(16,259)	(7,529)	(45,237)	(31,439)	(13,798)
Other income (expense):						
Interest income	307	236	71	504	463	41
Interest expense	(976)	(486)	(490)	(1,697)	(608)	(1,089)
Total other income (expense)	(669)	(250)	(419)	(1,193)	(145)	(1,048)
Net loss	\$ (24,457)	\$ (16,509)	\$ (7,948)	\$ (46,430)	\$ (31,584)	\$ (14,846)

### Research and Development Expenses

Research and development expenses were \$18.0 million and \$12.0 million for the three months ended June 30, 2017 and June 30, 2016, respectively. The \$5.9 million increase in research and development expenses for the three months ended June 30, 2017, was due to an increase in clinical and manufacturing costs of \$2.5 million related to BPX-501, primarily due to increased patient enrollment in our clinical trials. Increased research and development expenses in the three months ended June 30, 2017 also includes \$0.3 million under collaboration agreements, and \$3.3 million in increased personnel, overhead charges and manufacturing start-up expenses. Expenses related to BPX-601 were approximately \$0.7 million higher in the 2016 period, as we were performing pre-clinical, process development and regulatory work in preparation for beginning clinical trials.

Research and development expenses were \$33.3 million and \$22.9 million for the six months ended June 30, 2017 and 2016, respectively. The \$10.4 million increase in research and development expenses for the six months ended June 30, 2017, included an increase in clinical and manufacturing costs of \$5.4 million related to BPX-501, primarily due to increased patient enrollment in our clinical trials. The increase in research and development expenses is also due to increased expenses of approximately \$0.8 million under collaboration agreements, (see Note 12 to the financial statements included in our Annual Report), and \$4.8 million for increased personnel, overhead charges and manufacturing facility start-up costs. Expenses related to BPX-601 were approximately \$0.8 million higher in the 2016 period, as we were performing pre-clinical, process development and regulatory work in preparation for beginning clinical trials.

The following table presents our research and development expense by project/category for the three and six months ended June 30, 2017 and 2016:

Product Candidates	Three Months Ended June 30,			Six Months Ended June 30,		
	2017	2016	Change	2017	2016	Change
	(in thousands)			(in thousands)		
BPX-501	\$ 9,754	\$ 7,297	\$ 2,457	\$ 17,746	\$ 12,355	\$ 5,391
BPX-601	596	1,310	(714)	1,117	1,899	(782)
BPX-701	871	68	803	1,158	280	878
General	6,738	3,356	3,382	13,233	8,355	4,878
Total	\$ 17,959	\$ 12,031	\$ 5,928	\$ 33,254	\$ 22,889	\$ 10,365

### *License Fees*

We incurred license fees of \$0.3 million and \$0.2 million in the three months periods ended June 30, 2017 and 2016, respectively, under the terms of our various license agreements for intellectual property. In the six month periods ended June 30, 2017 and 2016, license fees incurred were \$0.7 million and \$0.3 million, respectively. See "Contractual Obligations and Commitments" below and Note 12 to the audited financial statements in our Annual Report for additional information about our license agreements.

### *General and Administrative Expenses*

General and administrative, or G&A, expenses were \$5.5 million and \$11.4 million for the three and six months ended June 30, 2017, respectively, and \$4.2 million and \$8.5 million for the three and six months ended June 30, 2016, respectively. The increase in G&A expenses of \$1.3 million and \$3.0 million for the three and six months ended June 30, 2017, respectively, was primarily due to our overall growth, including an increase in personnel related costs, primarily due to hiring additional employees and severance costs, higher facility costs and increased legal, accounting and travel expenses. We believe our future general and administrative expenses will continue to increase as the Company continues to grow and expand its operations.

## **Liquidity and Capital Resources**

### *Sources of Liquidity*

We are a clinical stage biopharmaceutical company with a limited operating history. To date, we have financed our operations primarily through equity and debt financings and grants. We have not generated any revenue from the sale of any products. As of June 30, 2017 and December 31, 2016, we had cash, cash equivalents, restricted cash and investment securities of \$139.0 million and \$113.4 million, respectively. Cash in excess of immediate requirements is invested in accordance with our investment policy, primarily with a view to liquidity and capital preservation.

On June 28, 2017, the Company filed a registration statement on Form S-3 (File No. 333-219021) for the offer and sale by the Company of its securities in one or more offerings for up to an aggregate maximum offering price of \$150,000,000 (which includes \$81,000,000 of unsold securities that were previously registered under the Company's registration statement on Form S-3 (File No. 333-191819), which was filed on January 15, 2016 and declared effective on February 1, 2016). The SEC declared the registration statement effective on July 12, 2017.

On March 29, 2017, we completed an underwritten public offering of 5,750,000 shares of our common stock at a price of \$12.00 per share, for an aggregate offering size of \$69.0 million, pursuant to a registration statement on Form S-3 (File No. 333-209012) that was declared effective by the SEC on February 1, 2016. The net proceeds to us, after deducting underwriting discounts and commissions and offering expenses, was approximately \$64.6 million.

On March 10, 2016, we entered into a term loan arrangement with Hercules Capital, as agent and lender and borrowed \$15.0 million on the closing date. We borrowed an additional \$5.0 million on September 15, 2016 and the remaining \$10.0 million on March 8, 2017. We intend to use the proceeds to complete the build-out of our manufacturing facilities, and for general corporate purposes. As a result of the additional borrowing on March 8, 2017, the interest only period was extended for an additional six months through March 2018. Thereafter, we are required to repay the loan over the remaining term, through its final maturity date of March 1, 2020. We incurred issuance costs of \$0.2 million and facility charges of \$2.1 million, which are payable at the earlier of the repayment of the loan in full or the final maturity date. The \$2.3 million debt issuance costs are being recognized over the term of the loan as additional interest expense. We will pay interest on the loan at the greater of either (i) 9.35% plus the prime rate as reported in the Wall Street Journal minus 3.5% and (ii) 9.35%. The interest rate on the loan was 9.35% and 10.1% at June 30, 2016 and 2017, respectively. For additional information about the loan, see Note 8 to the unaudited consolidated condensed financial statements included herein.

## Cash Flows

The following table sets forth a summary of our cash flows for the six months ended June 30, 2017 and 2016:

	Six Months Ended June 30,		
	2017	2016	Change
	(in thousands)		
Net cash used in operating activities	\$ (42,623)	\$ (24,550)	\$ (18,073)
Net cash provided by (used in) investing activities	3,427	(11,409)	14,836
Net cash provided by financing activities	75,947	15,267	60,680
Net change in cash, cash equivalents, and restricted cash	<u>\$ 36,751</u>	<u>\$ (20,692)</u>	<u>\$ 57,443</u>

### Operating Activities

Net cash used in operating activities for the six months ended June 30, 2017 was comprised of a net loss of \$46.4 million, which included share-based compensation expense of \$6.6 million, and depreciation expense of \$1.6 million and amortization of deferred financing costs of \$0.4 million. Net cash used in operating activities also included an increase in prepaid expenses and other assets of \$1.2 million, a decrease in accounts payable and other liabilities of \$3.7 million, primarily due to completion of the first phase of construction of our manufacturing facility.

Net cash used in operating activities for the six months ended June 30, 2016 was comprised of a net loss of \$31.6 million, which included share-based compensation expense of \$6.2 million and depreciation expense of \$1.0 million and amortization of deferred financing costs of \$0.2 million. Net cash used in operating activities was also primarily comprised of the following primary components: a decrease in receivables of \$0.1 million, a decrease in prepaid expenses and other assets of \$0.3 million and a decrease in accounts payable and other liabilities of \$0.8 million.

### Investing Activities

Net cash provided by investing activities for the six months ended June 30, 2017 was \$3.4 million, consisting of the proceeds from sale of investment securities of \$39.0 million, offset by the purchase of investment securities of \$28.0 million and the purchase of property and equipment of \$7.6 million.

Net cash used in investing activities for the six months ended June 30, 2016 was \$11.4 million, consisting of the purchase of investment securities of \$22.7 million, offset by the proceeds from sale of investment securities of \$15.9 million and the purchase of property and equipment of \$4.6 million.

### Financing Activities

Net cash provided by financing activities for the six months ended June 30, 2017 was \$75.9 million, which was derived from \$64.6 million in net proceeds from our public offering in the first quarter, borrowings on long-term debt of \$10.0 million, proceeds from the exercise of stock options of \$1.3 million, proceeds from the issuance of stock under the employee stock purchase plan of \$0.2 million, reduced by the payment of debt issuance costs of \$0.1 million.

Net cash provided by financing activities for the six months ended June 30, 2016 was \$15.3 million, which was derived primarily from borrowings of long-term debt of \$15.0 million and proceeds from the issuance of stock under the employee stock purchase plan of \$0.2 million.

### Funding Requirements

Our primary uses of capital are, and we expect will continue to be, compensation and related expenses, third-party clinical research and development services, laboratory and related supplies, clinical costs, legal and other regulatory expenses, facility costs and general overhead costs. In addition, we expect to use capital to expand our manufacturing capabilities.

The successful development of any of our product candidates is highly uncertain. As such, at this time, we cannot reasonably estimate or know the nature, timing and costs of the efforts that will be necessary to complete the development of BPX-501 or our other current and future product candidates. We are also unable to predict when, if ever, material net cash inflows will commence from the sale of product candidates. This is due to the numerous risks and uncertainties associated with developing medical treatments, including, but not limited to, the uncertainty of:

- successful enrollment in, and successful completion of, clinical trials;
- receipt of marketing approvals from applicable regulatory authorities;
- making arrangements with third-party manufacturers;
- obtaining and maintaining patent and trade secret protection and regulatory exclusivity;
- launching commercial sales of our products, if and when approved, whether alone or in collaboration with others;
- market acceptance of our products, if and when approved; and
- successfully negotiating reimbursement for our products from various third-party payors;
- the ability to successfully manufacture patient doses

A change in the outcome of any of these variables with respect to the development of any of our product candidates would significantly change the costs and timing associated with the development of that product candidate.

Because all of our product candidates are in the early stages of clinical and preclinical development and the outcome of these efforts is uncertain, we cannot estimate the actual amounts necessary to successfully complete the development and commercialization of product candidates or whether, or when, we may achieve profitability. Until such time, if ever, that we can generate substantial product revenue, we expect to finance our cash needs through a combination of equity or debt financings and collaboration arrangements.

We plan to continue to fund our operations and capital funding needs through equity and/or debt financing. We may also consider new collaborations or selectively partnering our technology. To the extent that we raise additional capital through the sale of equity or convertible debt securities, the ownership interests of our stockholders will be diluted, and the terms may include liquidation or other preferences that adversely affect the rights of our existing stockholders. The incurrence of indebtedness would result in increased fixed payment obligations and could involve certain restrictive covenants, such as limitations on our ability to incur additional debt, limitations on our ability to acquire or license intellectual property rights and other operating restrictions that could adversely impact our ability to conduct our business. If we raise additional funds through strategic partnerships and alliances and licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies or product candidates, or grant licenses on terms unfavorable to us. Any of these actions could harm our business, results of operations and future prospects.

## Outlook

Based on our research and development plans and our timing expectations related to the progress of our programs, we expect that our cash and cash equivalents as of June 30, 2017 will enable us to fund our operating expenses and capital expenditure requirements through 2018. We have based this estimate on assumptions that may prove to be wrong, and we could utilize our available capital resources sooner than we currently expect. Furthermore, our operating plan may change, and we may need additional funds to meet operational needs and capital requirements for product development and commercialization sooner than planned. Because of the numerous risks and uncertainties associated with the development and commercialization of our product candidates and the extent to which we may enter into additional collaborations with third parties to participate in their development and commercialization, we are unable to estimate the amounts of increased capital outlays and operating expenditures associated with our current and anticipated clinical trials. Our future funding requirements will depend on many factors, as we:

- initiate or continue clinical trials of BPX-501, BPX-701 and BPX-601 and any other product candidates;
- continue the research and development of our product candidates; seek to discover additional product candidates; seek regulatory approvals for our product candidates if they successfully complete clinical trials;
- establish sales, marketing and distribution infrastructure and scale-up manufacturing capabilities to commercialize any product candidates that may receive regulatory approval;
- build out European operations to support our product development and commercialization plans for BPX-501 and potentially other product candidates; and
- enhance operational, financial and information management systems and hire additional personnel, including personnel to support development of our product candidates and, if a product candidate is approved, our commercialization efforts.

