UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

FORM 10-Q

(Mark One)

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

For the quarterly period ended September 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: 001-37718

Spring Bank Pharmaceuticals, Inc.

(Exact Name of Registrant as Specified in its Charter)

Delaware	**52-2386345**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**
86 South Street Hopkinton, MA	**01748**
(Address of principal executive offices)	**(Zip Code)**

Registrant's telephone number, including area code: (508) 473-5993

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 (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, 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.

Large accelerated filer	☐	Accelerated filer	☐
Non-accelerated filer	☐ (Do not check if a smaller reporting company)	Smaller reporting company	☒
		Emerging growth 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 7(a)(2)(B) of the Securities 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 October 31, 2017, the registrant had 12,951,033 shares of common stock, $0.0001 par value per share, outstanding.

Spring Bank Pharmaceuticals, Inc.

INDEX

FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q contains forward-looking statements that involve substantial risks and uncertainties. All statements, other than statements of historical facts, contained in this Quarterly Report on Form 10-Q, including statements regarding our strategy, future operations, future financial position, projected costs, prospects, plans and objectives of management, are forward-looking statements. In some cases, you can identify forward-looking statements by terms such as "may," "will," "should," "design," "expect," "seek," "plan," "anticipate," "could," "intend," "target," "project," "contemplate," "believe," "estimate," "predict," "potential" or "continue" or the negative of these terms or other similar expressions.

These forward-looking statements include, but are not limited to, statements about:

- our ongoing and planned preclinical studies and clinical trials;
- preclinical study data and clinical trial data and the timing of results of our ongoing clinical studies and/or trials;
- the timing of and our ability to obtain and maintain regulatory approvals for our product candidates;
- our plans to seek and enter into clinical trial collaborations and other broader collaborations;
- our commercialization, marketing and manufacturing capabilities and strategy; and
- our estimates regarding prospects, strategies, expenses, operating capital requirements, results of operations and needs for additional financing.

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 we make. Factors that could cause actual results or events to differ materially from the forward-looking statements that we make include, but are not limited to, the following:

- Our business currently depends substantially on the success of clinical trials for inarigivir soproxil (formerly known as SB 9200), which we refer to as inarigivir, which is still under development. If we are unable to obtain regulatory approval for, or successfully commercialize, inarigivir, our business will be materially harmed.
- We are very early in our development efforts and our product candidates may not be successful in later stage clinical trials. Results obtained in our preclinical studies and clinical trials are not necessarily indicative of results to be obtained in future clinical trials. As a result, our product candidates may never be approved as marketable therapeutics.
- We will need additional funding to complete the development of our product candidates and before we can expect to become profitable from the sales of our products, if approved. If we are unable to raise capital when needed, we could be forced to delay, reduce or eliminate our product development programs or commercialization efforts.
- We rely, and expect to continue to rely, on third parties to conduct our clinical trials and to manufacture our product candidates for preclinical and clinical testing. These third parties may not perform satisfactorily, which could delay our product development activities.
- If we are unable to adequately protect our proprietary technology, or obtain and maintain issued patents which are sufficient to protect our product candidates, others could compete against us more directly, which would have a material adverse impact on our business, results of operations, financial condition and prospects.
- We may not be able to retain key executives or to attract, retain and motivate key personnel. If we are unable to retain such key personnel, it could have a material adverse impact on our business and prospects.

You should read this Quarterly Report on Form 10-Q and the documents that we have filed as exhibits to this Quarterly Report on Form 10-Q completely and with the understanding that our actual future results may be materially different from what we expect. You should also read carefully the factors described in the section "Risk Factors" of this Quarterly Report on Form 10-Q and "Item 1A. Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2016 to better understand the risks and uncertainties inherent in our business and underlying any forward-looking statements. You are advised, however, to consult any further disclosures we make on related subjects in our subsequent Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, press releases, and our website. Any forward-looking statements that we make in this Quarterly Report on Form 10-Q speak only as of the date of this Quarterly Report on Form 10-Q, and we undertake no obligation to update such statements to reflect events or circumstances after the date of this Quarterly Report on Form 10-Q or to reflect the occurrence of unanticipated events.

PART I—FINANCIAL INFORMATION

Item 1. Financial Statements.

SPRING BANK PHARMACEUTICALS, INC.

CONSOLIDATED BALANCE SHEETS
(In Thousands, Except Share and Per Share Data)

	September 30, 2017	December 31, 2016
ASSETS	(unaudited)	
Current assets:		
Cash and cash equivalents	$ 17,539	$ 10,684
Marketable securities	34,640	14,046
Prepaid expenses and other current assets	850	840
Total current assets	53,029	25,570
Marketable securities, long-term	—	752
Property and equipment, net	534	522
Restricted cash	250	—
Other assets	35	35
Total	$ 53,848	$ 26,879
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 1,773	$ 1,519
Accrued expenses and other current liabilities	2,312	1,982
Total current liabilities	4,085	3,501
Warrant liabilities	17,807	6,333
Other long-term liabilities	32	27
Total liabilities	21,924	9,861
Commitments and contingencies (Note 8)		
Stockholders' equity:		
Preferred stock, $0.0001 par value—authorized, 10,000,000 shares at September 30, 2017 and December 31, 2016; no shares issued or outstanding at September 30, 2017 and December 31, 2016	—	—
Common stock, $0.0001 par value—authorized, 200,000,000 shares at September 30, 2017 and December 31, 2016; 12,697,038 and 9,416,238 shares issued and outstanding at September 30, 2017 and December 31, 2016, respectively	1	1
Additional paid-in capital	109,682	68,559
Accumulated deficit	(77,752)	(51,535)
Other comprehensive loss	(7)	(7)
Total stockholders' equity	31,924	17,018
Total	$ 53,848	$ 26,879

See accompanying notes to consolidated financial statements.

SPRING BANK PHARMACEUTICALS, INC.

CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS
(Unaudited)
(In Thousands, Except Share and Per Share Data)

	For the Three Months Ended September 30,		For the Nine Months Ended September 30,	
	2017	2016	2017	2016
Grant revenue	$ —	$ —	$ —	$ 352
Operating expenses:				
Research and development	3,221	2,723	9,152	11,247
General and administrative	1,968	1,452	5,811	4,136
Total operating expenses	5,189	4,175	14,963	15,383
Loss from operations	(5,189)	(4,175)	(14,963)	(15,031)
Other income (expense):				
Interest income	141	27	220	65
Change in fair value of warrant liabilities	(5,780)	—	(11,474)	—
Net loss	(10,828)	(4,148)	(26,217)	(14,966)
Unrealized (loss) gain on marketable securities	(10)	(3)	(7)	18
Comprehensive loss	$ (10,838)	$ (4,151)	$ (26,224)	$ (14,948)
Net loss per common share – basic and diluted	$ (0.85)	$ (0.53)	$ (2.48)	$ (2.18)
Weighted-average number of shares outstanding – basic and diluted	12,696,986	7,759,630	10,555,461	6,856,876

See accompanying notes to consolidated financial statements.

SPRING BANK PHARMACEUTICALS, INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS
(Unaudited)
(In Thousands)

	For the Nine Months Ended September 30,	
	2017	**2016**
Cash flows from operating activities:		
Net loss	$ (26,217)	$ (14,966)
Adjustments for:		
Depreciation and amortization	115	87
Change in fair value of warrant liabilities	11,474	—
Non-cash investment income (losses)	(50)	28
Non-cash stock-based compensation	1,483	1,015
Non-cash issuance of common stock and warrants connected to license agreement	—	2,780
Changes in operating assets and liabilities:		
Prepaid expenses and other current assets	(10)	(746)
Other assets	—	(35)
Accounts payable	254	148
Accrued expenses and other liabilities	311	(19)
Net cash used in operating activities	(12,640)	(11,708)
Cash flows from investing activities:		
Purchases of marketable securities	(34,397)	(6,693)
Proceeds from sale of marketable securities	14,605	4,894
Purchases of property and equipment	(127)	(156)
Net cash used in investing activities	(19,919)	(1,955)
Cash flows from financing activities:		
Proceeds from issuance of common stock	42,500	11,339
Payment of finance costs related to issuance of common stock	(2,928)	(2,128)
Proceeds from exercise of warrants	—	5,342
Proceeds from exercise of stock options	92	95
Cash provided by financing activities	39,664	14,648
Net increase in cash, cash equivalents and restricted cash	7,105	985
Cash and cash equivalents, beginning of period	10,684	4,347
Cash, cash equivalents and restricted cash, end of period	$ 17,789	$ 5,332
Supplemental disclosures of cash flow information:		
Cash paid for taxes	$ 1	$ 1
Cash paid for interest	$ —	$ —
Supplemental disclosures of noncash financing activities:		
Issuance of common stock warrants in connection with initial public offering	$ —	$ 218

See accompanying notes to consolidated financial statements.

1. NATURE OF BUSINESS AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Nature of Business

Spring Bank Pharmaceuticals, Inc. (the "Company") is a clinical-stage biopharmaceutical company engaged in the discovery and development of a novel class of therapeutics using a proprietary small molecule nucleic acid hybrid ("SMNH") chemistry platform. The Company is developing its most advanced SMNH product candidate, inarigivir soproxil ("inarigivir") (formerly known as SB 9200), for the treatment of viral diseases. Since inception in 2002 and prior to its initial public offering ("IPO") in May 2016, the Company built its technology platform and product candidate pipeline using a semi-virtual business model, supported by grants and direct funding from the United States National Institutes of Health ("NIH") as well as through private financings. In September 2015, the Company formed a wholly owned subsidiary, Sperovie Biosciences, Inc. and in December 2016, the Company formed a wholly owned subsidiary, SBP Securities Corporation.

The Company's success is dependent upon its ability to successfully complete clinical development and obtain regulatory approval of its product candidates, successfully commercialize approved products, generate revenue, and, ultimately, attain profitable operations. The Company's operations to date have been limited to financing and staffing the Company and the development of inarigivir, SB 11285 and the Company's other product candidates.

Basis of Presentation and Liquidity

The accompanying consolidated financial statements have been prepared in accordance with United States ("U.S.") generally accepted accounting principles ("U.S. GAAP").

Prior to and in connection with the Company completing its IPO in May 2016, the Company effected a 1-for-4 reverse stock split of its common stock on March 8, 2016. All share and per share amounts and the number of shares of common stock set forth in the financial statements and notes thereto have been retroactively adjusted for all periods presented to give effect to the reverse stock split, including reclassifying an amount equal to the reduction in par value of common stock to additional paid-in capital.

The accompanying interim financial statements as of September 30, 2017 and for the nine months ended September 30, 2017 and 2016, and related interim information contained within the notes to the financial statements, are unaudited. In management's opinion, the unaudited interim consolidated financial statements have been prepared on the same basis as the Company's audited financial statements and include all adjustments (including normal recurring adjustments) necessary for the fair presentation of the Company's financial position as of September 30, 2017, results of operations for the nine months ended September 30, 2017 and 2016, and its cash flows for the nine months ended September 30, 2017 and 2016. These interim financial statements should be read in conjunction with the Company's audited financial statements and accompanying notes contained in the Company's Annual Report on Form 10-K for the year ended December 31, 2016, as filed with the Securities and Exchange Commission ("SEC") on February 14, 2017. The results for the three and nine months ended September 30, 2017 are not necessarily indicative of the results expected for the full fiscal year or any interim period.

As of September 30, 2017, the Company had an accumulated deficit of $77.8 million and $52.2 million in cash, cash equivalents and marketable securities.

The Company expects to continue to incur significant and increasing losses for the foreseeable future. The Company anticipates that its expenses will increase significantly as it continues to develop inarigivir, SB 11285 and its other product candidates. The Company does not have any committed external source of funds. As a result, the Company will need additional financing to support its continuing operations. Adequate additional funds may not be available to the Company on acceptable terms, or at all. To the extent that the Company raises additional capital through the sale of equity or convertible debt securities, stockholders' ownership interests will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect common stockholder rights. If the Company raises additional funds through collaborations, strategic alliances or licensing arrangements with third parties, the Company may have to relinquish valuable rights to its technologies, future revenue streams, research programs, or product candidates or grant licenses on terms that may not be favorable to the Company.

Principles of Consolidation

The consolidated financial statements include the accounts of the Company and its wholly owned subsidiaries, Sperovie Biosciences, Inc. and SBP Securities Corporation. Sperovie Biosciences, Inc. had operations consisting mainly of legal fees associated with intellectual property activities as of September 30, 2017. SBP Securities Corporation had assets primarily related to investments in marketable securities and operations consisting primarily of interest income as of September 30, 2017. All intercompany balances and transactions have been eliminated in consolidation.

Use of Estimates

The preparation of consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, the disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. The Company bases estimates and assumptions on historical experience when available and on various factors that it believes to be reasonable under the circumstances. Significant estimates relied upon in preparing the accompanying financial statements related to the fair value of common stock and warrant liabilities, accounting for stock-based compensation, income taxes, useful lives of long-lived assets, and accounting for certain accruals. The Company evaluates its estimates and assumptions on an ongoing basis. The Company's actual results may differ from these estimates.

Cash, Cash Equivalents and Restricted Cash

Cash equivalents are stated at fair value and include short-term, highly liquid investments with remaining maturities of 90 days or less at the date of purchase.

Restricted cash consists of $250,000 and is held as collateral for the Company's credit card program. There were no restricted cash as of December 31, 2016.

Included in cash and cash equivalents as of September 30, 2017 and December 31, 2016 are money market fund investments of $15,164,000 and $9,507,000, respectively, which are reported at fair value (Note 5).

Concentration of Credit Risk

Financial instruments that subject the Company to significant concentrations of credit risk consist primarily of cash, cash equivalents, restricted cash and marketable securities. Substantially all of the Company's cash is held at financial institutions that management believes to be of high-credit quality. Deposits with these financial institutions may exceed the amount of insurance provided on such deposits; however, these deposits may be redeemed upon demand and, therefore, bear minimal risk.

The Company's one source of revenue during the three and nine months ended September 30, 2016 was grants from the NIH, representing 100% of total revenue for such periods. The Company did not have any sources of revenue for the three and nine months ended September 30, 2017.

Investments in Marketable Securities

The Company invests excess cash balances in short-term and long-term marketable securities. The Company classifies investments in marketable securities as either held-to-maturity or available-for-sale based on facts and circumstances present at the time of purchase. At each balance sheet date presented, all investments in securities are classified as available-for-sale. The Company reports available-for-sale investments at fair value at each balance sheet date and includes any unrealized holding gains and losses (the adjustment to fair value) in accumulated other comprehensive income (loss), a component of stockholders' equity. Realized gains and losses are determined using the specific identification method and are included in other income (expense). If any adjustment to fair value reflects a decline in the value of the investment, the Company considers all available evidence to evaluate the extent to which the decline is "other than temporary," including the intention to sell and, if so, marks the investment to market through a charge to the Company's consolidated statements of operations and comprehensive loss.

Property and Equipment, Net

Property and equipment are recorded at cost. Costs associated with maintenance and repairs are expensed as incurred. Depreciation and amortization are provided using the straight-line method over the estimated useful lives:

Asset Category	Useful Life
Equipment	5-7 years
Furniture and fixtures	5 years
Leasehold improvements	Lesser of 10 years or the remaining term of the respective lease

Impairment of Long-Lived Assets

Long-lived assets to be held and used are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of the asset may not be recoverable. When such events occur, the Company compares the carrying amounts of the assets to their undiscounted expected future cash flows. If the undiscounted cash flows are insufficient to recover the carrying value, an impairment loss is recorded for the difference between the carrying value and fair value of the asset. Through September 30, 2017, no such impairment has occurred.

Deferred Rent

The Company's operating leases include rent escalation payment terms and other incentives received from landlords. Deferred rent represents the difference between actual operating lease payments due and straight-line rent expense over the term of the lease, which is recorded in accrued expenses and other current liabilities. The Company had deferred aggregate rent for its research and development facility in Milford, Massachusetts and its headquarters in Hopkinton, Massachusetts of $35,000 and $35,000 as of September 30, 2017 and December 31, 2016, respectively.

Revenue Recognition

The Company recognizes revenue when all of the following criteria are met: there is persuasive evidence of an arrangement, the fee is fixed or determinable, delivery has occurred or services have been rendered and collection of the related receivable is reasonably assured. Generally, these criteria were met and revenue from grants from the NIH, which subsidized certain of the Company's research projects, as efforts were expended and as eligible project costs were incurred.

Research and Development Costs

Research and development expenses consist primarily of costs incurred for the Company's research activities, including discovery efforts, and the development of product candidates, which include:

- expenses incurred under agreements with third parties, including contract research organizations, or CROs, that conduct research, preclinical activities and clinical trials on the Company's behalf as well as contract manufacturing organizations, or CMOs, that manufacture drug products for use in the Company's preclinical and clinical trials;
- salaries, benefits and other related costs, including stock-based compensation expense, for personnel in the Company's research and development functions;
- costs of outside consultants, including their fees, stock-based compensation and related travel expenses;
- the cost of laboratory supplies and acquiring, developing and manufacturing preclinical study and clinical trial materials;
- costs related to compliance with regulatory requirements; and
- facility-related expenses, which include direct depreciation costs and allocated expenses for rent and maintenance of facilities and other operating costs.

The Company expenses research and development costs as incurred. The Company recognizes external development costs based on an evaluation of the progress to completion of specific tasks using information provided to the Company by its vendors and its clinical investigative sites. Payments for these activities are based on the terms of the individual agreements, which may differ from the pattern of costs incurred, and are reflected in the Company's consolidated financial statements as prepaid or accrued research and development expenses.

Warrants

The Company reviews the terms of all warrants issued and classifies the warrants as a component of permanent equity if they are freestanding financial instruments that are legally detachable and separately exercisable, contingently exercisable, do not embody an obligation for the Company to repurchase its own shares, and permit the holders to receive a fixed number of shares of common stock upon exercise. In addition, the warrants must require physical settlement and may not provide any guarantee of value or return. Warrants that meet these criteria are initially recorded at their grant date fair value and are not subsequently remeasured. Warrants that do not meet this criteria are classified as liabilities and remeasured to their fair value at each reporting period.

Stock-Based Compensation

The Company accounts for all stock-based payment awards granted to employees and nonemployees using a fair value method. The Company's stock-based payments include stock options and grants of common stock, including common stock subject to vesting. The measurement date for employee awards is the date of grant, and stock-based compensation costs are recognized as expense over the employees' requisite service period, which is generally the vesting period, on a straight-line basis. The measurement date for nonemployee awards is the date the services are completed, resulting in periodic adjustments to stock-based compensation during the vesting period for changes in the fair value of the awards. Stock-based compensation costs for nonemployees are recognized as expense over the vesting period on a straight-line basis. Stock-based compensation expense is classified in the accompanying consolidated statements of operations and comprehensive loss based on the department to which the related services are provided.

Financial Instruments

The Company's financial instruments consist of cash equivalents, marketable securities, accounts payable and liability classified warrants. The carrying amounts of cash and cash equivalents and accounts payable approximate their fair value due to the short-term nature of those financial instruments. The fair value of the marketable securities and liability classified warrants are remeasured to fair value each reporting period as described in Note 5.