## Contractual Obligations and Commitments

Our contractual obligations as of June 30, 2017 were as follows:

	(in thousands)				
	Commitment	Less Than 1 Year	1 to 3 Years	3 to 5 Years	More Than 5 Years
License agreements (1)	\$ 67,147	\$ 793	\$ 8,279	\$ 16,564	\$ 41,511
Long-term debt obligations (2)	32,085	3,412	28,673	—	—
Operating lease agreements (3)	12,732	2,007	3,706	2,111	4,908
Manufacturing build-out obligation (4)	3,412	3,412	—	—	—
Research collaborations (5)	1,093	729	364	—	—
Manufacturing arrangements (6)	6,967	4,913	685	684	685
Sponsored research agreements (7)	2,624	1,369	1,255	—	—
Equipment capital lease agreements (8)	280	68	135	77	—
Total contractual obligations	<u>\$ 126,340</u>	<u>\$ 16,703</u>	<u>\$ 43,097</u>	<u>\$ 19,436</u>	<u>\$ 47,104</u>

(1) License agreements - We have entered into several license agreements under which we obtained rights to certain intellectual property. Under the agreements, we could be obligated for payments upon successful completion of clinical and regulatory milestones regarding the products covered by the licenses. The obligations listed in the table above represent estimates of when the milestones will be achieved. The milestones may not be completed when estimated or at all.

(2) Long-term debt obligations - Obligations under our debt facility. See Note 8 to the unaudited condensed consolidated financial statements included herein.

- (3) Operating lease agreements - The amounts above are comprised of one five-year lease agreement and one 11-year lease agreement. The first lease expires on January 31, 2020 and the second lease expires on August 31, 2026. See Note 12 to the financial statements included in our Annual Report.
- (4) Manufacturing build-out obligation - We entered into a construction contract to build-out our manufacturing facilities. The obligation listed in the table above represents the remaining agreed upon costs.
- (5) Research collaborations - We entered into a research collaboration with Ospedale Pediatrico Bambino Gesù (OPBG), a leading European pediatric research center and hospital, with commitments through 2018.
- (6) Manufacturing arrangements - We have entered into a number of manufacturing service arrangements with various terms. The obligations listed in the table above represent estimates of when certain services will be performed.
- (7) Sponsored research agreements - We have entered into three sponsored research agreements to undertake research which is of mutual interest to all parties. The commitments range from one to three years.
- (8) Equipment capital lease agreements - We have entered into several office equipment lease agreements with various terms. The commitments include equipment, maintenance and supplies. See Note 12 to the financial statements included in our Annual Report.

We have entered and will enter into other contracts in the normal course of business with third-party manufacturers, contract research organizations for clinical trials and other vendors for other services and products for operating purposes. These agreements generally provide for termination or cancellation, and, other than for costs already incurred, are not included in the table above.

#### **Recent Accounting Pronouncements**

See Note 3 to the Notes to Unaudited Condensed Consolidated Financial Statements in “Item 1 - Financial Statements” in this Quarterly Report for discussion regarding recent accounting pronouncements.

#### **Off-Balance Sheet Arrangements**

During the periods presented, we did not have, and we do not currently have, any off-balance sheet arrangements, as defined in the rules and regulations of the Securities and Exchange Commission.

#### **Item 3. Quantitative and Qualitative Disclosures about Market Risks**

The primary objective of our investment activities is to preserve our capital and meet our liquidity needs to fund operations. We also seek to generate competitive rates of return from our investments without assuming significant risk. To achieve our objectives, we maintain a portfolio of cash equivalents and investments in a variety of securities that are of high credit quality based on ratings from commonly relied upon rating agencies. As of June 30, 2017, we had cash, cash equivalents, restricted cash and investment securities of \$139.0 million. Our cash equivalents and investments in investment securities may be subject to interest rate risk and could fall in value if market interest rates increase. However, because our cash is invested in accounts with market interest rates and because our cash equivalents and investments in investment securities are traded in active markets, we believe that our exposure to interest rate risk is not significant and estimate that an immediate and uniform 10% increase in market interest rates from levels as of June 30, 2017 would not have a material impact on the total fair value of our portfolio.

We sometimes contract for the conduct of clinical trials or other research and development and manufacturing activities with contract research organizations, clinical trial sites and contract manufacturers in Europe, and in the future potentially elsewhere outside of the United States. We may be subject to exposure to fluctuations in foreign currency exchange rates in connection with these agreements. If the average exchange rate between the currency of our payment obligations under any of these agreements and the U.S. dollar were to strengthen or weaken by 10% against the corresponding exchange rate as of June 30, 2017, we estimate that the impact on our financial position, results of operations and cash flows would not be material. We do not hedge our foreign currency exposures.

We have not used derivative financial instruments for speculation or trading purposes.

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

### **Management's Evaluation of our Disclosure Controls and Procedures**

Our management, with the participation of our Chief Executive Officer and Chief Financial and Accounting Officer (our principal executive officer and principal financial officer, respectively), evaluated the effectiveness of our disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, as of June 30, 2017. The term "disclosure controls and procedures," as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company's management, including its principal executive and principal financial officers, as appropriate, to allow timely decisions regarding required disclosure.

Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on the evaluation of our disclosure controls and procedures as of June 30, 2017, our Chief Executive Officer and Chief Financial Officer concluded that, as of such date, our disclosure controls and procedures were effective.

### **Changes in Internal Control over Financial Reporting**

There were no changes in our internal control over financial reporting during our latest fiscal quarter 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**

None.

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

*Our business and results of operations are subject to a number of risks and uncertainties. You should carefully consider the risk factors described under the heading “Risk Factors” in our Annual Report and in other reports we file with the SEC. The occurrence of any of the risks described in our Annual Report or herein could harm our business, financial condition, results of operations and/or growth prospects or cause our actual results to differ materially from those contained in forward-looking statements we have made in this Quarterly Report and those we may make from time to time. You should consider all of the risk factors described in our Annual Report and our Quarterly Report on Form 10-Q, filed May 8, 2017, when evaluating our business. Other than risk factors included in Item 1A of our Quarterly Report on Form 10-Q filed on May 8, 2017, there have been no material changes to the risk factors included in Item 1A of our Annual Report.*

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

#### ***Recent Sales of Unregistered Securities***

None.

#### ***Use of Proceeds from Initial Public Offering of Common Stock***

On December 23, 2014, we completed the initial public offering of our common stock pursuant to a registration statement on Form S-1 (File Nos. 333-200328 and 333-201031), which was declared effective by the SEC on December 17, 2014. Since the effective date of our registration statement through June 30, 2017, we have used approximately \$149.0 million of the net offering proceeds to fund our operating activities, and the remainder is invested in cash and cash equivalent securities, or highly-liquid investment securities.

#### ***Purchase of Equity Securities***

We did not purchase any of our registered securities during the period covered by this Quarterly Report.

### **Item 5. Other Information**

(a)

On August 3, 2017, we entered into a letter agreement with Alan A. Musso, our Chief Financial Officer and Treasurer, pursuant to which we agreed to pay Mr. Musso a one-time lump sum cash bonus of \$192,500, less required withholdings. Mr. Musso’s eligibility to receive the cash bonus is conditioned upon Mr. Musso remaining in our continuous employment through April 30, 2018 and Mr. Musso not giving us notice prior to April 30, 2018 of his intent to resign from his employment with us, provided that Mr. Musso shall remain eligible to receive the bonus if we terminate his employment prior to April 30, 2018 for reasons other than for cause (as defined in his employment agreement dated December 4, 2014). The bonus is payable to Mr. Musso on the first regularly scheduled payroll date following the earlier of April 30, 2018 or, if terminated without cause, the effective date of the release signed by Mr. Musso as required by his employment agreement.

### **Item 6. Exhibits**

The exhibits filed as part of this Quarterly Report are set forth on the Exhibit Index, which is incorporated herein by reference.

## 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.

### **Bellicum Pharmaceuticals, Inc.**

Date: August 8, 2017

By: /s/ Richard A. Fair

Richard A. Fair

*President and Chief Executive Officer*

Date: August 8, 2017

By: /s/ Alan A. Musso

Alan A. Musso

*Chief Financial Officer and Treasurer*

*Principal Financial and Accounting Officer*

EXHIBIT INDEX

Exhibit number	Description of exhibit
3.1(1)	Amended and Restated Certificate of Incorporation of the Registrant.
3.2(1)	Amended and Restated Bylaws of the Registrant.
4.1	Reference is made to Exhibits 3.1 and 3.2.
4.2(2)	Form of Common Stock Certificate of the Registrant.
4.3(2)	Second Amended and Restated Investor Rights Agreement by and among the Registrant and certain of its stockholders, dated August 22, 2014.
4.4(3)	Registration Rights Agreement by and among the Registrant and Baker Brothers Life Sciences, LP, and two of its affiliated funds, dated January 15, 2016.
10.1	Separation and Consulting Agreement, by and between the registrant and Annemarie Moseley, Ph.D., M.D., effective May 10, 2017.
10.2	Amended and Restated Employment Agreement, by and between the registrant and Alan J. Smith, Ph.D., effective May 10, 2017.
31.1	Certification of Chief Executive Officer pursuant to Rule 13a-14(a) or Rule 15d-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of Chief Financial Officer pursuant to Rule 13a-14(a) or Rule 15d-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certifications of Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema Document
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	XBRL Taxonomy Extension Label Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document
(1)	Incorporated by reference to the Registrant's Current Report on Form 8-K, filed with the SEC on December 23, 2014.
(2)	Incorporated by reference to the Registrant's Registration Statement on Form S-1 (File No. 333-200328), as amended, originally filed with the SEC on November 18, 2014.
(3)	Incorporated by reference to the Registrant's Annual Report on Form 10-K, filed with the SEC on March 14, 2016.

May 10, 2017

Via Email and Hand Delivery

Annemarie Moseley, Ph.D., M.D.

Dear Annemarie:

This letter sets forth the substance of our agreement (the “**Agreement**”) regarding your separation from Bellicum Pharmaceuticals, Inc. (the “**Company**”). This Agreement will become effective only upon the Effective Date specified in Section 11 below.

**1. Separation.** You resign effective July 31, 2017 (the “**Separation Date**”) from any and all employment with the Company, and your status as an employee of the Company will end on that date. Provided that this Agreement becomes effective as specified in Section 11, that you provide the Company with the Closing Release attached hereto as Exhibit A and permit the Closing Release to become fully effective, and that you satisfy the requirements of Sections 2 and 3 hereof, the Company will provide you with the following benefits after the Separation Date: (i) continued payment of your base salary for twelve (12) months following the Separation Date, through July 31, 2018 (the “**Severance Period**”), beginning with the first regularly-scheduled payroll date following the Effective Date of the Closing Release; (ii) a lump sum amount equal to your pro-rated target performance bonus for 2017 payable within fifteen (15) business days of the Effective Date of the Closing Release; and (iii) payment of COBRA premiums, provided that you timely elect continued health insurance coverage pursuant to COBRA, through the earlier of the following: a) the duration of the Severance Period; b) the date upon which you become eligible for health insurance pursuant to another employer-sponsored group health insurance plan; or c) the date upon which you become ineligible for continued coverage under COBRA (collectively, the “**Separation Benefits**”).

**2. Transition Period.** From the date you execute this Agreement through the Separation Date (the “**Transition Period**”) you will continue to be employed by the Company on the following terms:

**a. Duties, Compensation and Benefits.** You will devote substantially all of your business time and best efforts to the performance of your duties hereunder during the Transition Period. The Company will continue to pay your regular base salary and you will continue to be eligible to participate in the employee benefit plans in which you are currently enrolled and/or participating (subject to the terms and conditions of those plans), and the Company will continue to reimburse all expenses (including commuting expenses) as provided in the Amended and Restated Employment Agreement dated April 1, 2015 between you and the Company (the “**Employment Agreement**”). You will cease serving in all current and previously held roles, including without limitation, Chief Operating Officer and Executive Vice President of Clinical Development, and global medical monitor on the date you execute this Agreement (the “**Execution Date**”) and will no longer be responsible for managing a team and shall instead provide services as an individual contributor. During the Transition Period, you agree to: **(i)** exercise the highest degree of care and professionalism; and **(ii)** fully utilize your expertise in performing the job duties described on Exhibit B.