Fair Value Measurements

The Company is required to disclose information on all assets and liabilities reported at fair value that enables an assessment of the inputs used in determining the reported fair values. Accounting Standards Codification ("ASC") 820, *Fair Value Measurements and Disclosures* ("ASC 820"), establishes a hierarchy of inputs used when available. Observable inputs are inputs that market participants would use in pricing the asset or liability based on market data obtained from sources independent of the Company. Unobservable inputs are inputs that reflect the Company's assumptions about the inputs that market participants would use in pricing the asset or liability, and are developed based on the best information available in the circumstances. The fair value hierarchy applies only to the valuation inputs used in determining the reported fair value of the investments and is not a measure of the investment credit quality. The three levels of the fair value hierarchy are described below:

Level 1—Valuations based on unadjusted quoted prices in active markets for identical assets or liabilities that the Company has the ability to access at the measurement date.

Level 2—Valuations based on quoted prices for similar assets or liabilities in markets that are not active or for which all significant inputs are observable, either directly or indirectly.

Level 3—Valuations that require inputs that reflect the Company's own assumptions that are both significant to the fair value measurement and unobservable.

To the extent that valuation is based on models or inputs that are less observable or unobservable in the market, the determination of fair value requires more judgment. Accordingly, the degree of judgment exercised by the Company in determining fair value is greatest for instruments categorized in Level 3. A financial instrument's level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. The Company's assets and liabilities measured at fair value on a recurring basis include cash equivalents, marketable securities and warrant liabilities.

Net Loss Per Share

Basic net loss per share is computed by dividing the net loss by the weighted-average number of shares of common stock outstanding for the period. Diluted net loss per share is computed by dividing the net loss by the weighted-average number of shares of common stock and dilutive common stock equivalents outstanding for the period, determined using the treasury-stock method and the as if-converted method, for convertible securities, if inclusion of these instruments is dilutive. As of September 30, 2017 and December 31, 2016, both methods are equivalent. Common stock, preferred stock and warrant issuances are described further in Note 7.

Income Taxes

Deferred tax assets and liabilities are determined based upon the differences between the financial statement carrying amounts and the tax basis of existing assets and liabilities and for loss and credit carryforwards using enacted tax rates expected to be in effect in the years in which the differences are expected to reverse. Deferred tax assets are reduced by a valuation allowance if it is more likely than not that some portion or all of the deferred tax asset will not be realized.

The Company assesses its income tax positions and records tax benefits based upon management's evaluation of the facts, circumstances and information available at the reporting date. For those tax positions where it is more likely than not that a tax benefit will be sustained, the Company records the largest amount of tax benefit with a greater than 50% likelihood of being realized upon ultimate settlement with a taxing authority having full knowledge of all relevant information. For those income tax positions where it is not more likely than not that a tax benefit will be sustained, no tax benefit is recognized in the consolidated financial statements. The Company classifies interest and penalties associated with such uncertain tax positions as a component of interest expense. As of September 30, 2017 and December 31, 2016, the Company has not identified any material uncertain tax positions.

Guarantees and Indemnifications

As permitted under Delaware law, the Company indemnifies its officers and directors for certain events or occurrences while the officer or director is, or was, serving at the Company's request in such capacity.

The Company leases office space in Hopkinton, Massachusetts and research and development space in Milford, Massachusetts, under non-cancelable operating leases. The Company has standard indemnification arrangements under these leases that require it to indemnify the landlords against liability for injury, loss, accident, or damage from any claims, actions, proceedings, or costs resulting from certain acts, breaches, violations, or nonperformance under the Company's lease.

Through September 30, 2017, the Company had not experienced any losses related to these indemnification obligations and no material claims were outstanding. The Company does not expect significant claims related to these indemnification obligations, and consequently, concluded that the fair value of these obligations is negligible, and no related reserves were established.

Segment Information

Operating segments are identified as components of an enterprise about which separate and discrete financial information is available for evaluation by the chief operating decision maker, the Company's chief executive officer, in making decisions regarding resource allocation and assessing performance. The Company views its operations and manages its business in one operating segment and does not track expenses on a program-by-program basis.

Recently Issued Accounting Pronouncements

In November 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2016-18, *Statement of Cash Flows (Topic 230): Restricted Cash*, which includes provisions intended to clarify how entities present restricted cash and restricted cash equivalents in the statement of cash flows. Companies must show the change in total cash, cash equivalents, restricted cash and restricted cash equivalents in the statement of cash flows. The new standard is applied retrospectively and is effective for our annual periods beginning after December 15, 2017, and for interim periods within those annual periods, with early adoption permitted. The Company elected early adoption of this standard as of September 30, 2017, the first period in which the Company had restricted cash. The adoption of this standard has resulted in the presentation of the change in cash, cash equivalents and restricted cash on the statement of cash flows in the periods presented.

In March 2016, the FASB issued ASU 2016-09, *Compensation – Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting* ("ASU 2016-09") to require changes to several areas of employee stock-based compensation payment accounting in an effort to simplify stock-based compensation reporting. The update revises requirements in the following areas: minimum statutory withholding, accounting for income taxes, forfeitures, and intrinsic value accounting for private entities. ASU 2016-09 is effective for annual reporting periods beginning after December 15, 2016, including interim reporting periods within each annual reporting period. The Company adopted this standard on January 1, 2017. The update revises requirements in the following areas: minimum statutory withholding, accounting for income taxes, and forfeitures. Prior to adoption, the Company applied a 0% forfeiture rate to stock-based compensation, resulting in no cumulative effect adjustment to the opening period. Upon adoption of this standard, the Company's accounting policy is to recognize forfeitures as they occur.

The update requires the Company to recognize the income tax effect of awards in the income statement when the awards vest or are settled. It also allows the Company to repurchase more of an employee's shares than it could prior to the update for tax withholding purposes without triggering a liability. The income tax related items had no effect on the current period presentation and the Company maintains a full valuation allowance against its deferred tax assets.

In May 2014, the FASB issued ASU No. 2014-09, *Revenue from Contracts with Customers* (Topic 606) ("ASC 606"), which amends the guidance for revenue recognition to replace numerous industry-specific requirements. ASC 606 implements a five-step process for customer contract revenue recognition that focuses on transfer of control, as opposed to transfer of risk and rewards. ASC 606 also requires enhanced disclosures regarding the nature, amount, timing, and uncertainty of revenues and cash flows from contracts with customers. Other major provisions include ensuring the time value of money is considered in the transaction price, and allowing estimates of variable consideration to be recognized before contingencies are resolved in certain circumstances. The amendments in ASC 606 are effective for reporting periods beginning after December 15, 2016, and early adoption is not permitted. In July 2015, the FASB approved the deferral of adoption by one year. Entities can transition to the standard either retrospectively or as a cumulative-effect adjustment as of the date of adoption. Until the Company expects material revenue to be recognized, the adoption of this standard is not expected to have an impact on the Company's consolidated financial statements.

In January 2016, the FASB issued ASU 2016-01, *Recognition and Measurement of Financial Assets and Financial Liabilities*, which amends ASC Subtopic 825-10, *Financial Instruments - Overall*, and includes updates on certain aspects of recognition, measurement, presentation and disclosure of financial instruments and applies to all entities that hold financial assets or owe financial liabilities. The new standard is effective for the Company for the annual period beginning after December 15, 2017, with early adoption permitted. The Company is currently evaluating the impact that the adoption of this standard may have on its consolidated financial statements.

In February 2016, the FASB issued ASU 2016-02, *Leases (Topic 842)*, which supersedes the current leasing guidance and upon adoption, will require lessees to recognize right-of-use assets and lease liabilities on the balance sheet for all leases with terms longer than 12 months. The new standard is effective for the Company for the annual period beginning after December 15, 2018, and can be early adopted by applying a modified retrospective approach for leases existing at, and entered into after, the beginning of the earliest comparable period presented in the financial statements. The Company is currently evaluating the impact that the adoption of this standard may have on its consolidated financial statements.

In September 2016, the FASB issued ASU 2016-15, *Classification of Certain Cash Receipts and Cash Payments*, which amends ASC Topic 230, *Statement of Cash Flows*, and includes provisions intended to reduce diversity in practice and provides guidance on eight specific statements of cash flows classification issues. The new standard is effective for the Company for the annual period ending after December 15, 2017, and for annual and interim periods thereafter, with early adoption permitted. The Company is currently evaluating the impact that the adoption of this standard may have on its consolidated financial statements.

In July 2017, the FASB issued ASU 2017-11, *Earnings Per Share (Topic 260), Distinguishing Liabilities from Equity (Topic 480), Derivatives and Hedging (Topic 815): I. Accounting for Certain Financial Instruments with Down Round Features and II. Replacement of the Indefinite Deferral for Mandatorily Redeemable Financial Instruments of Certain Nonpublic Entities and Certain Mandatorily Redeemable Noncontrolling Interests with a Scope Exception.* Part I applies to entities that issue financial instruments such as warrants, convertible debt or convertible preferred stock that contain down round features. Part II simply replaces the indefinite deferral for certain mandatorily redeemable noncontrolling interests and mandatorily redeemable financial instruments of nonpublic entities contained within Accounting Standards Codification (ASC) Topic 480 with a scope exception and does not impact the accounting for these mandatorily redeemable instruments. This ASU is effective for public companies for the annual reporting periods beginning after December 15, 2018, and interim periods within those annual periods. Early adoption is permitted. The Company is currently evaluating the impact that the adoption of this standard may have on its consolidated financial statements.

2. NET LOSS PER SHARE

The following table summarizes the computation of basic and diluted net loss per share of the Company for such periods (in thousands, except share and per share data):

	For the Three Months Ended September 30,		For the Nine Months Ended September 30,	
	2017	2016	2017	2016
Net loss	$ (10,828)	$ (4,148)	$ (26,217)	$ (14,966)
Weighted-average number of common shares-basic and diluted	12,696,986	7,759,630	10,555,461	6,856,876
Net loss per common share-basic and diluted	$ (0.85)	$ (0.53)	$ (2.48)	$ (2.18)

Diluted net loss per common share is the same as basic net loss per common share for all periods presented.

The following potentially dilutive securities outstanding, prior to the use of the treasury stock method or if-converted method, have been excluded from the computation of diluted weighted-average shares outstanding, because such securities had an antidilutive impact due to the losses reported:

	For the Three and Nine Months Ended September 30,	
	2017	2016
Common stock warrants	1,798,084	153,347
Stock options	977,565	718,065

3. INVESTMENTS

Cash in excess of the Company's immediate requirements is invested in accordance with the Company's investment policy that primarily seeks to maintain adequate liquidity and preserve capital.

The following table summarizes the Company's investments, by category, as of September 30, 2017 and December 31, 2016 (in thousands):

	September 30, 2017	December 31, 2016
Investments - Current:		
Debt securities - available for sale	$ 34,640	$ 14,046
Total	$ 34,640	$ 14,046
Investments - Noncurrent:		
Debt securities - available for sale	$ —	$ 752
Total	$ —	$ 752

A summary of the Company's available-for-sale classified investments consisted of the following (in thousands):

	At September 30, 2017			
	Cost Basis	Unrealized Gains	Unrealized Losses	Fair Value
Investments - Current:				
Commercial paper	$ 14,345	$ —	$ —	$ 14,345
Corporate bonds	18,309	—	(7)	18,302
United States treasury securities	1,993	—	—	1,993
Total	$ 34,647	$ —	$ (7)	$ 34,640

	At December 31, 2016			
	Cost Basis	Unrealized Gains	Unrealized Losses	Fair Value
Investments - Current:				
Agency bonds	$ 452	$ —	$ —	$ 452
Commercial paper	2,947	—	—	2,947
Corporate bonds	8,499	—	(7)	8,492
United States treasury securities	2,155	—	—	2,155
Total	$ 14,053	$ —	$ (7)	$ 14,046
Investments - Noncurrent:				
Corporate bonds	752	—	—	752
Total	$ 752	$ —	$ —	$ 752

The amortized cost and fair value of the Company's available-for-sale investments, by contract maturity, as of September 30, 2017 consisted of the following (in thousands):

	Amortized Cost	Fair Value
Due in one year or less	$ 34,647	$ 34,640
Due after one year through two years	—	—
Total	$ 34,647	$ 34,640

4. PROPERTY AND EQUIPMENT, NET

Property and equipment as of September 30, 2017 and December 31, 2016 consisted of the following (in thousands):

	September 30, 2017	December 31, 2016
Equipment	$ 683	$ 576
Furniture and fixtures	144	140
Leasehold improvements	149	133
Total property and equipment	976	849
Less: accumulated depreciation and amortization	(442)	(327)
Property and equipment, net	$ 534	$ 522

Depreciation and amortization expense for the three and nine months ended September 30, 2017 was $39,000 and $115,000, respectively. Depreciation and amortization expense for the three and nine months ended September 30, 2016 was $30,000 and $87,000, respectively.

5. FAIR VALUE MEASUREMENTS

Fair value is defined as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Valuation techniques used to measure fair value are performed in a manner to maximize the use of observable inputs and minimize the use of unobservable inputs.

The Company classified its money market funds within Level 1 because their fair values are based on their quoted market prices. The Company classified its commercial paper and fixed income securities within Level 2 because their fair values are determined using alternative pricing sources or models that utilized market observable inputs.

A summary of the assets and liabilities that are measured at fair value as of September 30, 2017 and December 31, 2016 is as follows (in thousands):

		Fair Value Measurement at September 30, 2017		
	Carrying Value	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets:				
Money market funds (1)	$ 15,164	$ 15,164	$ —	$ —
Fixed income securities	34,640	—	34,640	—
Total	$ 49,804	$ 15,164	$ 34,640	$ —
Liabilities:				
Warrant liabilities	$ 17,807	$ —	$ —	$ 17,807
Total	$ 17,807	$ —	$ —	$ 17,807

		Fair Value Measurement at December 31, 2016		
Assets:	Carrying Value	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Money market funds (1)	$ 9,507	$ 9,507	$ —	$ —
Fixed income securities	14,798	—	14,798	—
Total	$ 24,305	$ 9,507	$ 14,798	$ —
Liabilities:				
Warrant liabilities	$ 6,333	$ —	$ —	$ 6,333
Total	$ 6,333	$ —	$ —	$ 6,333

(1) Money market funds are included within cash and cash equivalents in the accompanying consolidated balance sheets are recognized at fair value.

The following table reflects the change in the Company's Level 3 liabilities, which consists of the warrants issued in a private placement in November 2016 (see Note 7), for the period ended September 30, 2017 (in thousands):

	November Private Placement Warrants
Balance at December 31, 2015	$ —
Issuance of warrants	8,275
Change in fair value	(1,942)
Balance at December 31, 2016	6,333
Change in fair value	11,474
Balance at September 30, 2017	$ 17,807

6. ACCRUED EXPENSES AND OTHER CURRENT LIABILITIES

Accrued expenses as of September 30, 2017 and December 31, 2016 consisted of the following (in thousands):

	September 30, 2017	December 31, 2016
Clinical	$ 1,159	$ 738
Compensation and benefits	750	901
Accounting and legal	281	279
Other	122	64
Total accrued expenses	$ 2,312	$ 1,982

7. STOCKHOLDERS' EQUITY

Common and Preferred Stock

Effective February 1, 2016, the Company amended and restated its license agreement with BioHEP Technologies Ltd. ("BioHEP"). In connection with the amendment and restatement, the Company issued 125,000 shares of its common stock to BioHEP and granted to BioHEP a warrant to purchase an additional 125,000 shares of its common stock at an exercise price of $16.00 per share, which warrant will expire on August 1, 2018. The fair value of the common stock as of the date of issuance, $2.0 million, was expensed as research and development costs.

In May 2016, the Company issued and sold in its IPO an aggregate of 944,900 shares of its common stock at $12.00 per share, which included 24,900 shares that represented the exercise of an option to purchase additional shares granted to the underwriters in connection with the IPO. The offering resulted in $8.2 million of net proceeds to the Company, after deducting underwriting discounts and commissions and other offering expenses payable by the Company. Upon the closing of the Company's IPO, the Company filed an amended and restated certificate of incorporation, which authorized the Company to issue 200,000,000 shares of common stock and 10,000,000 shares of preferred stock. In connection with the closing of the IPO, the Company received approximately $5.3 million in proceeds upon the exercise of previously issued warrants to purchase 641,743 shares of common stock of the Company.

Upon the closing of the Company's IPO, all outstanding shares of the Company's preferred stock automatically converted into 250,000 shares of the Company's common stock.

In November 2016, the Company entered into a definitive agreement with respect to the private placement of 1,644,737 shares of common stock and warrants to purchase 1,644,737 shares of common stock (the "November Private Placement Warrants") to a group of accredited investors (the "November Private Placement"). These investors paid $9.12 for each share of common stock and warrant to purchase one share of common stock. The November Private Placement Warrants are exercisable at an exercise price of $10.79 per share and expire on November 23, 2021. The Company completed the November Private Placement on November 23, 2016, resulting in $13.7 million in net proceeds to the Company, after deducting placement agent fees and other offering expenses payable by the Company.

In June 2017, the Company issued and sold in an underwritten public offering an aggregate of 3,269,219 shares of its common stock at $13.00 per share, which included 384,604 shares pursuant to the exercise of an option to purchase additional shares granted to the underwriters in connection with the offering. The offering resulted in $39.6 million of net proceeds to the Company, after deducting underwriting discounts and commissions and other offering expenses payable by the Company.

In August 2017, the Company entered into a Controlled Equity Offering Sales Agreement (the "Sales Agreement") with Cantor Fitzgerald & Co. ("Cantor"), pursuant to which the Company may offer and sell, from time to time through Cantor, shares of the Company's common stock having an aggregate offering price of up to $50.0 million. The Company will pay Cantor a commission rate equal to 3.0% of the aggregate gross proceeds from each sale.

Warrants

In connection with the amendment and restatement of a license agreement with BioHEP, the Company issued a warrant to purchase 125,000 shares of the Company's common stock to BioHEP (the "BioHEP Warrant"), effective February 1, 2016. The Company evaluated the terms of the warrant and concluded that it should be equity-classified. The fair value of the warrant, $0.8 million, was estimated on the issuance date using a Black Scholes pricing model based on the following assumptions: an expected term of two and a half years, expected stock price volatility of 71%, a risk free rate of 1.01%, and a dividend yield of 0%. The fair value was expensed as research and development costs.

In connection with the Company's IPO, the Company issued to the sole book-running manager for the IPO a warrant to purchase 27,600 shares of common stock in May 2016 and a warrant to purchase 747 shares of common stock in June 2016 (together, the "IPO Warrants"). The IPO Warrants are exercisable at an exercise price of $15.00 per share and expire on May 5, 2021. The Company evaluated the terms of the IPO Warrants and concluded that they should be equity-classified. The fair value of the May 2016 IPO Warrants was estimated on the applicable issuance dates using a Black Scholes pricing model based on the following assumptions: an expected term of 4.99 years; expected stock price volatility of 87%; a risk free rate of 1.20%; and a dividend yield of 0%. The fair value of the June 2016 IPO Warrants was estimated on the applicable issuance dates using a Black Scholes pricing model based on the following assumptions: an expected term of 4.92 years; expected stock price volatility of 87%; a risk free rate of 1.23%; and a dividend yield of 0%. The aggregate fair value of the IPO Warrants was $0.2 million.

The Company received approximately $5.3 million in proceeds upon the exercise of warrants to purchase 641,743 shares of its common stock of the Company, which were exercised in connection with the closing of the IPO. Upon the closing of the Company's IPO, all of the outstanding warrants that were not exercised, except the BioHEP warrant and the IPO Warrants, terminated in accordance with their original terms.