**b. Situs and Support.** You will work off-site during the Transition Period. The Company will provide off-site meeting space as needed and will reimburse your business-related travel and other expenses pursuant to its standard policies and practices. Appropriate Company personnel (e.g., Martha French, Cassandra Harrison, Jessica Mosby, and Ghassan Ahmed) will be available to collaborate with you, as needed, to complete Transition Period projects.

**c. Reporting.** During the Transition Period, you will report to Alan Musso, the Company's Chief Financial Officer (the "**CFO**") and will apprise him regularly of progress on all transition projects.

**3. Consultancy.** The Company agrees to retain you as a consultant, and you agree to provide consulting services, under the terms specified below.

**a. Consulting Period.** The consulting relationship shall commence on the Separation Date and continue until the earlier of: (i) January 31, 2019; (ii) in the event you breach your Post-Employment Obligations (as defined in Section 2(d) below), the date of any such breach; or (iii) a date mutually agreed between you and the Company (the "**Consulting Period**").

**b. Consulting Services.** You agree to make yourself reasonably available to provide consulting services consistent with your expertise and experience through the end of the Consulting Period (the "**Consulting Services**"), and the Company will continue to pay your COBRA premiums in accordance with Section 1 hereof. It is expected that your time spent in providing Consulting Services will not exceed ten (10) hours per month. If the Company requests and you perform Consulting Services in excess of ten hours in one month, such Consulting Services shall be paid at the rate of \$425 per hour. The Company will use reasonable efforts to compile or aggregate information requests to one day per week; however, the Parties recognize that specific and discrete urgent questions or inquiries may arise and you agree to respond to such time-sensitive questions and inquiries within 24 hours. You agree to exercise the highest degree of professionalism and utilize your expertise and creative talents to the fullest in performing the Consulting Services. Your relationship with the Company during the Consulting Period will be that of an independent contractor, and nothing in this Agreement is intended to, or should be construed to, create a partnership, agency, joint venture or employment relationship after the Separation Date. During the Consulting Period, travel to destinations other than Houston will require mutual consent.

**c. Consulting Compensation.** You will be paid at the rate of \$425 per hour for your Consulting Services during the Consulting Period, in the amount of \$4,250 per month (the "**Consulting Fees**"). The Consulting Fees shall be payable in equal monthly installments on the first payroll date following each month and, because you will be providing the Consulting Services as an independent contractor, the Company will not withhold any amount for taxes, social security or other payroll deductions from the Consulting Fees. In addition, in exchange for your Consulting Services and promises in this Agreement, the Company will extend the Severance Period for purposes of your continued base salary payments under the Employment Agreement for an additional six (6) months, through January 31, 2019, paid over the Company's regular payroll schedule and subject to all applicable taxes as may be required to be withheld pursuant to any applicable law or regulation.

**d. Protection of Confidential and Proprietary Information, Non-Compete Period.** You acknowledge your obligations and promises to the Company under Sections 8 (Confidential Information), Section 9 (Non-Competition; Non-Solicitation; etc.), Section 10 (Injunction) and Section 11 (Inventions) of the Employment Agreement (the “**Post-Employment Obligations**”) and you agree that the Post-Employment Obligations shall continue to apply in full force and effect during the Consulting Period and thereafter; for the avoidance of doubt, the length of the Non-Compete Period (as defined in the Employment Agreement) extends through the Consulting Period and your continued receipt of the Consulting Fees and Separation Benefits during the Consulting Period is contingent on your compliance with the Post-Employment Obligations. Any and all work product you create in connection with the Consulting Services will be the sole and exclusive property of the Company. You hereby assign to the Company all right, title, and interest in all inventions, techniques, processes, materials, and other intellectual property developed in the course of performing the Consulting Services.

**e. Authority and Facilities Usage During Consulting Period.** After the Separation Date, you will have no authority, in the absence of the express written consent of the Board or the Company’s Chief Executive Officer (the “**CEO**”), to bind the Company (or to represent that you have authority to bind the Company) to any contractual obligations, whether written, oral or implied. You hereby agree that after the Separation Date, you will not represent or purport to represent the Company in any manner to any third party unless authorized to do so in writing by the Board, the CEO or the CFO. Access to and use of Company facilities or equipment to perform the Consulting Services will be coordinated through the Board, the CEO or the CFO.

**f. Breach of Obligations.** If you breach your Post-Employment Obligations or the nondisparagement obligations under this Agreement during the Consulting Period, the Company’s obligation to pay you Consulting Compensation and your severance under the Employment Agreement will cease immediately. Nothing in this Paragraph waives the Company’s right to pursue other action against you for any breach of your obligations under this Agreement or the Employment Agreement.

**4. Accrued Salary and Vacation.** On the Separation Date, the Company shall pay you all accrued salary, and all accrued and unused vacation, earned through the Separation Date, subject to standard payroll deductions and withholdings. You are entitled to these payments by law.

**5. Equity Awards.** The stock options to purchase Company common stock that you hold as of your Separation Date (the “**Options**”) and the restricted stock units to be issued to you in Company common stock that you hold as of your Separation Date (the “**RSUs**” and, collectively with the Options, the “**Equity Awards**”) will continue to vest during the Consulting Period. In addition, subject to stockholder approval of the increase in shares under the Company’s 2014 Equity Incentive Plan (the “**Plan**”) at the June 14, 2017 Annual Stockholders Meeting, you will be granted an option to purchase 42,000 shares of the Company’s Common Stock pursuant to the Plan and a standard stock option grant notice and award agreement between you and the Company, effective as of July 3, 2017. All terms, conditions, and limitations applicable to your Equity Awards will remain in full force and effect pursuant to the applicable Equity Award agreements between you and the Company, the applicable equity incentive plan documents, and any other documents applicable to the Equity Awards (the “**Equity Documents**”). Pursuant to the Equity Documents, you will be eligible to exercise any vested Options for up to a period of three (3)

months immediately following the conclusion of the Consulting Period and you will immediately forfeit any unvested RSUs upon conclusion of the Consulting Period. Pursuant to tax rules, any Options that you hold which are “incentive stock options” under Section 422 of the Internal Revenue Code of 1986, as amended, shall cease to qualify as “incentive stock options” on the date three (3) months following your Separation Date. You are advised by the Company to seek independent legal advice with respect to tax and securities law issues regarding your Options and any sale of Company stock you may make.

**6. Other Compensation or Benefits.** You acknowledge that, except as expressly provided in this Agreement, you will not receive any additional compensation, severance or benefits after the Separation Date. For the avoidance of doubt, you and the Company acknowledge that you have been paid your annual performance bonus for 2016, based on the extent to which the goals previously established for such bonus were achieved, as determined by the Board in its sole discretion. Because your relationship with the Company during the Consulting Period will be that of an independent contractor, other than the severance benefits set forth in this Agreement, you will not be entitled to any of the benefits that the Company may make available to its employees, including but not limited to, group health or life insurance, equity or option vesting, profit-sharing or retirement benefits, and you acknowledge and agree that your relationship with the Company during the Consulting Period will not be subject to the Fair Labor Standards Act or other laws or regulations governing employment relationships. The Company will maintain insurance coverage under the D&O and E&O insurance policies that it has in effect at any time before the end of the Consulting Period for Company employees and officers.

**7. Expense Reimbursement.** You agree that, no later than thirty (30) days following the Separation Date, you will submit your final documented employee expense reimbursement statement reflecting all business expenses you incurred through the Separation Date, if any, for which you seek reimbursement and the Company agrees to reimburse all reasonable and appropriate expenses. You will also be reimbursed for reasonable and appropriate expenses you incur in performing the Consulting Services, including your travel expenses if you consent to travel on Company business. All claims for reimbursement shall be submitted by documented business expense report upon Company-approved forms and shall include receipts. The Company will reimburse you for these expenses pursuant to its regular business practice.

**8. Return of Company Property.** You hereby represent that you will, not later than the Separation Date, perform a good faith search for, and return to the Company, all Company documents (and all copies thereof) and other Company property in your possession or control, including, but not limited to, Company files, correspondence, memoranda, notes, notebooks, drawings, books and records, plans, forecasts, reports, proposals, studies, agreements, financial information, personnel information, sales and marketing information, research and development information, systems information, specifications, computer-recorded information, tangible property and equipment, credit cards, entry cards, identification badges and keys; and any materials of any kind that contain or embody any proprietary or confidential information of the Company (and all reproductions thereof in whole or in part) (“*Company Property*”); provided, however, that the foregoing shall not apply to information and documentation you received solely in your capacity as a member of the Board, or as a stockholder, option holder or restricted stock unit holder of the Company, or as a participant in any employee benefit plan that the Company sponsors.

**9. Nondisparagement; Communication.** You agree not to disparage the Company or its officers, directors, employees, shareholders and agents to any third party in any manner likely to be harmful to its or their business, business reputation or personal reputation. The Company agrees that the Company's Directors and officers shall not, during the period they are employed by or serve the Company, disparage you either within or outside the Company in any manner likely to be harmful to your business or personal reputation. Notwithstanding the foregoing, both you and the Company may respond accurately and fully to any question, inquiry or request for information when required by legal process. The Company will provide you a reasonable opportunity to review in advance its formal announcement of this Agreement (both for distribution within the Company and for communication externally), and will endeavor in good faith to reach agreement with respect to your suggestions regarding the content of same.

**10. Release.** In exchange for the consideration provided to you by this Agreement that you are not otherwise entitled to receive, you hereby generally and completely release the Company and its directors, officers, employees, shareholders, members, partners, agents, attorneys, predecessors, successors, parent and subsidiary entities, insurers, affiliates, and assigns from any and all claims, liabilities and obligations, both known and unknown, that arise out of or are in any way related to events, acts, conduct, or omissions occurring prior to your signing this Agreement. This general release includes, but is not limited to: (1) all claims arising out of or in any way related to your employment with the Company or the termination of that employment; (2) all claims related to your compensation or benefits from the Company, including, but not limited to, salary, bonuses, commissions, vacation pay, expense reimbursements, severance pay, fringe benefits, stock, stock options, or any other ownership interests in the Company; (3) all claims for breach of contract, wrongful termination, and breach of the implied covenant of good faith and fair dealing; (4) all tort claims, including, but not limited to, claims for fraud, defamation, emotional distress, and discharge in violation of public policy; and (5) all federal, state, and local statutory claims, including, but not limited to, claims for discrimination, harassment, retaliation, attorneys' fees, or other claims arising under the federal Civil Rights Act of 1964 (as amended), and the federal Americans with Disabilities Act of 1990, the federal Age Discrimination in Employment Act of 1967 (as amended) ("**ADEA**"). The claims described above that you are releasing do not include: (1) any rights which cannot be waived as a matter of law; (2) any claims arising from breach of this Agreement; (3) any rights or claims for indemnification you may have pursuant to any written indemnification agreement with the Company to which you are a party, the Company's bylaws, or applicable law; (4) any rights or claims to benefits under Company benefit plans or programs to which you have a vested or non-forfeitable right at the time of your separation; (5) any rights or claims that you may have after separation pursuant to stock options or restricted stock units that have vested or been granted or issued prior to or at the time of your separation; or (6) any rights or claims to insurance coverage under insurance policies maintained by the Company for directors, executives, and/or officers. Nothing in this Agreement prevents you from filing a charge or complaint with the Equal Employment Opportunity Commission, the National Labor Relations Board, the Occupational Safety and Health Administration, the Securities and Exchange Commission or any other federal, state or local governmental agency or commission (collectively, the "**Government Agencies**"). You understand this Agreement does not limit your ability to communicate with any Government Agencies or otherwise participate in any investigation or proceeding that may be conducted by any Government Agency, including providing documents or other information, without notice to the Company. While this Agreement does not limit your right to receive an award for information provided to the Securities and Exchange Commission, you understand and agree that, to the maximum extent permitted by law,

you are otherwise waiving any and all rights you may have to individual relief based on any claims that you have released and any rights you have waived by signing this Agreement.

**11. ADEA Waiver.** You acknowledge that you are knowingly and voluntarily waiving and releasing any rights you may have under ADEA, and that the consideration given for the waiver and release in the preceding paragraph is in addition to anything of value to which you were already entitled. You further acknowledge that you have been advised by this writing that: (a) your waiver and release do not apply to any rights or claims that may arise after the execution date of this Agreement; (b) you should consult with an attorney prior to executing this Agreement; (c) you have twenty-one (21) days after the date of your receipt of this Agreement to consider this Agreement (although you may choose to voluntarily execute this Agreement earlier); (d) you have seven (7) days following the execution of this Agreement by the parties to revoke the Agreement; and (e) this Agreement will not be effective until the date upon which the revocation period has expired without your having revoked (the “**Effective Date**”), and you will not receive the benefits specified by this Agreement (other than continuation of your base salary and other current benefits during the Transition Period pursuant to the Company’s normal payroll and benefit practices) unless and until it becomes effective.