In connection with the November Private Placement, the Company issued the November Private Placement Warrants to purchase 1,644,737 shares of common stock in November 2016 to a group of accredited investors. The November Private Placement Warrants are exercisable at an exercise price of $10.79 per share and expire on November 23, 2021. The Company evaluated the terms of these warrants and concluded that they are liability-classified. In November 2016, the Company recorded the fair value of these warrants of approximately $8.3 million using a Black Scholes pricing model. The Company must recognize any change in the value of the warrant liability each reporting period in the statement of operations. As of December 31, 2016 and September 30, 2017, the fair value of the November Private Placement Warrants was approximately $6.3 million and $17.8 million, respectively (see Note 5).

A summary of the Black Scholes pricing model assumptions used to record the fair value of the warrants is as follows:

	September 30, 2017	December 31, 2016
Risk-free interest rate	1.8%	1.9%
Expected term (in years)	4.1	4.9
Expected volatility	70.0%	65.5%
Expected dividend yield	0%	0%

The following table summarizes the warrant activity for the year ended December 31, 2016 and for the nine months ended September 30, 2017:

	Warrants
Outstanding at December 31, 2015	1,181,776
Grants	1,798,084
Exercises	(641,743)
Expirations/cancellations	(540,033)
Outstanding at December 31, 2016	1,798,084
Grants	—
Exercises	—
Expirations/cancellations	—
Outstanding at September 30, 2017	1,798,084

2014 Stock Incentive Plan

In April 2014, the Company's Board of Directors approved the 2014 Stock Incentive Plan (the "2014 Plan"). The Company's 2014 Plan provides for the issuance of common stock, stock options and other stock-based awards to employees, officers, directors, consultants, and advisors. As of September 30, 2017, the Board had authorized 750,000 shares of common stock to be issued under the 2014 Plan. The Company's 2015 Stock Incentive Plan (the "2015 Plan") became effective immediately prior to the closing of the Company's IPO on May 11, 2016. Upon the effectiveness of the 2015 Plan, 116,863 shares of common stock that remained available for grant under the 2014 Plan became available for grant under the 2015 Plan, and no further awards were available to be issued under the 2014 Plan.

2015 Stock Incentive Plan

The 2015 Plan provides for the issuance of common stock, stock options and other stock-based awards to employees, officers, directors, consultants and advisors of the Company. The number of shares reserved for issuance under the 2015 Plan is the sum of 750,000 shares of common stock, plus the number of shares equal to the sum of (i) 116,863 shares of common stock, which was the number of shares reserved for issuance under the 2014 Plan that remained available for grant under the 2014 Plan immediately prior to the closing of the Company's IPO, and (ii) the number of shares of common stock subject to outstanding awards under the 2014 Plan that expire, terminate or are otherwise surrendered, cancelled or forfeited. The exercise price of stock options cannot be less than the fair value of the common stock on the date of grant. Stock options awarded under the 2015 Plan expire 10 years after the grant date, unless the Board sets a shorter term. As of September 30, 2017, the Company had 472,087 shares available for issuance under the 2015 Plan.

The following table summarizes the option activity for the nine months ended September 30, 2017, under the 2014 Plan and the 2015 Plan (collectively the "Plans"):

	Options	Weighted-Average Exercise Price Per Share	Aggregate Intrinsic Value
Options outstanding at December 31, 2015	610,481	$ 11.99	$ —
Granted	128,334	10.41	—
Exercised	(10,247)	9.28	29,550
Cancelled	(24,253)	9.89	—
Outstanding at December 31, 2016	704,315	$ 11.82	—
Granted	286,500	8.20	—
Exercised	(10,000)	9.28	11,228
Cancelled	(3,250)	12.44	—
Options outstanding at September 30, 2017	977,565	$ 10.78	$ 5,923,320
Options exercisable at September 30, 2017	390,417	$ 11.67	$ 2,019,924

As of September 30, 2017, all options granted are expected to vest and the weighted-average remaining contractual life of all options is 8.4 years. The weighted-average fair value of all stock options granted for the nine months ended September 30, 2017 was $5.67. Intrinsic value at September 30, 2017 is based on the closing price of the Company's common stock of $16.84 per share.

Prior to the Company's IPO on May 11, 2016, the Board determined the estimated fair value of the Company's common stock on the date of grant based on a number of objective and subjective factors, including third party valuations. Since the IPO, the fair value of the Company's common stock on the date of the grant is based on the closing price per share of the common stock on the NASDAQ Capital Market on the date of grant. The computation of expected volatility is based on the historical volatilities of peer companies. The peer companies include organizations that are in the same industry, with similar size and stage of growth. The Company estimates that the expected life of the options granted using the simplified method allowable under the SEC's Staff Accounting Bulletin No. 107, *Share Based Payments*. The interest rate is based on the U.S. Treasury bill rates for U.S. treasury bills with terms commensurate with the expected term of the option grants on the grant date of the option. The Company accounts for stock option forfeitures when they occur.

There were no stock options granted prior to 2015. The assumptions the Company used to determine the fair value of stock options granted to employees and directors in 2017 and 2016 are as follows, presented on a weighted-average basis.

	Nine Months Ended September 30,	
	2017	2016
Risk-free interest rate	2.0%	1.4%
Expected term (in years)	6.0	6.1
Expected volatility	79.8%	77.6%
Expected dividend yield	0%	0%

The following table summarizes the stock-based compensation expense for the three and nine months ended September 30, 2017 and 2016, under the Plans (in thousands):

	For the Three Months Ended September 30,		For the Nine Months Ended September 30,	
	2017	2016	2017	2016
Stock-based compensation:				
Research and development	$ 121	$ 104	$ 402	$ 286
General and administrative	389	274	1,081	729
Total Stock-based compensation	$ 510	$ 378	$ 1,483	$ 1,015

The fair value of stock options vested during the nine months ended September 30, 2017 was $1,275,000. At September 30, 2017, there was $3,875,000 of unrecognized stock-based compensation expense relating to stock options granted pursuant to the Plans, which will be recognized over the weighted-average remaining vesting period of 2.3 years.

Reserved Shares

As of September 30, 2017 and 2016, the Company has reserved the following shares of common stock for potential conversion of the exercise of warrants and outstanding options and issuance of shares available for grant under the 2015 Plan:

	September 30,	
	2017	2016
2016 BioHEP warrants	125,000	125,000
2016 IPO warrants	28,347	28,347
November Private Placement warrants	1,644,737	—
2014 and 2015 Stock incentive plans	1,449,652	1,475,000
Total	3,247,736	1,628,347

8. COMMITMENTS AND CONTINGENCIES

Leases

In April 2015, the Company entered into an amendment to the lease for its research and development facility in Milford, Massachusetts to extend the term of the lease through March 31, 2018 and expand the leased laboratory space.

In March 2016, the Company entered into a new operating lease for its headquarters in Hopkinton, Massachusetts with a lease term through May 31, 2021. The total payments due during the term of the lease are approximately $771,000.

Rent paid for the three and nine months ended September 30, 2017 was $59,000 and $174,000, respectively. Rent paid for the three and nine months ended September 30, 2016 was $56,000 and $110,000, respectively.

Future minimum commitments due under all leases at September 30, 2017 are as follows (in thousands):

Year	
2017	$ 59
2018	174
2019	157
2020	164
Thereafter	70
Total minimum lease payments	$ 624

See subsequent events (Note 10) regarding a new lease commitment that the Company entered into after September 30, 2017. The commitments under the new lease agreement are not included in the table above.

BioHEP Technologies Ltd. License Agreement

In January 2016, the Company entered into an amended and restated license agreement with BioHEP, which became effective on February 1, 2016.

Under the amended and restated license agreement, the Company agreed to pay BioHEP up to $3.5 million in development and regulatory milestone payments for disease(s) caused by each distinct virus for which the Company develops licensed product(s). BioHEP is also eligible to receive tiered royalties in the low-to-mid single-digits on net product sales of licensed products by the Company and its affiliates and sub licensees, and a specified share of non-royalty sublicensing revenues the Company and its affiliates receive from sub licensees, which share of sublicensing revenues is capped at a maximum aggregate of $2.0 million under all such sublicenses.

Contingencies

The Company accrues for contingent liabilities to the extent that the liability is probable and estimable. There are no accruals for contingent liabilities in these consolidated financial statements.

During May 2015, the Company entered into a transition agreement with the Company's former President and Chief Executive Officer. Under the transition agreement, he continued to serve as the Company's president and chief executive officer for a transition period that ended on August 17, 2015. Following the transition period, the Company made 18 monthly payments totaling $464,000 and also provided benefits consistent with the coverage that was provided prior to the execution of the transition agreement. There was no remaining unpaid balance relating to this obligation at September 30, 2017.

9. RELATED PARTY TRANSACTIONS

During the nine months ended September 30, 2016, the Company reimbursed BioHEP, a greater than five percent stockholder as of September 30, 2016, $14,000 for legal expenses that BioHEP incurred in connection with entering into the amended and restated license agreement. The Company incurred no such payments during the nine months ended September 30, 2017.

10. SUBSEQUENT EVENTS

The Company has evaluated subsequent events through the date on which the consolidated financial statements were issued, to ensure that this submission includes appropriate disclosure of events both recognized in the consolidated financial statements and events which occurred subsequently but were not recognized in the consolidated financial statements.

On October 4, 2017, the Company entered into a lease agreement (the "New Lease") in Hopkinton, Massachusetts. The premises covered by the New Lease will serve as the Company's new principal office and laboratory space. The initial term of the New Lease is 125 months beginning on the date on which the landlord substantially completes certain renovations to the premises covered by the New Lease. The Company has the option to extend the New Lease one time for an additional 5-year period. Following an eleven-month rent abatement period, the Company will be obligated to make monthly rent payments in the amount of $34,533, which is subject to increase by approximately 3% annually for the first five years of the New Lease and by approximately 2.5% annually thereafter. The total lease payments due during the term of the lease are approximately $4.4 million. In addition, the Company is responsible under the New Lease for specified costs and charges, including certain operating expenses, utilities, taxes and insurance.

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

You should read the following discussion and analysis of financial condition and results of operations together with Part I, Item 1"Financial Statements" and related notes included elsewhere in this Quarterly Report on Form 10-Q.

Overview

We are a clinical-stage biopharmaceutical company engaged in the discovery and development of a novel class of therapeutics using our proprietary small molecule nucleic acid hybrid, or SMNH, chemistry platform. Our SMNH compounds are small segments of nucleic acids that we design to selectively target and modulate the activity of specific proteins implicated in various disease states. We are developing our most advanced SMNH product candidate, inarigivir soproxil (formerly known as SB 9200), which we refer to as inarigivir, for the treatment of certain viral diseases. We have designed inarigivir to selectively activate within infected cells the cellular proteins, retinoic acid-inducible gene 1 (RIG-I) and nucleotide-binding oligomerization domain-containing protein 2 (NOD2), to inhibit viral replication and to cause the induction of intracellular interferon signaling pathways for antiviral defense. We believe that inarigivir may play an important role in antiviral therapy by modulating the body's immune response through its mechanisms of action to fight viral infections. We are also developing other SMNH product candidates, including SB 11285, an immunotherapeutic agent for the treatment of selected cancers through the activation of the STimulator of INterferon Genes, or STING, pathway.

RIG-I Product Candidates

We are currently developing inarigivir for the treatment of chronic hepatitis B virus, or HBV. We are conducting Part A of our Phase 2 ACHIEVE multi-center clinical trial of inarigivir in Canada, Hong Kong, Korea and Taiwan. Part A of the Phase 2 ACHIEVE trial is a randomized, placebo-controlled, multiple ascending dose trial in up to 80 non-cirrhotic patients infected with chronic HBV using doses of 25 mg, 50 mg, 100 mg and 200 mg of inarigivir as a monotherapy administered daily for 12 weeks. Following this treatment, all patients will receive treatment with the oral antiviral agent tenofovir disoproxil fumarate (marketed by Gilead Sciences, Inc., or Gilead, as Viread®), which we refer to as Viread, as a monotherapy for 12 weeks. Patients will be sequentially enrolled into one of the four dose cohorts and randomized between the inarigivir dose group or placebo on a 4:1 basis. Patients are stratified based on HBeAg positive (+) or negative (–) status. HBeAg is a non-structural protein which is secreted by the virus and whose presence in blood, or HBeAg–positive, is indicative of wild type or non-mutated virus with high levels of viral replication. The loss of HBeAg occurs secondary to mutations in the virus and results in a patient becoming HBeAg negative with a resulting lower level of actively replicating virus. The primary endpoints of Part A of the Phase 2 ACHIEVE clinical trial are safety and antiviral activity, as measured by the change in HBV DNA at week 12 from baseline. Multiple exploratory secondary endpoints include reduction or loss of hepatitis B surface antigen, or HBsAg, and HBeAg, quantitative HBV RNA as a marker for control of virus production and studies of immune activity.

In May 2017, we reported top-line results from the first inarigivir monotherapy dosing cohort of Part A of the Phase 2 ACHIEVE clinical trial indicating that a low dose (25mg) of inarigivir alone showed a favorable safety profile and antiviral activity against HBV DNA and HBsAg. The first inarigivir monotherapy dosing cohort consisted of 11 HBeAg-positive and 9 HBeAg–negative patients, of which 80% were genotype B/C, the most common Asian genotypes. Administration of inarigivir resulted in a statistically significant reduction in HBV DNA at week 12 (unpaired t-test 2.85, p=0.01) compared to placebo, with a mean reduction of 0.6 $\log_{10}$ (range 0 to 1.87 $\log_{10}$) in the inarigivir treatment group. For the secondary endpoint of reduction or loss of HBsAg, 5 of 16 patients (31%) in the inarigivir treatment group had a greater than 0.5 $\log_{10}$ reduction at any time point (range 0.52 to 1.01 $\log_{10}$), compared to none in the placebo group. The 7 HBeAg–negative patients in the inarigivir treatment group had the greatest mean reduction in HBV DNA at 0.9 $\log_{10}$, and 3 of these 7 patients also had a greater than 0.5 $\log_{10}$ reduction in HBsAg. The overall safety profile of inarigivir was favorable with no serious adverse events observed during the 12 week study. Treatment-emergent adverse events ranged from mild to moderate in severity with no interferon-like side effects and were comparable to patients on placebo.

In October 2017, we reported additional results from the first cohort of Part A of the Phase 2 ACHIEVE clinical trial consisting of patient data from 12 weeks of Viread monotherapy treatment that followed 12 weeks of inarigivir (25mg) monotherapy treatment. Treatment with Viread monotherapy during weeks 12-24 of the first cohort induced potent suppression of HBV DNA in all patients including placebo, and 6 of 16 patients (38%) in the inarigivir treatment group had a greater than 0.5 $\log_{10}$ reduction in HBsAg at week 24, which included 3 HBeAg-positive patients. An associated greater than 0.75 $\log_{10}$ reduction in HBeAg was seen in 4 of 9 (44%) HBeAg-positive patients in the inarigivir treatment group, compared to zero of four (0%) in the placebo group. We believe this data suggests an enhanced effect of Viread in the inarigivir treated patients and is supportive of the proposed combination strategy that will be evaluated in Part B of the Phase 2 ACHIEVE trial, as discussed below.

We expect to report top-line results from the second inarigivir monotherapy dosing cohort (50mg) of Part A of the Phase 2 ACHIEVE clinical trial in the fourth quarter of 2017, and to report top-line monotherapy results for all patients treated with inarigivir alone in the second half of 2018.

Part B of the Phase 2 ACHIEVE clinical trial, which we expect to initiate in the second half of 2018, will consist of 12 weeks of combination treatment with inarigivir (100mg) and Viread. Following this treatment, all patients will receive treatment with Viread as a monotherapy for 12 weeks. We expect to initiate Part B of this clinical trial in the second half of 2018. Both Parts A and B of the Phase 2 ACHIEVE clinical trial are being conducted under our clinical trial supply and collaboration agreement with Gilead.

We have entered into multiple collaborations and seek to enter into additional collaborations with third parties that are investigating and/or developing compounds for the treatment of chronic HBV with different pharmacological mechanisms of action than inarigivir. Pursuant to this strategy, in 2016, we entered into an agreement with Arrowhead Pharmaceuticals, Inc., or Arrowhead, to collaborate on the study of the combined use of inarigivir and Arrowhead's small interfering ribonucleic acid, or siRNA, product pipeline for the treatment of chronic HBV. Under this collaboration with Arrowhead, we agreed first to study the co-administration of both agents in preclinical models, with the potential to be added to a clinical study. We have also entered into a material transfer agreement with a third party to conduct preclinical experiments examining the co-administration of inarigivir with a capsid inhibitor for the potential treatment of patients infected with chronic HBV. Additionally, in July 2017, we entered into a clinical trial collaboration with Gilead under which Gilead will fund and conduct a Phase 2 trial examining the co-administration of inarigivir and tenofovir alafenamide (marketed by Gilead as Vemlidy®) in patients infected with chronic HBV. The protocol for this Phase 2 clinical trial provides that treatment will consist of 12 weeks of combination therapy with inarigivir (50mg) and Vemlidy. Following this treatment, all patients will receive treatment with Vemlidy as a monotherapy for 12 weeks. We anticipate that Gilead will initiate this clinical trial in the first quarter of 2018.

We are also pursuing the development of the co-formulation of inarigivir with Viread and with entecavir (marketed as Baraclude®), which we refer to as Baraclude, as potential fixed-dose combination products for the treatment of patients with chronic HBV who may benefit from the combined use of inarigivir as a potential immunomodulatory agent, and Baraclude or Viread, as the antiviral agent. We anticipate that the fixed-dose combination product(s) could result in enhanced patient compliance and potentially allow for a more favorable safety profile. We have conducted early development work on a co-formulation of inarigivir with Viread and believe that inarigivir with Viread is compatible in the same formulation. We believe that the immunomodulatory activity provided by inarigivir could become a key component of a future combinatorial treatment of patients infected with chronic HBV, which could increase the percentage of chronic HBV patients who achieve a functional cure.

STING Agonist Product Candidates

We are developing SB 11285, a novel proprietary STING agonist, as a potential immunotherapeutic agent for the treatment of selected cancers. Recent published scientific literature indicates that the activation of the STING pathway can result in the induction of cellular interferons and cytokines and promote an aggressive and strong anti-tumor response through the induction of innate and adaptive immune response. In our preclinical studies performed in *in vitro* systems, SB 11285 has been observed to cause the induction of interferon and other cytokines, as well as cell death, or apoptosis, of multiple tumor-derived cell lines.

We continue to conduct preclinical studies of SB 11285 in multiple *in vivo* cancer models. In 2017, we have presented data from *in vivo* studies in the A20 lymphoma, CT26 colon carcinoma, B16 melanoma and orthotopic4T1 breast cancer syngeneic mouse models at various industry conferences, including the March 2017 Cancer Immunology and Immunotherapy Keystone Symposia, the June 2017 American Society of Clinical Oncology (ASCO) Annual Meeting and the October 2017 American Association for Cancer Research (AACR) Conference on Tumor Immunology and Immunotherapy. SB 11285 was evaluated for tumor growth inhibition and tumor growth delay and has shown that it is highly potent and has a durable anti-tumor response when administered intravenously, intratumorally and intraperitoneally across different tumor models. The induction of immune-memory, tumor growth inhibition and abscopal anti-tumor activity upon intra-tumoral administration of SB 11285 has been observed in the A20 lymphoma model. In addition, in the CT26 colon cancer syngeneic mouse model, SB 11285 has exhibited dose-dependent, potent tumor growth inhibition and durable anti-tumor response upon intra-tumoral, intraperitoneal and intravenous routes of administration. In the B16 melanoma model, intravenous and intraperitoneal administration of SB 11285 showed significant inhibition of tumor growth. In the orthotopic 4T1 breast cancer model, intraperitoneal administration of SB 11285 resulted in significant inhibition of primary tumor growth, as well as inhibition of tumor metastasis. In the rat orthotopic bladder cancer model, intravenous administration of SB 11285 resulted in potent, dose-dependent inhibition of tumor growth in bladder. As part of the mechanism of action, immuno-histochemistry combined with flow cytometric analysis of tissues and blood from SB 11285-treated groups were conducted which revealed the presence of activated immune cells, including CD8+ T cells, natural killer (NK) cells and macrophages critical for anti-tumor activity. We believe these preclinical studies demonstrate the potential for both intra-tumoral and systemic administration of SB 11285 to target a variety of tumors, which could potentially be used in combination with other therapeutic modalities.