**12. Disputes.** Any dispute or controversy between you and the Company, arising out of or relating to this Agreement, the breach of this Agreement, your employment or consulting to the Company, or otherwise, shall be settled by binding arbitration conducted by and before a single arbitrator in Houston, Texas administered by the American Arbitration Association in accordance with its Employment Arbitration Rules (the “**AAA Rules**”) then in effect and judgment on the award rendered by the arbitrator may be entered in any court having jurisdiction thereof. Both you and the Company hereby waive the right to a trial by jury or judge, or by administrative proceeding, for any covered claim or dispute. To the extent the AAA Rules conflict with any provision or aspect of this Agreement, this Agreement shall control. The arbitrator shall have the authority to award any remedy or relief that a court of competent jurisdiction could order or grant, including, without limitation, the issuance of an injunction. However, either party may, without inconsistency with this arbitration provision, apply to any court having jurisdiction over such dispute or controversy and seek interim provisional, injunctive or other equitable relief until the arbitration award is rendered or the controversy is otherwise resolved. Except as necessary in court proceedings to enforce this arbitration provision or an award rendered hereunder, or to obtain interim relief, neither a party nor an arbitrator may disclose the existence, content or results of any arbitration hereunder without the prior written consent of the Company and you. All claims, disputes, or causes of action under this Agreement, whether by you or the Company, must be brought in an individual capacity, and shall not be brought as a plaintiff (or claimant) or class member in any purported class or representative proceeding, nor joined or consolidated with the claims of any other person or entity. The arbitrator may not consolidate the claims of more than one person or entity, and may not preside over any form of representative or class proceeding. This Agreement is made under the provisions of the Federal Arbitration Act (9 U.S.C., Sections 1-14) (“**FAA**”) and will be construed and governed accordingly. It is the parties’ intention that both the procedural and the substantive provisions of the FAA shall apply. **Questions of arbitrability (that is whether an issue is subject to arbitration under this agreement) shall be decided by the arbitrator.** Likewise, procedural questions which grow out of the dispute and bear on the final disposition are also matters for the arbitrator. However, where a party already has initiated a judicial proceeding, a court may decide procedural questions that grow out of the dispute and bear on the final disposition of the matter. Each party shall bear its or his costs and

expenses in any arbitration hereunder and one-half of the arbitrator's fees and costs; provided, however, that the arbitrator shall have the discretion to award the prevailing party reimbursement of its or his reasonable attorney's fees and costs, unless such award is prohibited by applicable law. Notwithstanding the foregoing, you and the Company shall each have the right to resolve any dispute or cause of action involving trade secrets, proprietary information, or intellectual property (including, without limitation, inventions assignment rights, and rights under patent, trademark, or copyright law) by court action instead of arbitration.

**13. Miscellaneous.** This Agreement, together with the continuing obligations under the Employment Agreement described herein, constitutes the complete, final and exclusive embodiment of the entire agreement between you and the Company with regard to this subject matter. It is entered into without reliance on any promise or representation, written or oral, other than those expressly contained herein, and it supersedes any other such promises, warranties or representations. This Agreement may not be modified or amended except in a writing signed by both you and an authorized member of the Board. This Agreement will bind the heirs, personal representatives, successors and assigns of both you and the Company, and inure to the benefit of both you and the Company, their heirs, successors and assigns. The failure to enforce any breach of this Agreement shall not be deemed to be a waiver of any other or subsequent breach. For purposes of construing this Agreement, any ambiguities shall not be construed against either party as the drafter. If any provision of this Agreement is determined to be invalid or unenforceable, in whole or in part, this determination will not affect any other provision of this Agreement and the provision in question will be modified so as to be rendered enforceable in a manner consistent with the intent of the parties insofar as possible. This Agreement will be deemed to have been entered into and will be construed and enforced in accordance with the laws of the State of Texas as applied to contracts made and to be performed entirely within Texas. This Agreement may be executed in counterparts or with facsimile signatures, which shall be deemed equivalent to originals.

If this Agreement is acceptable to you, please sign below and return one original to me.

Sincerely,

**Bellicum Pharmaceuticals, Inc.**

By: /s/ Richard A. Fair  
Richard A. Fair  
President & Chief Executive Officer

**Agreed and Accepted:**

/s/ Annemarie Moseley      May 9, 2017  
Dr. Annemarie Moseley                      Date

**EXHIBIT A**

**CLOSING RELEASE AND WAIVER OF CLAIMS**

**DO NOT SIGN PRIOR TO THE SEPARATION DATE**

**TO BE SIGNED AND RETURNED ON THE SEPARATION DATE OR WITHIN 21 DAYS THEREAFTER**

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8.

## CLOSING RELEASE AND WAIVER OF CLAIMS

### TO BE SIGNED ON OR FOLLOWING THE SEPARATION DATE

In consideration of the payments and other benefits set forth in the Confidential Transition & Separation Agreement (the “**Agreement**”), to which this form is attached, I, Dr. Annemarie Moseley, hereby furnish Bellicum Pharmaceuticals, Inc. (the “**Company**”), with the following release and waiver (“**Closing Release**”).

In exchange for the consideration provided to me by the Agreement that I am not otherwise entitled to receive, I hereby generally and completely release the Company and its directors, officers, employees, shareholders, partners, agents, attorneys, predecessors, successors, parent and subsidiary entities, insurers, Affiliates, and assigns from any and all claims, liabilities and obligations, both known and unknown, that arise out of or are in any way related to events, acts, conduct, or omissions occurring prior to my signing this Closing Release. This general release includes, but is not limited to: (1) all claims arising out of or in any way related to my employment with the Company or the termination of that employment; (2) all claims related to my compensation or benefits from the Company, including, but not limited to, salary, bonuses, commissions, vacation pay, expense reimbursements, severance pay, fringe benefits, stock, stock options, or any other ownership interests in the Company; (3) all claims for breach of contract, wrongful termination, and breach of the implied covenant of good faith and fair dealing; (4) all tort claims, including, but not limited to, claims for fraud, defamation, emotional distress, and discharge in violation of public policy; and (5) all federal, state, and local statutory claims, including, but not limited to, claims for discrimination, harassment, retaliation, attorneys’ fees, or other claims arising under the federal Civil Rights Act of 1964 (as amended), the federal Americans with Disabilities Act of 1990, and the federal Age Discrimination in Employment Act of 1967 (as amended) (“**ADEA**”). The claims described above that I am releasing do not include: (1) any rights which cannot be waived as a matter of law; or (2) any claims arising from breach of the Agreement. The claims described above that I am releasing do not include: (1) any rights which cannot be waived as a matter of law; (2) any claims arising from breach of the Agreement; (3) any rights or claims for indemnification I may have pursuant to any written indemnification agreement with the Company to which I am a party, the Company’s bylaws, or applicable law; (4) any rights or claims to benefits under Company benefit plans or programs to which I have a vested or non-forfeitable right at the time of my separation; (5) any rights or claims that I may have after separation pursuant to stock options or restricted stock units that have vested or been issued or granted prior to or at the time of my separation; or (6) any rights or claims to insurance coverage under insurance policies maintained by the Company for directors, executives, and/or officers. Nothing in the Agreement prevents me from filing a charge or complaint with the Equal Employment Opportunity Commission, the National Labor Relations Board, the Occupational Safety and Health Administration, the Securities and Exchange Commission or any other federal, state or local governmental agency or commission (collectively, the “**Government Agencies**”). I understand the Agreement does not limit my ability to communicate with any Government Agencies or otherwise participate in any investigation or proceeding that may be conducted by any Government Agency, including providing documents or other information, without notice to the Company. While the Agreement does not limit my right to receive an award for information provided to the Securities and Exchange Commission, I understand and agree that, to maximum extent permitted by law, I am otherwise waiving any and all rights I may have to individual relief

based on any claims that I have released and any rights I have waived by signing the Agreement and this Closing Release.

I acknowledge that, among other rights, I am waiving and releasing any rights I may have under ADEA, that this Closing Release is knowing and voluntary, and that the consideration given for this Closing Release is in addition to anything of value to which I was already entitled as an executive of the Company. If I am 40 years of age or older upon execution of this Closing Release, I further acknowledge that I have been advised, as required by the Older Workers Benefit Protection Act, that: (a) the release and waiver granted herein does not relate to claims under the ADEA which may arise after this Closing Release is executed; (b) I should consult with an attorney prior to executing this Closing Release; (c) I have had at least twenty-one (21) days in which to consider this Closing Release (although I may choose voluntarily to execute this Closing Release earlier); (d) I have seven (7) days following the execution of this Closing Release to revoke my consent to this Closing Release; and (e) this Closing Release shall not be effective until the eighth day after I execute this Closing Release and provided I have not earlier revoked (the "**Effective Date**").

I acknowledge my continuing obligations under Section 3.d. of the Agreement. I understand that among other things, I must not use or disclose any confidential or proprietary information of the Company and I must immediately return all Company property and documents (including all embodiments of proprietary information) and all copies thereof in my possession or control.

The Agreement and this Closing Release constitute the complete, final and exclusive embodiment of the entire agreement between the Company and me with regard to the subject matter hereof. I am not relying on any promise or representation by the Company that is not expressly stated herein. This Closing Release may only be modified by a writing signed by both me and a duly authorized officer of the Company.

Date: \_\_\_\_\_

By: \_\_\_\_\_  
**ANNEMARIE MOSELEY, PH.D., M.D.**

## EXHIBIT B

### TRANSITION PROJECTS

The transition projects and job duties described in Paragraph 2.a consist of the following:

1. Collaborate with lead authors on the drafting of presentations/posters for the EHA based on data available from the company database, and turn the drafts over to the Company to approve and finalize presentations/posters. The Company will have the responsibility for printing the presentations/posters and interfacing with investigators at meetings.
2. For the European Union – use best efforts to accomplish as much as feasible of the following tasks during the Transition Period:
  - (a) Assist Data Management in the finalization of MUD data collection database.
  - (b) Facilitate the negotiations with centers regarding budget and contract terms required so that data collection can begin.
  - (c) Facilitate the Ethics Committee submission with regulatory for prospective patients, which is also required so that data collections can begin.
3. For the United States – use best efforts toward the following goals:
  - (a) Finalization of the non-malignant protocol.
  - (b) Assisting Data Management and Regulatory in generating the SAP with a consultant statistician.
  - (c) Assisting Regulatory in preparing the submission to the FDA.
  - (d) Responding to questions that the Company receives before August 1, 2017.
  - (e) Finalizing the CPRIT protocol and obtaining investigator review and agreement.
  - (f) Finalizing the pediatric malignant protocol and obtaining investigator review and agreement.
  - (g) Assisting Regulatory in any submissions to the FDA for these Phase 2 trials.
4. Use best efforts to assist the Company’s medical monitor with transition of investigator relationships through July 31, 2017.

## BELLICUM PHARMACEUTICALS, INC.

## AMENDED AND RESTATED EMPLOYMENT AGREEMENT

This AMENDED AND RESTATED EMPLOYMENT AGREEMENT (“**Agreement**”) is entered into as of May 10, 2017 (the “**Effective Date**”) by and between Bellicum Pharmaceuticals, Inc. a Delaware corporation (the “**Company**”), having an office at 2130 West Holcombe Boulevard, Suite 800, Houston, Texas 77030 (the “**Company Premises**”) and Alan K. Smith, Ph.D. (the “**Executive**”).

RECITALS

**WHEREAS**, Executive and the Company are currently parties to an Employment Agreement dated October 5, 2015 (the “**Prior Agreement**”) which is superseded and replaced in its entirety by this Agreement as of the Effective Date;

**WHEREAS**, the Company desires to continue to employ Executive to provide personal services to the Company in as set forth in this Agreement and wishes to provide Executive with certain compensation and benefits in return for such services, and Executive wishes to be so employed and to receive such benefits;

**WHEREAS**, Executive’s agreement to and compliance with the provisions in Sections 9 through 11 of this Agreement are a material factor, material inducement and material condition to the Company’s entering into this Agreement. Moreover, Executive acknowledges that a substantial portion of the value of the employment of Executive is Executive’s promises to refrain from competing with the Company as identified in Sections 9 through 11 of this Agreement; and

**WHEREAS**, the Company and Executive wish to enter into this Agreement to define their mutual rights and duties with respect to Executive’s compensation and benefits from and following the Effective Date.

**NOW, THEREFORE**, in consideration of the mutual promises and covenants contained herein, and for other good and valuable consideration, the Parties, intending to be legally bound, agree as follows:

1. **At-Will Employment.** The Company and Executive acknowledge that either party has the right to terminate Executive’s employment with the Company at any time for any reason whatsoever, with or without cause, subject to the provisions of Section 7 and 8 herein. This at-will employment relationship cannot be changed except in a writing signed by both Executive and the Board of Directors of the Company (or a duly authorized committee thereof, if applicable) (the “**Board**”). Any rights of Executive to additional payments or other benefits from the Company upon any such termination of employment shall be governed by Section 8 of this Agreement.
2. **Position.** Executive shall serve as the Executive Vice President, Technical Operations of the Company, with the responsibilities, rights, authority and duties pertaining to such office as are established from time to time by the Chief Executive Officer of the Company, and Executive shall report to the Chief Executive Officer of the Company. Executive shall also act as an officer and/or director and/or manager of such Affiliates of the Company as may be designated by the Chief

Executive Officer of the Company from time to time, commensurate with Executive's office, all without further compensation, other than as provided in this Agreement. As used herein, "**Affiliate**" means any entity that directly or indirectly controls, is controlled by, or is under common control with, the Company.

3. **Commitment.** Executive will devote substantially all of his business time and best efforts to the performance of his duties hereunder; provided, however, that Executive shall be allowed, to the extent that such activities do not interfere with the performance of his duties and responsibilities hereunder and do not conflict with the financial, fiduciary or other interests of the Company (or its Affiliates), as determined in the sole discretion of the Chief Executive Officer of the Company, to manage his passive personal investments and to serve on corporate, civic, charitable and industry boards or committees. Notwithstanding the foregoing, Executive agrees that he shall only serve on for-profit boards of directors or for-profit advisory committees if such service is approved in advance in the sole discretion of the Chief Executive Officer of the Company.

#### 4. **Compensation.**

(a) **Base Salary.** During Executive's employment with the Company, the Company shall pay Executive a base salary at the annual rate of three hundred seventy thousand dollars (\$370,000.00), less payroll deductions and withholdings, which shall be payable in accordance with the standard payroll practices of the Company. Executive's base salary shall be subject to periodic review and adjustment by the Board from time to time in the discretion of the Board.

(b) **Annual Performance Bonus.** For each calendar year, (including calendar year 2017), Executive shall be eligible to receive an annual performance bonus ("**Annual Performance Bonus**") from the Company, with the target amount of such bonus equal to forty percent (40%) of Executive's annual base salary. The Annual Performance Bonus will be based on achievement of individual and/or Company goals which are established by the Board in its sole discretion at the beginning of each calendar year. Following the close of each calendar year, the Board will determine whether Executive has earned an Annual Performance Bonus, and the amount of any such bonus. Payment of the Annual Performance Bonus shall be expressly conditioned upon Executive's employment with the Company on the date that the Annual Performance Bonus is paid, except as provided in Section 8(b) and Section 8(c) below. The Annual Performance Bonus shall be paid within ninety (90) days after the end of the calendar year for which it relates. Executive's target Annual Performance Bonus will be subject to periodic review and adjustment by the Board from time to time.

(c) **Equity Awards.** Executive will be eligible to participate in and receive stock option or equity award grants under the Company's equity incentive plans from time to time in the discretion of the Board, and in accordance with the terms and conditions of such plans. As soon as practicable following the Effective Date, Executive will be granted a stock option to purchase 20,000 shares of the Company's common in connection with his promotion to Executive Vice President, Technical Operations, effective as of its date of approval by the Company's Board of Directors or Compensation Committee (the "**Option**"). The Option will be granted under, and subject to all the terms and conditions of the Company's 2014 Equity Incentive Plan or any successor Company equity incentive plan (the "**Plan**") and its standard form of stock option grant

notice and agreement. The Option will have an exercise price per share equal to the Fair Market Value (as defined in the Plan) of the Company's common stock on the applicable date of grant. The Option will vest as follows, subject to Executive's Continuous Services (as defined in the Plan) with the Company through each applicable vesting date: 25% of the shares of Common stock subject to the Option will vest on the one-year anniversary of the grant date and the remaining shares will vest in thirty-six (36) equal monthly installments thereafter.

(d) Reimbursement of Business Expenses. The Company shall reimburse Executive for reasonable travel and other business expenses incurred by Executive in the performance of his duties hereunder, in accordance with the Company's policies as in effect from time to time.

(e) Reimbursement of Commuting Expenses. The Company shall reimburse Executive's reasonable travel costs from Virginia to Houston and reasonable accommodation costs in Houston related to the Executive's work for the Company on a monthly basis, to the extent such costs do not exceed \$4,000 in any calendar month (the "**Commuting Expenses**"). To obtain reimbursement for any Commuting Expenses, Executive must submit expense reports to the Company within forty-five (45) days after the expense is incurred. Any such reimbursements will be paid to Executive within thirty (30) days after the date Executive timely submits receipts to the Company for the Commuting Expenses and are subject to any applicable tax reporting and withholding.

5. **Benefits**. Subject to applicable eligibility requirements, Executive shall be entitled to participate in all benefit plans and arrangements and fringe benefits and programs that may be provided to senior executives of the Company from time to time, subject to plan terms and generally applicable Company policies. Executive is entitled to participate in personal time off and holiday benefits, with personal time off to be not less than twenty-seven (27) days on an annual basis, accruing at nine (9) hours per twice monthly pay period. Ten (10) days of personal time off may be carried over to the next year. This paid time off allowance is subject to the Company's policies with respect to accrual of, including limitations on the maximum permitted accrual of, paid time off and is subject to change in accordance with changes in Company policy.

6. **Relocation**. Executive shall not be required to relocate to the Houston, Texas metropolitan area at this time. However, should the Executive be required to relocate to Houston at a later date, Executive's continued employment at the Company through the time of relocation and the conditions in Section 6(e) below, the Company will provide Executive with the following payments and reimbursements ("**Relocation Benefits**") to facilitate a smooth relocation for Executive and his family.

(a) **Household Goods**. Reimbursement for reasonable moving costs for transportation of Executive's household goods, including one car, subject to Executive providing to Company three quotes for such services and Company approval of a quote for such services.

(b) **House finding trip**. Reimbursement for reasonable costs for economy airfare, car rental, hotel and reasonable meals to search for a new home.

(c) **Temporary Housing/Car Rental.** Reimbursement for reasonable costs of temporary housing for Executive and his spouse and a rental car while in temporary housing, for a maximum of sixty days.

(d) **Tax Impacts.** It is recognized by the parties that certain relocation expenses listed above may not be tax deductible. In order to offset income tax consequences for Executive, the Company will pay to Executive an amount equal to 30% of the Relocation Benefits set forth in Section 6(a) through (c) that are non-deductible for federal income tax purposes. Such amount shall be paid in cash to Executive pursuant to the terms of Section 6(e) below.

(e) **Conditions.** To obtain reimbursement for any expense incurred under this Section 6, Executive must submit expense reports to the Company within forty-five (45) days after the expense is incurred. Any such relocation reimbursements will be paid to Executive within thirty (30) days after the date Executive timely submits receipts for the expenses and are subject to any applicable tax reporting and withholding. If Executive's employment with Company is terminated by Executive other than for Good Reason or if the Company terminates Executive's employment for Cause, in either case within 24 months after the Effective Date, the Company will have no further obligations to reimburse Executive for any as yet unreimbursed expenses, and Executive must reimburse the Company in an amount equal to (i) the total of the amounts previously paid by the Company for relocation expenses, as reduced by (ii) 1/24<sup>th</sup> of such total amount for each full month of employment Executive has served since the Effective Date. Executive hereby agrees that any such repayment obligation will be recovered from Executive's final paycheck and any other amounts owed to Executive by the Company from and after Executive's termination date. Any additional amounts that may be owed by Executive for such repayment obligation will be paid by Executive to Company in cash within 60 days of the termination date.

## 7. Termination.

(a) **Termination.** The employment of Executive under this Agreement shall terminate upon the earliest to occur of any of the following events:

(i) the death of Executive;

(ii) the termination of Executive's employment by the Company due to Executive's Disability pursuant to Section 7(b) hereof;

(iii) the termination of Executive's employment by Executive other than for Good Reason (as hereinafter defined);

(iv) the termination of Executive's employment by the Company without Cause;

(v) the termination of Executive's employment by the Company for Cause pursuant to Section 7(c) after providing the Notice of Termination for Cause pursuant to Section 7(d);

(vi) the termination by Executive of Executive's employment for Good Reason (as hereinafter defined) pursuant to Section 7(e); or

(vii) the termination of Executive's employment upon mutual agreement in writing between the Company and Executive.

(b) Disability. For purposes of this Agreement, "**Disability**" means that Executive has been unable, for ninety (90) consecutive days, or for periods aggregating one hundred and twenty (120) business days in any period of twelve consecutive months, to perform Executive's duties under this Agreement, as a result of physical or mental impairment, illness or injury, as determined in good faith by the Board. A termination of Executive's employment for Disability shall be communicated to Executive by written notice, and shall be effective on the 10<sup>th</sup> day after sending such notice to Executive (the "**Disability Effective Date**"), unless Executive returns to performance of Executive's duties before the Disability Effective Date.

(c) Cause. For purposes of this Agreement, the term "**Cause**" shall mean (i) Executive's willful misconduct which is demonstrably and materially injurious to the Company's reputation, financial condition, or business relationships; (ii) the failure of Executive to attempt in good faith to follow the legal written direction of the Board; (iii) the failure by Executive to attempt in good faith to perform the duties required of him hereunder (other than any such failure resulting from incapacity due to physical or mental illness) after a written demand for substantial performance is delivered to Executive by the Board which specifically identifies the manner in which it is believed that Executive has failed to attempt to perform his duties hereunder; (iv) Executive being convicted of, indicted for, or pleading guilty or nolo contendere to, a felony or any crime involving dishonesty, fraud or moral turpitude; (v) Executive's dishonesty with regard to the Company or in the performance of his duties hereunder, which in either case has a material adverse effect on the Company; (vi) Executive's material breach of this Agreement unless corrected by Executive within ten (10) days of the Company's written notification to Executive of such breach; or, (vii) Executive's failure to comply in any material respect with the Company's policies and/or procedures, unless corrected by Executive within ten (10) days of the Company's written notification to Executive of such breach.

(d) Notice of Termination for Cause. Notice of Termination for Cause shall mean a notice to Executive that shall indicate the specific termination provision in Section 7(c) relied upon and shall set forth in reasonable detail the facts and circumstances which provide a basis for Termination for Cause.

(e) Termination by Executive for Good Reason. Executive may terminate Executive's employment with the Company by resigning from employment with the Company for Good Reason. The term "**Good Reason**" shall mean the occurrence, without Executive's prior written consent, of any one or more of the following: (i) a material reduction in Executive's base salary (unless pursuant to a salary reduction program applicable generally to the Company's similarly situated senior executives); (ii) a material reduction in Executive's authority, duties or responsibilities; (iii) a relocation of Executive's principal place of employment with the Company (or its successor, if applicable) to a place that increases Executive's one-way commute by more than fifty (50) miles as compared to Executive's then-current principal place of employment immediately prior to such relocation (unless to the Houston, Texas metropolitan area, as contemplated by Section 6), except for required travel by Executive on the Company's business to an extent substantially consistent with Executive's business travel obligations prior to the such

relocation; or (iv) any other action of inaction that constitutes a material breach by the Company (or its successor, if applicable) of any material provision of this Agreement.

No resignation for Good Reason shall be effective unless (1) Executive provides written notice, within ninety (90) days after the first occurrence of the event giving rise to Good Reason, to the Chairman of the Board setting forth in reasonable detail the material facts constituting Good Reason and the reasonable steps Executive believes necessary to cure, (2) the Company has had thirty (30) business days from the date of such notice to cure any such occurrence otherwise constituting Good Reason, and (3) if such event is not reasonably cured within such period, Executive must resign from all positions Executive then holds with the Company (including any position as a member of the Board) effective not later than ninety (90) days after the expiration of the cure period.