We intend to continue the development of SB 11285 as a potentially important addition to the current standard of care in the treatment of various cancers that we believe could increase the treatment responses in patients. We intend to continue to advance the SB 11285 program with preclinical, toxicology, and process development efforts. Subject to the results of these preclinical studies, we hope to submit an investigational new drug application, or IND, and/or a clinical trial application, or CTA, for SB 11285 in mid-2018, and, if cleared, commence Phase Ib/II clinical trials in liver cancer in the second half of 2018.

In August 2017, we entered into a preclinical research collaboration with a third party to examine the potential for the conjugation of selected compounds from our STING agonist platform with selected proprietary antibodies from the third-party's immune-oncology portfolio.

Recent Developments

On October 4, 2017, we entered into a lease agreement, or the New Lease, in Hopkinton, Massachusetts. The premises covered by the New Lease will serve as our new principal office and laboratory space. The initial term of the New Lease is 125 months beginning on the date on which the landlord substantially completes certain renovations to the premises covered by the New Lease. We have the option to extend the New Lease one time for an additional 5-year period. The total lease payments due during the term of the lease are approximately $4.4 million.

Financial Operations Overview

To date, we have devoted substantially all of our resources to research and development efforts, including conducting clinical trials for our product candidates, protecting our intellectual property and providing general and administrative support for these operations. We have not generated any revenue to date other than from grants from the National Institutes of Health, or NIH. We have incurred significant annual net operating losses in every year since our inception and expect to continue to incur significant expenses and net operating losses for the foreseeable future. Our net losses were $10.8 million and $26.2 million for the three and nine months ended September 30, 2017, respectively, and $17.4 million for the year ended December 31, 2016. As of September 30, 2017, we had an accumulated deficit of $77.8 million. Our net losses may fluctuate significantly from quarter to quarter and year to year. We expect to continue to incur significant expenses and increasing operating losses for the next several years. We anticipate that our expenses will increase significantly as we continue to develop inarigivir, SB 11285 and our other product candidates. See "—Liquidity and Capital Resources—Funding Requirements." As a result, we will need additional financing to support our continuing operations. Until such time as we can generate significant revenue from product sales, if ever, we expect to finance our operations through a combination of public or private equity or debt financings or other sources, which may include collaborations with third parties. Arrangements with collaborators or others may require us to relinquish rights to certain of our technologies or product candidates. Adequate additional financing may not be available to us on acceptable terms, or at all. Our inability to raise capital as and when needed would have a negative impact on our financial condition and our ability to pursue our business strategy. We will need to generate significant revenue to achieve and sustain profitability, and we may never be able to do so.

As of September 30, 2017, we had $52.2 million in cash, cash equivalents and marketable securities. We expect that our cash, cash equivalents and marketable securities as of September 30, 2017 will enable us to fund our operating expenses and capital expenditure requirements through the end of 2019. However, we anticipate that our existing cash, cash equivalents, restricted cash and marketable securities will not be sufficient to fund additional development of inarigivir beyond our Phase 2 ACHIEVE clinical trial. See "—Liquidity and Capital Resources."

Grant revenue

Historically, we have generated revenue from grants from the NIH for the development of inarigivir. The NIH grants provided funding of $6.8 million between October 2003 and April 2016. As of September 30, 2017, no additional funding remains available to us under any grant for the development of any of our product candidates.

Operating expenses

Our operating expenses since inception have consisted primarily of research and development expense and general and administrative costs.

Research and development

Research and development expenses consist primarily of costs incurred for our research activities, including our discovery efforts, and the development of our product candidates, which include:

- expenses incurred under agreements with third parties, including contract research organizations, or CROs, that conduct research, preclinical activities and clinical trials on our behalf as well as contract manufacturing organizations, or CMOs, that manufacture drug products for use in our preclinical and clinical trials;
- salaries, benefits and other related costs, including stock-based compensation expense, for personnel in our research and development functions;
- costs of outside consultants, including their fees, stock-based compensation and related travel expenses;
- the cost of laboratory supplies and acquiring, developing and manufacturing preclinical study and clinical trial materials;
- costs related to compliance with regulatory requirements; and
- facility-related expenses, which include direct depreciation costs and allocated expenses for rent and maintenance of facilities and other operating costs.

We expense research and development costs as incurred. We recognize external development costs based on an evaluation of the progress to completion of specific tasks using information provided to us by our vendors and our clinical investigative sites. Payments for these activities are based on the terms of the individual agreements, which may differ from the pattern of costs incurred, and are reflected in our consolidated financial statements as prepaid or accrued research and development expenses.

Our primary focus of research and development since inception has been on the development of inarigivir. Our direct research and development expenses consist primarily of external costs, such as fees paid to investigators, consultants and CROs in connection with our preclinical studies and clinical trial and regulatory fees. We do not allocate employee-related costs and other indirect costs to specific research and development programs because our primary focus has been on the discovery and development of inarigivir. Our direct research and development expenses are not currently tracked on a program-by-program basis.

The successful development of our product candidates is highly uncertain. Accordingly, at this time, we cannot reasonably estimate the nature, timing and costs of the efforts that will be necessary to complete the remainder of the development of these product candidates. We are also unable to predict when, if ever, we will generate revenues from inarigivir or any of our other current or potential product candidates. This is due to the numerous risks and uncertainties associated with developing medicines, including the uncertainties of:

- establishing an appropriate safety profile with IND-enabling toxicology studies;
- successful enrollment in and completion of clinical trials;
- receipt of marketing approvals from applicable regulatory authorities;
- establishing commercial manufacturing capabilities or making arrangements with third-party manufacturers;
- obtaining and maintaining patent and trade secret protection and regulatory exclusivity for our product candidates;
- launching commercial sales of the products, if and when approved, whether alone or in collaboration with others; and
- a continued acceptable safety profile of the products following approval.

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

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. We expect that our research and development expenses will continue to increase in the foreseeable future as we continue development of our product candidates. However, we do not believe that it is possible at this time to accurately project total program-specific expenses through commercialization. There are numerous factors associated with the successful commercialization of any of our product candidates, including future trial design and various regulatory requirements, many of which cannot be determined with accuracy at this time based on our stage of development. Additionally, future commercial and regulatory factors beyond our control will impact our clinical development programs and plans.

General and administrative

General and administrative expenses consist primarily of salaries and other related costs, including stock-based compensation, for personnel in our executive, finance, corporate and business development and administrative functions. General and administrative expenses also include legal fees relating to patent and corporate matters; professional fees for accounting, auditing, tax and consulting services; insurance costs; travel expenses; and facility-related expenses, which include direct depreciation costs and allocated expenses for rent and maintenance of facilities and other operating costs.

We anticipate that our general and administrative expenses will increase in the future as we increase our headcount to support the expected growth in our research and development activities and the potential commercialization of our product candidates. We also expect to continue to incur significant expenses associated with being a public company, including increased costs of accounting, audit, legal, regulatory and tax-related services associated with maintaining compliance with exchange listing and SEC requirements, director and officer insurance costs, and investor and public relations costs.

Other income (expense)

Other income (expense) consists of interest income earned on our cash, cash equivalents, restricted cash and marketable securities and the gain/loss on the change in the fair value of the warrant liabilities.

Critical Accounting Policies and Significant Judgments and Estimates

Our consolidated financial statements are prepared in accordance with generally accepted accounting principles in the United States of America. The preparation of our consolidated financial statements and related disclosures requires us to make estimates and assumptions that affect the reported amount of assets, liabilities, revenue, costs and expenses and related disclosures. We believe that the estimates and assumptions involved in the accounting policies described therein may have the greatest potential impact on our consolidated financial statements and, therefore, consider these to be our critical accounting policies. We evaluate our estimates and assumptions on an ongoing basis. Our actual results may differ from these estimates under different assumptions and conditions.

Accrued Research and Development Expenses

As part of the process of preparing our consolidated financial statements, we are required to estimate our accrued research and development expenses. This process involves reviewing open contracts and purchase orders, communicating with our personnel to identify services that have been performed on our behalf and estimating the level of service performed and the associated costs incurred for the services when we have not yet been invoiced or otherwise notified of the actual costs. The majority of our service providers invoice us in arrears for services performed, on a predetermined schedule or when contractual milestones are met; however, some require advanced payments. We make estimates of our accrued expenses as of each balance sheet date in our consolidated financial statements based on facts and circumstances known to us at that time. Examples of estimated accrued research and development expenses include fees paid to:

- CROs in connection with performing research services on our behalf and clinical trials;
- investigative sites or other providers in connection with clinical trials;
- vendors in connection with preclinical and clinical development activities; and
- vendors related to product manufacturing, development and distribution of preclinical and clinical supplies.