## 8. Consequences of Termination of Employment.

(a) **General.** If Executive's employment is terminated for any reason or no reason, the Company shall pay to Executive or to Executive's legal representatives, if applicable: (i) any base salary earned, but unpaid; and, (ii) any unreimbursed business expenses payable pursuant to Section 4 hereof, (iii) any unreimbursed Relocation Benefits or Commuting Expenses which are eligible for reimbursement, and any accrued but unused personal time off benefits and any other payments or benefits required by applicable law (collectively "**Accrued Amounts**"), which amounts shall be promptly paid in a lump sum to Executive, or in the case of Executive's death to Executive's estate. Other than the Accrued Amounts, Executive or Executive's legal representatives shall not be entitled to any additional compensation or benefits if Executive's employment is terminated for any reason other than by reason of Executive's Involuntary Termination (as defined in Section 8(b) below). If Executive's employment terminates due to an Involuntary Termination, Executive will be eligible to receive the additional compensation and benefits described in Section 8(b) and 8(c), as applicable.

(b) **Involuntary Termination.** If Executive's employment with the Company is terminated by the Company without Cause (and other than as a result of Executive's death or Disability) or if Executive terminates employment for Good Reason, and provided in any case such termination constitutes a "separation from service", as defined under Treasury Regulation Section 1.409A-1(h)) (a "**Separation from Service**") (such termination described in (i) or (ii), an "**Involuntary Termination**"), in addition to the Accrued Amounts, Executive shall be entitled to receive the severance benefits described below in this Section 8(b), subject in all events to Executive's compliance with Section 8(d) below:

(i) Executive shall receive continued payment of Executive's Base Salary (as defined below) for the first twelve (12) months after the date of such termination (the "**Severance Period**"), paid over the Company's regular payroll schedule.

(ii) Executive shall receive a lump sum amount equal to Executive's target Annual Performance Bonus for the year of termination, pro rated based on the ratio that the number of days from the beginning of the calendar year in which such termination occurs through the date of termination bears to 365 (the "**Bonus Payment**").

(iii) If Executive is eligible for and timely elects to continue the health insurance coverage under the Company's group health plans under the Consolidated Omnibus Budget Reconciliation Act of 1985 or the state equivalent ("COBRA") following Executive's termination date, the Company will pay the COBRA group health insurance premiums for Executive and Executive's eligible dependents until the earliest of (A) the close of the Severance Period, (B) the expiration of Executive's eligibility for the continuation coverage under COBRA, or (C) the date when Executive becomes eligible for substantially equivalent health insurance coverage in connection with new employment or self-employment. For purposes of this Section, references to COBRA premiums shall not include any amounts payable by Executive under a Section 125 health care reimbursement plan under the Internal Revenue Code of 1986, as amended and the treasury regulations thereunder (the "Code"). Notwithstanding the foregoing, if at any time the Company determines, in its sole discretion, that it cannot pay the COBRA premiums without potentially incurring financial costs or penalties under applicable law (including, without limitation, Section 2716 of the Public Health Service Act), then regardless of whether Executive elects continued health coverage under COBRA, and in lieu of providing the COBRA premiums, the Company will instead pay Executive on the last day of each remaining month of the Severance Period, a fully taxable cash payment equal to the COBRA premiums for that month, subject to applicable tax withholdings (such amount, the "**Health Care Benefit Payment**"). The Health Care Benefit Payment shall be paid in monthly installments on the same schedule that the COBRA premiums would otherwise have been paid and shall be equal to the amount that the Company would have otherwise paid for COBRA premiums, and shall be paid until the earlier of (i) expiration of the Severance Period or (ii) the date Executive voluntarily enrolls in a health insurance plan offered by another employer or entity.

(c) Involuntary Termination in Connection with a Change in Control. In the event that Executive's Involuntary Termination occurs immediately prior to, on or within the twelve (12) months following the consummation of a Change in Control (as defined below) and subject in all events to Executive's compliance with Section 8(d) below, then Executive shall be entitled to the benefits provided above in Section 8(b), except that:

(i) the Bonus Payment shall equal Executive's full target Annual Performance Bonus for the year of termination, rather than the pro-rated target bonus; and

(ii) the vesting of all of Executive's outstanding stock options and other equity awards that are subject to time-based vesting requirements shall accelerate in full such that all such equity awards shall be deemed fully vested as of the date of Executive's Involuntary Termination.

For the avoidance of doubt, in no event shall Executive be entitled to benefits under both Section 8(b) and this Section 8(c). If Executive is eligible for benefits under both Section 8(b) and this Section 8(c), Executive shall receive the benefits set forth in this Section 8(c) and such benefits will be reduced by any benefits previously provided to Executive under Section 8(b).

(d) Conditions and Timing for Severance Benefits. The severance benefits set forth in Section 8(b) and Section 8(c) above are expressly conditioned upon: (i) Executive continuing to comply with Executive's obligations under this Agreement, including Sections 9 through 12; and (ii) Executive signing and not revoking a general release of legal claims in a form provided by the Company (the "**Release**") within the applicable deadline set forth therein and permitting the

Release to become effective in accordance with its terms, which must occur no later than the Release Deadline (as defined in Section 15 below). The salary continuation payments described in Sections 8(b) will be paid in substantially equal installments on the Company's regular payroll schedule and subject to standard deductions and withholdings over the Severance Period following termination; *provided, however*, that no payments will be made prior to the effectiveness of the Release. On the effective date of the Release, the Company will pay Executive the salary continuation payments that Executive would have received on or prior to such date in a lump sum under the original schedule but for the delay while waiting for the effectiveness of the Release, with the balance of the payments being paid as originally scheduled. Bonus Payments described in Section 8(b) and 8(c) will be paid in a lump sum cash payment on the first regular payroll date of the Company following the effective date of the Release, but in no event later than March 15 of the year following the year in which Executive's termination of employment occurred. All severance benefits described in this Section 8 will be subject to all applicable standard required deductions and withholdings.

(e) Definitions.

(i) **"Base Salary"** means Executive's annual base salary in effect immediately prior to Executive's termination, excluding any reduction which forms the basis for Executive's right to resign for Good Reason.

(ii) **"Change in Control"** means a "Change in Control" as defined in the Company's 2014 Equity Incentive Plan.

9. **Confidential Information.** **"Confidential Information"** as used in this Agreement, includes but is not limited to, specialized training received by Executive; products already developed or that will be developed by the Company, including but not limited to, products in the field of cancer immunotherapy, including metastatic castrate resistant prostate cancer and graft versus host disease; research and development materials related to the manipulation of dendritic cell signaling pathways to enhance the immune response; research and development materials, electronic databases; computer programs and technologies; marketing and/or scientific studies and analysis; product and pricing knowledge; manufacturing methods; supplier lists and information; any and all information concerning past, present and future customers, referral sources or vendors; contracts and licenses; management structure, company ownership, personnel information (including the performance, skills, abilities and payment of employees); purchasing, accounting and business systems; short and long range business planning; data regarding the Company's past, current and future financial performance, sales performance, and current and/or future plans to increase the Company's market share by targeting specific medical issues, demographic and/or geographic markets; standard operating procedures; financial information; trade secrets, copyrights, derivative works, patents, inventions, know-how, and other intellectual property; business policies; submissions to government or regulatory agencies and related information; methods of operation; implementation strategies; promotional information and techniques; marketing presentations; price lists; files or other information; pricing strategies; computer files; samples; customer originals; or any other confidential information concerning the business and affairs of the Company. The Company's Confidential Information is also comprised of the personal information received from third parties and/or confidential and proprietary information regarding research, products, or clinical trials received from third parties, but only if such

confidential information is reduced to writing and marked “Confidential” by the third party. All such confidential information obtained by Executive, whether in writing, any other tangible form of expression or disclosed orally or through visual means or otherwise, and regardless of whether such information bears a confidential or proprietary legend, will be presumed to be Confidential Information. Executive acknowledges that the Confidential Information is vital, valuable, sensitive, confidential and proprietary to Company and provides Company with a competitive advantage. Executive further acknowledges that Company’s Confidential Information is dynamic, and constantly changes in nature and/or quantity, given that Company continues to refine its Confidential Information. The obligations specified in this Section 9 shall not apply, and Executive shall have no further obligations under this Agreement with respect to any Confidential Information that: a) is available to the public at the time of disclosure to Executive or becomes publicly known through no breach of the undertakings hereunder by Executive or to the knowledge of Executive, any third party; b) becomes known to Executive through disclosure by sources other than the Company and its Affiliates and in the course of Executive’s service to the Company, said sources being under no obligation of confidentiality to the Company with respect to such Confidential Information; c) is approved by the Company for release; or d) has been independently developed by Executive without benefit of the Confidential Information and on Executive’s own time and without use of Company resources. Executive understands and agrees that the Company may require him, as a condition to continued employment, to execute and abide by the terms of a standard proprietary information and inventions agreement with the Company which will further set forth the terms of, and prohibit the unauthorized use or disclosure of, the Company’s confidential and proprietary information (the “PIIA”) and that such PIIA shall become part of this Agreement and Executive’s obligations under this Agreement.

#### 10. **Non-Competition; Non-Solicitation, Etc.**

##### (a) Company Promises.

(i) This Agreement is entered into pursuant to Executive’s agreement to these non-compete and non-solicitation provisions. Executive’s agreement to the provisions in Sections 10 through 12 is a material condition of the Company’s entering into this Agreement and continued employment of Executive.

(ii) The Company agrees to provide Executive with access to Confidential Information and in a greater quantity and/or expanded nature than any such Confidential Information that may have already been provided to Executive and with additional opportunities to broaden the Company’s services and develop the Company’s customers in a manner not previously available to Executive including, but not limited to, information regarding the Company’s products and business plan; research results; information supporting patent applications; and Company standard operating procedures related to the Company’s research and development efforts.

(iii) The Company promises that during Executive’s employment with the Company, the Company will provide Executive with the opportunity to develop goodwill and establish rapport with the customer contacts in a greater quantity and/or expanded nature than any such opportunities that may have already been provided to Executive.

(iv) The Company promises that Executive will continue to receive and have access to Confidential Information throughout Executive's employment with the Company.

(b) Executive's Promises. In exchange for the Company's promises listed above and all other consideration provided pursuant to this Agreement, to which these promises are ancillary, Executive promises as follows:

(i) Executive will not, during or after Executive's employment with the Company, use, copy, remove, disclose or disseminate to any person or entity, the Company's Confidential Information, except (i) as required in the course of performing Executive's duties with the Company, for the benefit of the Company, or (ii) when required to do so by a court of law, by any governmental agency having supervisory authority over the business of the Company or by any administrative or legislative body (including a committee thereof) with apparent jurisdiction to order Executive to divulge, disclose or make accessible such information, it being understood that Executive will promptly notify the Company of such requirement so that the Company may seek to obtain a protective order.

(ii) Following employment termination, Executive will immediately return to the Company all materials created, received or utilized in any way in conjunction with Executive's work performed with the Company that in any way incorporates, reflects or constitutes Company's Confidential Information.

(iii) Executive acknowledges that the market for the Company's products, services, and activities is global, and that the products, services and/or activities can be provided anywhere in the world. Executive recognizes that the Company draws its customers and/or clients from around the world because it will seek to file patents and run clinical trials in countries around the world, and sell its product to consumers around the world and/or pharmaceutical companies located around the world. Moreover, Executive recognizes that the Company's customers may be contacted by telephone, in person, or in writing (including e-mail via the Internet). Executive further acknowledges that due to the international scope of the Company's customer and client base, the following non-solicitation/non-competition restriction is necessary.

(iv) Executive agrees and acknowledges that Company will not be provided access to Confidential Information, as defined in Section 9, from or belonging to a third party that Executive was exposed to or received from said third party prior to the execution date of this Agreement and that is the subject of any confidentiality requirement of any kind between Executive and said third party. **EXECUTIVE ALSO AGREES TO INDEMNIFY, REIMBURSE, AND HOLD HARMLESS THE COMPANY FOR ALL ATTORNEY FEES, EXPENSES, COSTS, HARM, OR RELATED COSTS TO COMPANY ARISING FROM OR AS A RESULT OF ANY ACTUAL CAUSE OF ACTION OR CLAIM BROUGHT AGAINST COMPANY OR EXECUTIVE RELATED TO ANY ACTUAL BREACH OF THIS SECTION BY EXECUTIVE.** Company agrees that: (A) Executive shall be allowed to participate fully in the defense of any such action against Company and in any settlement negotiations, and (B) any payment to Company by Executive under this Section shall be only after any settlement has been consummated or judicial action has become final and non-appealable.

(c) Non-Compete. Ancillary to the consideration reflected within this Agreement, the Company and Executive agree to the following non-competition provisions. Executive agrees that during Executive’s employment with the Company and for a period of twelve (12) months following the termination of his employment (“**Non-Compete Period**”):

(i) Executive shall not, directly or indirectly, engage in or participate (including, without limitation, as an investor, officer, employee, director, agent, or consultant (any such capacity, being a “**Participant**”)) in or on behalf of any entity engaging in the “**Company’s Business**”, said Company’s Business being defined as: (A) genetically modified cell products for the treatment of cancer; and (B) other genetically modified products for which the Company has an active development program at the termination or expiration of the Employment Term (the “**Non-Compete Obligations**”), provided, however, that nothing herein shall prevent him from investing as a less than 5% shareholder in securities of any company listed on a national securities exchange or quoted on an automated quotation system;

(ii) Geographic Limitation. The geographic limitation for the Non-Compete Obligations is North America, Europe and Japan; and

(iii) During Executive’s employment with the Company and for a period of twelve (12) months after Executive’s employment has ended, Employee will not directly or indirectly become employed or otherwise associated with any of the following entities, which are direct competitors of the Company, in any geographic region:

Adaptimmune Limited	91 Park Drive Milton Park, Abingdon Oxon OX14 4RY UK
bluebird bio, Inc.	150 2nd Street Cambridge, MA 02141
Celgene Corporation	86 Morris Avenue Summit, NJ 07901
Cellectis	8 rue de la Croix Jarry 75013 Paris France
Cell Medica Limited	1 Canal Side Studios, 8-14 St Pancras Way London, NW1 0QG UK
Immune Design Corp.	1616 Eastlake Ave. E., Suite 310 Seattle, WA 98102
Intrexon Corporation	1872 Pratt Drive Blacksburg, VA 24060
Juno Therapeutics, Inc.	307 Westlake Avenue North Suite 300 Seattle, WA 98109

Kiadis Pharma B.V.	Entrada 231-234 1096 EG Amsterdam The Netherlands
Kite Pharma, Inc.	2225 Colorado Avenue Santa Monica, CA 90404
Lion Biotechnologies, Inc.	21900 Burbank Blvd., Third Floor Woodland Hills, CA 91367
Medigene AG	Lochhamer Str. 11 82152 Planegg/Martinsried Germany
MolMed S.p.A.	Via Olgettina, 58 20132 Milan Italy
Novartis AG	Basel Switzerland
Pfizer Inc.	235 East 42nd Street New York, NY 10017
Precision Biosciences, Inc.	302 East Pettigrew St. Suite A-100 Durham, NC 27701
Unum Therapeutics	One Broadway 4th Floor Cambridge, MA 02142

Executive and the Company agree that with respect to the foregoing entities such names are the common names of such entities. Executive and the Company agree that the restrictions contained in this Agreement are binding whether or not Executive and the Company have used the correct legal name, address, affiliated entity, or new owner of such entity, however, if said new owner of such entity has other divisions that are not involved in carrying out the work of the acquired listed entity, then Executive may be employed or otherwise associated with these other divisions.

(iv) Executive agrees that Executive's work for any third party engaged in the Company's Business during the Non-Compete Period inevitably would lead to Executive's unauthorized use of Company's Confidential Information, even if such use is unintentional. Because it would be impossible, as a practical matter, to monitor, restrain, or police Executive's use of such Confidential Information other than by Executive's not working for such third party, and because the Company's Business is highly specialized, the competitors are identifiable, the market for the Company's product, services, and activities is global, and the Company's customers are located throughout the world, Executive agrees that restricting such employment as set forth in this Agreement is the narrowest way to protect Company's legitimate business interests, and the narrowest way of enforcing Executive's consideration for the receipt of Company's consideration (namely, Executive's promise not to use or disclose Confidential Information).

(d) Nonsolicitation of Employees. Executive agrees that during the Non-Compete Period, Executive will not, directly or indirectly, (i) induce or solicit any person who was an employee, consultant or independent contractor of the Company or any of its Affiliates, to terminate such individual's employment or service with the Company or any of its Affiliates or (ii) assist any other person or entity in such activities.

(e) Extension of Non-Solicitation/Non-Competition and Non-Recruitment Periods. If Executive is found by a court of competent jurisdiction to have breached any promise made in Section 10 of this Agreement, the periods specified in Section 10(c) of this Agreement shall be extended by one month for every month in which Executive was in breach so that the Company has the full benefit of the time period Section 10(c).

11. **Injunction**. Executive recognizes that Executive's services hereunder are of a special, unique, unusual, extraordinary and intellectual character giving them a peculiar value, the loss of which cannot be reasonably or adequately compensated for in damages. Executive acknowledges that if Executive were to leave the employ of the Company for any reason and compete, directly or indirectly, with the Company, or solicit the Company's employees, or use or disclose, directly or indirectly, the Company's Confidential Information (whether in tangible form or memorized), that such competition, solicitation, use and/or disclosure would cause the Company irreparable harm and injury for which no adequate remedy at law exists. Executive agrees this Agreement is the narrowest way to protect the Company's interests. Therefore, in the event of the breach or threatened breach of the provisions of this Agreement by Executive, the Company shall be entitled to obtain injunctive relief to enjoin such breach or threatened breach, in addition to all other remedies and alternatives that may be available at law or in equity. Executive acknowledges that the remedies contained in this Agreement for violation of this Agreement are not the exclusive remedies that the Company may pursue.

12. **Inventions**.

(a) Inventions Retained and Licensed. Executive has attached hereto as Exhibit A, a list describing all inventions, original works of authorship, derivative works, developments, improvements and trade secrets that (i) were made by Executive prior to his employment with the Company, (ii) belong to Executive, (iii) relate to the Company's proposed business, products or research and development and (iv) are not assigned to the Company hereunder (collectively, "**Prior Inventions**"); or, if no such list is attached, Executive represents that there are no such Prior Inventions. Executive agrees that Executive will not incorporate, or permit to be incorporated, any Prior Invention owned by Executive or in which Executive has an interest into a Company product, process or service without the Company's prior written consent. Nevertheless, if, in the course of Executive's employment with the Company, Executive incorporates into a Company product, process or service a Prior Invention owned by Executive or in which Executive has an interest, Executive hereby grants to the Company a nonexclusive, royalty-free, fully paid-up, irrevocable, perpetual, transferable, sublicensable, worldwide license to reproduce, make derivative works of, distribute, perform, display, import, make, have made, modify, use, sell, offer to sell, and exploit in any other way such Prior Invention as part of or in connection with such product, process or service, and to practice any method related thereto.

(b) Assignment of Inventions. Executive agrees that Executive will promptly make full written disclosure to the Company, will hold in trust for the sole right and benefit of the Company, and hereby assign to the Company, or its designee, all Executive's right, title, and interest in and to any and all inventions, original works of authorship, derivative works, developments, concepts, modifications, improvements (including improvements to Confidential Information), designs, discoveries, ideas, know-how, trademarks, trade dress, trade secrets or other intellectual property, whether or not patentable or registrable under copyright or similar laws,

which Executive may solely or jointly conceive or develop or reduce to practice, or cause to be conceived or developed or reduced to practice, whether or not reduced to drawings, written descriptions, documentation or other tangible form, as applicable, during the period of time Executive is employed by the Company (collectively, “**Inventions**”), except as provided in Section 12(f) below. Executive further acknowledges that all original works of authorship which are made by Executive (solely or jointly with others) within the scope of and during the period of Executive’s employment with the Company and which are protectable by copyright are “works made for hire” as that term is defined in the United States Copyright Act. Executive understands and agrees that the decision whether or not to commercialize or market any Invention is within the Company’s sole discretion and for the Company’s sole benefit and that no royalty will be due to Executive as a result of the Company’s efforts to commercialize or market any such Invention,

(c) Inventions Assigned to the United States. Executive agrees to assign to the United States government all Executive’s right, title, and interest in and to any and all Inventions whenever such full title is required to be in the United States by a contract between the Company and the United States or any of its agencies.

(d) Maintenance of Records. Executive agrees to keep and maintain adequate and current written records of all Inventions during the term of Executive’s employment with the Company. The records will be in the form of notes, sketches, drawings and any other format that may be specified by the Board. The records will be available to and remain the Company’s sole property at all times.

(e) Patent and Copyright Registrations. Executive agrees to assist the Company, or its designee, at the Company’s expense, in every proper way to secure the Company’s rights in any Inventions and any copyrights, patents, mask work rights or other intellectual property rights relating thereto in any and all countries, including, but not limited to, the disclosure to the Company of all pertinent information and data with respect thereto, the execution of all applications, specifications, oaths, declarations, assignments and all other instruments that the Company deems necessary in order to apply for and obtain such rights and in order to assign and convey to the Company, its successors, assigns, and nominees the sole and exclusive rights, title and interest in and to such Inventions, and any copyrights, patents, mask work rights or other intellectual property rights relating thereto. Executive further agrees that Executive’s obligations to execute or cause to be executed, when it is in Executive’s power to do so, any such instrument or papers shall continue after the termination of this Agreement. If the Company is unable because of Executive’s mental or physical incapacity or for any other reason to secure Executive’s signature to apply for or to pursue any application for any United States or foreign patents or copyright registrations covering any Inventions or original works of authorship assigned to the Company as above, then Executive hereby irrevocably designates and appoints the Company and its duly authorized officers and agents as Executive’s agent and attorney in fact, to act for and in Executive’s behalf and stead to execute and file any such applications and to do all other lawfully permitted acts to further the prosecution and issuance of letters patent or copyright registrations thereon with the same legal force and effect as if executed by Executive.

(f) Exception to Assignments. Executive understands that the provisions of this Agreement requiring assignment of Inventions to the Company does not apply to any Invention that Executive has developed entirely on Executive’s own time without using the Company’s

equipment, supplies, facilities, trade secret information or Confidential Information (an “**Other Invention**”), except for those Other Inventions that either (i) relate in any way at the time of conception or reduction to practice of such Other Invention to the Company’s Business or (ii) result from any work that Executive performed for the Company. Executive will advise the Company promptly in writing, under a confidentiality agreement, of any Invention that Executive believes constitutes an Other Invention and is not otherwise disclosed on Exhibit A. Executive agrees that Executive will not incorporate, or permit to be incorporated, any Other Invention owned by Executive or in which Executive has an interest into a Company product, process or service without the Company’s prior written consent. Notwithstanding the foregoing sentence, if, in the course of Executive’s employment with the Company, Executive incorporates into a Company product, process or service an Other Invention owned by Executive or in which Executive has an interest, Executive hereby grants to the Company a nonexclusive, royalty-free, fully paid-up, irrevocable, perpetual, transferable, sublicensable, worldwide license to reproduce, make derivative works of, distribute, perform, display, import, make, have made, modify, use, sell, offer to sell, and exploit in any other way such Other Invention as part of or in connection with such product, process or service, and to practice any method related thereto.

13. **Disputes.** Any dispute or controversy between the Company and Executive, arising out of or relating to this Agreement, the breach of this Agreement, the Company’s employment of Executive, or otherwise, shall be settled by binding arbitration conducted by and before a single arbitrator in Houston, Texas administered by the American Arbitration Association in accordance with its Employment Arbitration Rules (the “AAA Rules”) then in effect and judgment on the award rendered by the arbitrator may be entered in any court having jurisdiction thereof. Both Employee and the Company hereby waive the right to a trial by jury or judge, or by administrative proceeding, for any covered claim or dispute. To the extent the AAA Rules conflict with any provision or aspect of this Agreement, this Agreement shall control. The arbitrator shall have the authority to award any remedy or relief that a court of competent jurisdiction could order or grant, including, without limitation, the issuance of an injunction. However, either party may, without inconsistency with this arbitration provision, apply to any court having jurisdiction over such dispute or controversy and seek interim provisional, injunctive or other equitable relief until the arbitration award is rendered or the controversy is otherwise resolved. Except as necessary in court proceedings to enforce this arbitration provision or an award rendered hereunder, or to obtain interim relief, neither a party nor an arbitrator may disclose the existence, content or results of any arbitration hereunder without the prior written consent of the Company and Executive. All claims, disputes, or causes of action under this Agreement, whether by Employee or the Company, must be brought in an individual capacity, and shall not be brought as a plaintiff (or claimant) or class member in any purported class or representative proceeding, nor joined or consolidated with the claims of any other person or entity. The arbitrator may not consolidate the claims of more than one person or entity, and may not preside over any form of representative or class proceeding. This Agreement is made under the provisions of the Federal Arbitration Act (9 U.S.C., Sections 1-14) (“FAA”) and will be construed and governed accordingly. It is the parties’ intention that both the procedural and the substantive provisions of the FAA shall apply. **Questions of arbitrability (that is whether an issue is subject to arbitration under this agreement) shall be decided by the arbitrator.** Likewise, procedural questions which grow out of the dispute and bear on the final disposition are also matters for the arbitrator. However, where a party already has initiated a judicial proceeding, a court may decide procedural questions that grow out of the dispute and bear on the final disposition of the matter. Each party shall bear its or his costs and

expenses in any arbitration hereunder and one-half of the arbitrator's fees and costs; provided, however, that the arbitrator shall have the discretion to award the prevailing party reimbursement of its or his reasonable attorney's fees and costs, unless such award is prohibited by applicable law. Notwithstanding the foregoing, Executive and the Company shall each have the right to resolve any dispute or cause of action involving trade secrets, proprietary information, or intellectual property (including, without limitation, inventions assignment rights, and rights under patent, trademark, or copyright law) by court action instead of arbitration.

14. **Notices.** All notices given under this Agreement shall be in writing and shall be deemed to have been duly given (a) when delivered personally, (b) three business days after being mailed by first class certified mail, return receipt requested, postage prepaid, (c) one business day after being sent by a reputable overnight delivery service, postage or delivery charges prepaid, or (d) on the date on which a facsimile is transmitted to the parties at their respective addresses stated below. Any party may change its address for notice and the address to which copies must be sent by giving notice of the new addresses to the other party in accordance with this Section 14, except that any such change of address notice shall not be effective unless and until received.

If to the Company:

2130 West Holcombe Boulevard, Suite 800  
Houston, Texas 77030  
Attention: Chairman of the Board of Directors

with a copy (which shall not constitute notice) to:

Cooley LLP  
4401 Eastgate Mall  
San Diego, California 92121  
Attention: Julie Robinson

If to Executive, to Executive's address on file with the Company

15. **Tax Provisions.**

(a) Section 409A. Notwithstanding anything in this Agreement to the contrary, the following provisions apply to the extent severance benefits provided herein are subject to the provisions of Section 409A of the Code and the regulations and other guidance thereunder and any state law of similar effect (collectively "**Section 409A**"). Severance benefits shall not commence until Executive's Separation from Service. Each installment of severance benefits is a separate "payment" for purposes of Treasury Regulations Section 1.409A-2(b)(2)(i), and the severance benefits are intended to satisfy the exemptions from application of Section 409A provided under Treasury Regulations Sections 1.409A-1(b)(4), 1.409A-1(b)(5) and 1.409A-1(b)(9). However, if such exemptions are not available and Executive is, upon Separation from Service, a "specified employee" for purposes of Section 409A, then, solely to the extent necessary to avoid adverse personal tax consequences under Section 409A, the timing of the severance benefits payments shall be delayed until the earlier of (i) six (6) months and one day after Executive's Separation from Service, or (ii) Executive' death. Executive shall receive severance benefits only if Executive executes and returns to the Company the Release within the applicable time period set forth therein

and permits such Release to become effective in accordance with its terms, which date may not be later than sixty (60) days following the date of Executive's Separation from Service (such latest permitted date, the "**Release Deadline**"). If the severance benefits are not covered by one or more exemptions from the application of Section 409A and the Release could become effective in the calendar year following the calendar year in which Executive's Separation from Service occurs, the Release will not be deemed effective any earlier than the Release Deadline. None of the severance benefits will be paid or otherwise delivered prior to the effective date of the Release. Except to the minimum extent that payments must be delayed because Executive is a "specified employee" or until the effectiveness of the Release, all amounts will be paid as soon as practicable in accordance with the schedule provided herein and in accordance with the Company's normal payroll practices. The severance benefits are intended to qualify for an exemption from application of Section 409A or comply with its requirements to the extent necessary to avoid adverse personal tax consequences under Section 409A, and any ambiguities herein shall be interpreted accordingly.

(b) Section 280G. If any payment or benefit Executive will or may receive from the Company or otherwise (a "**280G Payment**") would (i) constitute a "parachute payment" within the meaning of Section 280G of the Code, and (ii) but for this sentence, be subject to the excise tax imposed by Section 4999 of the Code (the "**Excise Tax**"), then any such 280G Payment pursuant to this Agreement or otherwise (a "**Payment**") shall be equal to the Reduced Amount. The "**Reduced Amount**" shall be either (x) the largest portion of the Payment that would result in no portion of the Payment (after reduction) being subject to the Excise Tax or (y) the largest portion, up to and including the total, of the Payment, whichever amount (i.e., the amount determined by clause (x) or by clause (y)), after taking into account all applicable federal, state and local employment taxes, income taxes, and the Excise Tax (all computed at the highest applicable marginal rate), results in Executive's receipt, on an after-tax basis, of the greater economic benefit notwithstanding that all or some portion of the Payment may be subject to the Excise Tax. If a reduction in a Payment is required pursuant to the preceding sentence and the Reduced Amount is determined pursuant to clause (x) of the preceding sentence, the reduction shall occur in the manner (the "**Reduction Method**") that results in the greatest economic benefit for Executive. If more than one method of reduction will result in the same economic benefit, the items so reduced will be reduced pro rata (the "**Pro Rata Reduction Method**").

Notwithstanding the foregoing, if the Reduction Method or the Pro Rata Reduction Method would result in any portion of the Payment being subject to taxes pursuant to Section 409A that would not otherwise be subject to taxes pursuant to Section 409A, then the Reduction Method and/or the Pro Rata Reduction Method, as the case may be, shall be modified so as to avoid the imposition of taxes pursuant to Section 409A as follows: (A) as a first priority, the modification shall preserve to the greatest extent possible, the greatest economic benefit for Executive as determined on an after-tax basis; (B) as a second priority, Payments that are contingent on future events (e.g., being terminated without cause), shall be reduced (or eliminated) before Payments that are not contingent on future events; and (C) as a third priority, Payments that are "deferred compensation" within the meaning of Section 409A shall be reduced (or eliminated) before Payments that are not deferred compensation within the meaning of Section 409A.

Unless Executive and the Company agree on an alternative accounting firm, the accounting firm engaged by the Company for general tax compliance purposes as of the day prior to the effective date of the change of control transaction triggering the Payment shall perform the foregoing

calculations. If the accounting firm so engaged by the Company is serving as accountant or auditor for the individual, entity or group effecting the change in control transaction, the Company shall appoint a nationally recognized accounting firm to make the determinations required hereunder. The Company shall bear all expenses with respect to the determinations by such accounting firm required to be made hereunder. The Company shall use commercially reasonable efforts to cause the accounting firm engaged to make the determinations hereunder to provide its calculations, together with detailed supporting documentation, to Executive and the Company within fifteen (15) calendar days after the date on which Executive's right to a 280G Payment becomes reasonably likely to occur (if requested at that time by Executive or the Company) or such other time as requested by Executive or the Company.

If Executive receives a Payment for which the Reduced Amount was determined pursuant to clause (x) of the first paragraph of this Section 15(b) and the Internal Revenue Service determines thereafter that some portion of the Payment is subject to the Excise Tax, Executive shall promptly return to the Company a sufficient amount of the Payment (after reduction pursuant to clause (x) of the first paragraph of this Section 15(b) so that no portion of the remaining Payment is subject to the Excise Tax. For the avoidance of doubt, if the Reduced Amount was determined pursuant to clause (y) in the first paragraph of this Section 15(b), Executive shall have no obligation to return any portion of the Payment pursuant to the preceding sentence.

#### 16. **Miscellaneous.**

(a) Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of Texas without reference to principles of conflict of laws.

(b) Entire Agreement/Amendments. This Agreement and the instruments contemplated herein contain the entire understanding of the parties with respect to the employment of Executive by the Company from and after the Effective Date and supersede any prior agreements or promises between the Company and Executive, except for any outstanding stock option or other equity award agreement previously entered into between Executive and the Company, including but not limited to the Prior Agreement. There are no restrictions, agreements, promises, warranties, covenants or undertakings between the parties with respect to the subject matter herein other than those expressly set forth herein and therein. This Agreement may not be altered, modified, or amended except by written instrument signed by the parties hereto.

(c) No Waiver. The failure of a party to insist upon strict adherence to any term of this Agreement on any occasion shall not be considered a waiver of such party's rights or deprive such party of the right thereafter to insist upon strict adherence to that term or any other term of this Agreement. Any such waiver must be in writing and signed by Executive or an authorized officer of the Company, as the case may be.

(d) Assignment. This Agreement shall be binding upon and inure to the benefit of the Company and Executive and their respective successors, assigns, executors and administrators. This Agreement shall not be assignable by Executive.

(e) Representation. Executive represents that Executive's employment by the Company and the performance by Executive of his obligations under this Agreement do not, and

shall not, breach any agreement, including, but not limited to, any agreement that obligates him to keep in confidence any trade secrets or confidential or proprietary information of his or of any other party, to write or consult to any other party or to refrain from competing, directly or indirectly, with the business of any other party. Executive shall not disclose to the Company or use any trade secrets or confidential or proprietary information of any other party.

(f) Successors; Binding Agreement; Third Party Beneficiaries. This Agreement shall inure to the benefit of and be binding upon the personal or legal representatives, executors, administrators, successors, heirs, distributees, devisees legatees and permitted assignees of the parties hereto.

(g) Withholding Taxes. The Company shall withhold from any and all compensation, severance and other amounts payable under this Agreement such Federal, state, local or other taxes as may be required to be withheld pursuant to any applicable law or regulation.

(h) Survivorship. The respective rights and obligations of the parties hereunder, including without limitation Sections 9 through 12 hereof, shall survive any termination of Executive's employment to the extent necessary to the agreed preservation of such rights and obligations.

(i) Counterparts. This Agreement may be signed in counterparts, each of which shall be an original, with the same effect as if the signatures thereto and hereto were upon the same instrument.

(j) Headings. The headings of the sections contained in this Agreement are for convenience only and shall not be deemed to control or affect the meaning or construction of any provision of this Agreement.

*Signature Page Follows*

IN WITNESS WHEREOF, the parties hereto have duly executed this Agreement as of the day and year first above written.

By: Bellicum Pharmaceuticals, Inc.

By: /s/ Richard A. Fair

Name: Richard A. Fair

Title: President and Chief Executive Officer

/s/ Alan K. Smith

Name: Alan K. Smith, Ph.D.

Signature Page to Agreement

**EXHIBIT A**  
**INVENTIONS**

None.

Exhibit A

**CERTIFICATION PURSUANT TO  
RULE 13a-14(a) and 15d-14(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED, AS ADOPTED PURSUANT TO  
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Richard A. Fair, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Bellicum Pharmaceuticals, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - 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;
  - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 8, 2017

By: /s/ Richard A. Fair

Richard A. Fair

President and Chief Executive Officer

**CERTIFICATION PURSUANT TO  
RULE 13a-14(a) and 15d-14(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED, AS ADOPTED PURSUANT TO  
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Alan A. Musso, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Bellicum Pharmaceuticals, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - 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;
  - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 8, 2017

By: /s/ Alan A. Musso

Alan A. Musso

Chief Financial Officer and Treasurer

(Principal Financial and Accounting Officer)

**CERTIFICATIONS 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 for the quarter ended June 30, 2017 (the "Report") of Bellicum Pharmaceuticals, Inc. (the "Registrant"), as filed with the Securities and Exchange Commission on the date hereof, the undersigned, in their capacities as officers of the Registrant, do each hereby certify, that, to the best of such officer's knowledge:

- (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 Registrant.

/s/ Richard A. Fair

Richard A. Fair

President and Chief Executive Officer

(Principal Executive Officer)

August 8, 2017

/s/ Alan A. Musso

Alan A. Musso

Chief Financial Officer and Treasurer

(Principal Financial and Accounting Officer)

August 8, 2017

This certification accompanies the Report to which it relates, is not deemed filed with the Securities and Exchange Commission and is not to be incorporated by reference into any filing of the Registrant under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended (whether made before or after the date of the Form 10-Q), irrespective of any general incorporation language contained in such filing.