We base our expenses related to preclinical studies and clinical trials on our estimates of the services received and efforts expended pursuant to quotes and contracts with CROs that conduct and manage clinical trials on our behalf. The financial terms of these agreements are subject to negotiation, vary from contract to contract and may result in uneven payment flows. There may be instances in which payments made to our vendors will exceed the level of services provided and result in a prepayment of the clinical expense. Payments under some of these contracts depend on factors such as the successful enrollment of patients and the completion of clinical trial milestones. In accruing service fees, we estimate the time period over which services will be performed, enrollment of patients, number of sites activated and the level of effort to be expended in each period. If the actual timing of the performance of services or the level of effort varies from our estimate, we adjust the accrual or amount of prepaid expense accordingly. Although we do not expect our estimates to be materially different from amounts actually incurred, our understanding of the status and timing of services performed relative to the actual status and timing of services performed may vary and may result in us reporting amounts that are too high or too low in any particular period. To date, we have not made any material adjustments to our prior estimates of accrued research and development expenses.

Equity-Classified Warrants

In connection with entering into the amended and restated license agreement with BioHEP effective February 1, 2016, we issued to BioHEP a warrant to purchase 125,000 shares of our common stock at a purchase price of $16.00 per share. We evaluated the terms of the warrant and concluded that it should be equity-classified. The fair value of the warrant, $0.8 million and was expensed as research and development costs.

In connection with our initial public offering, or IPO, we issued the sole book-running manager for the IPO warrants to purchase 28,347 shares of common stock at an exercise price of $15.00 per share, which we refer to collectively as the IPO warrants. We evaluated the terms of the IPO warrants and concluded that they should be equity-classified. The aggregate fair value of the IPO warrants was $0.2 million. See Note 7 of the notes to the unaudited financial statements included elsewhere in this Quarterly Report on Form 10-Q.

Liability-Classified Warrants

In connection with our private placement offering in November 2016, or the November private placement, we issued warrants to purchase 1,644,737 shares of common stock to a group of accredited investors. The warrants will be exercisable beginning May 24, 2017 at an exercise price of $10.79 per share. We evaluated the terms of the warrants and concluded that they should be liability-classified. We recognize any change in the value of the warrant liability each reporting period in the statement of operations. As of September 30, 2017, the fair value of the warrants was approximately $17.8 million, which is an increase of $11.5 million from the fair value of approximately $6.3 million as of December 31, 2016. See Note 7 of the notes to the unaudited financial statements included elsewhere in this Quarterly Report on Form 10-Q.

Stock-Based Compensation

We measure stock options and other stock-based awards granted to employees and directors based on the fair value on the date of grant and recognize the corresponding compensation expense of those awards, net of estimated forfeitures, over the requisite service period, which is generally the vesting period of the respective award. Generally, we issue stock options and restricted stock awards with only service-based vesting conditions and record the expense for these awards using the straight-line method.

We measure stock options and other stock-based awards granted to consultants and nonemployees based on the fair value of the award on the date at which the related service is complete. We recognize this compensation expense over the period during which services are rendered by such consultants and nonemployees until completed. At the end of each financial reporting period prior to completion of the service, we remeasure the fair value of these awards using the then-current fair value of our common stock and updated assumption inputs in the Black-Scholes option-pricing model.

We estimate the fair value of each stock option grant using the Black-Scholes option-pricing model. Use of this model requires that we make assumptions as to the fair value of our common stock, the volatility of our common stock, the expected term of our stock options, the risk-free interest rate for a period that approximates the expected term of our stock options and our expected dividend yield. Because we lack company-specific historical and implied volatility information due in part to the limited time in which we have operated as a publicly traded company, we estimate our expected volatility based on the historical volatility of a group of publicly traded peer companies. We expect to continue to do so until such time as we have adequate historical data regarding the volatility of our traded stock price. We use the simplified method prescribed by the SEC's Staff Accounting Bulletin No. 107, *Share-Based Payment*, to calculate the expected term of options granted to employees and directors. We base the expected term of options granted to consultants and nonemployees on the contractual term of the options. We determine the risk-free interest rate by reference

to the United States Treasury yield curve in effect at the time of grant of the award for time periods approximately equal to the expected term of the award. Expected dividend yield is based on the fact that we have never paid cash dividends and do not expect to pay any cash dividends in the foreseeable future.

There were no stock options granted prior to 2015. We recognize forfeitures as they occur and the compensation expense is reversed in the period that the forfeiture occurs.

In 2015, we began issuing stock options to employees, directors and consultants. During the periods ended September 30, 2017 and 2016, we issued common stock to consultants and advisors as compensation for services and recognized expense equal to the fair value of the shares issued. The following table summarizes the classification of our stock-based compensation expenses recognized in our consolidated statements of operations and comprehensive loss (in thousands):

	For the Three Months Ended September 30,		For the Nine Months Ended September 30,	
	2017	2016	2017	2016
Research and development	$ 121	$ 104	$ 402	$ 286
General and administrative	389	274	1,081	729
	$ 510	$ 378	$ 1,483	$ 1,015

JOBS Act

In April 2012, the Jumpstart Our Business Startups Act of 2012, or the JOBS Act, was enacted. Section 107 of the JOBS Act provides that an "emerging growth company," or EGC, can take advantage of the extended transition period provided in Section 7(a)(2)(B) of the Securities Act for complying with new or revised accounting standards. Thus, an EGC can delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have irrevocably elected not to avail ourselves of this extended transition period and, as a result, we will adopt new or revised accounting standards on the relevant dates on which adoption of such standards is required for other public companies.

Subject to certain conditions, as an EGC, we intend to rely on certain exemptions afforded by the JOBS Act, including the exemption from: certain requirements related to the disclosure of executive compensation in our periodic reports and proxy statements, and the requirement that we hold a nonbinding advisory vote on executive compensation and any golden parachute payments; the requirement that the auditors provide an attestation report on our system of internal controls over financial reporting pursuant to Section 404(b) of the Sarbanes-Oxley Act; and complying with any requirement that may be adopted by the Public Company Accounting Oversight Board, or PCAOB, regarding mandatory audit firm rotation or a supplement to the auditor's report providing additional information about the audit and the financial statements, known as the auditor discussion and analysis. We will remain an EGC until the earliest of the last day of the fiscal year in which we have total annual gross revenues of approximately $1.07 billion or more; the last day of the fiscal year following the fifth anniversary of the date of the completion of the closing of an IPO; the date on which we have issued more than $1 billion in nonconvertible debt during the previous three years; or the date on which we are deemed to be a large accelerated filer under the rules of the Securities and Exchange Commission, or the SEC.

Results of Operations

Comparison of the Three and Nine Months Ended September 30, 2017 and 2016

The following table summarizes our results of operations for the three and nine months ended September 30, 2017 and 2016 (in thousands):

	For the Three Months Ended September 30,		Increase	For the Nine Months Ended September 30,		Increase
	2017	2016	(Decrease)	2017	2016	(Decrease)
Grant revenue	$ —	$ —	$ —	$ —	$ 352	$ (352)
Operating expenses:						
Research and development	3,221	2,723	498	9,152	11,247	(2,095)
General and administrative	1,968	1,452	516	5,811	4,136	1,675
Total operating expenses	5,189	4,175	1,014	14,963	15,383	(420)
Loss from operations	(5,189)	(4,175)	(1,014)	(14,963)	(15,031)	68
Other income	141	27	114	220	65	155
Change in fair value of warrant liabilities	(5,780)	—	(5,780)	(11,474)	—	(11,474)
Net loss	$ (10,828)	$ (4,148)	$ (6,680)	$ (26,217)	$ (14,966)	$ (11,251)

Grant revenue. There was no grant revenue for the three months ended September 2017 and 2016. There was no grant revenue for the nine months ended September 30, 2017 compared to $0.4 million for the nine months ended September 30, 2016. The decrease was primarily due to the completion of our last NIH grant as of April 30, 2016. As of September 30, 2017, no additional funding remained available to us under any grant for the development of any of our product candidates.

Research and development expenses.

Research and development expenses were $3.2 million for the three months ended September 30, 2017, compared to $2.7 million for the three months ended September 30, 2016. The increase of $0.5 million was due primarily to an increase in spending on preclinical studies and clinical trial related activities for inarigivir and preclinical studies for SB 11285 in the three months ended September 30, 2017.

Research and development expenses were $9.1 million for the nine months ended September 30, 2017, compared to $11.2 million for the nine months ended September 30, 2016. The decrease of $2.1 million was due primarily to $2.7 million in non-cash charges primarily in connection with our amended and restated license agreement with BioHEP; offset by an increase of $0.4 million in spending on preclinical studies and clinical trial related activities for inarigivir and SB 11285 in the nine months ended September 30, 2017 and an increase in additional salaries and benefits of $0.2 million associated with higher headcount in the nine months ended September 30, 2017.

General and administrative expenses.

General and administrative expenses were $2.0 million for the three months ended September 30, 2017, compared to $1.5 million for the three months ended September 30, 2016. This increase of $0.5 million was primarily due to an increase in non-cash charges for stock based compensation of $0.1 million, additional salaries and benefits of $0.1 million associated with higher headcount of non-research and development employees in the three months ended September 30, 2017, an increase of $0.1 million for public company related expenses in the three months ended September 30, 2017, an increase of $0.1 million for consulting related costs during the three months ended September 30, 2017 and an increase of $0.1 million for other general and administrative costs in the three months ended September 30, 2017.

General and administrative expenses were $5.8 million for the nine months ended September 30, 2017, compared to $4.1 million for the nine months ended September 30, 2016. This increase of $1.7 million was primarily due to an increase in non-cash charges for stock based compensation of $0.4 million, additional salaries and benefits of $0.7 million associated with higher headcount of non-research and development employees in the nine months ended September 30, 2017, $0.6 million for public company related expenses incurred during the nine months ended September 30, 2017 and $0.1 million for additional rent expense for the nine months ended September 30, 2017; offset by a decrease of $0.1 million for legal and consulting related costs during the nine months ended September 30, 2017.

Other income. Other income for the three and nine months ended September 30, 2017 and 2016 is solely comprised of interest income. Interest income for the three and nine months ended September 30, 2017 was $141,000 and $220,000, respectively, and was primarily related to the interest earned on marketable securities. Interest income for the nine months ended September 30, 2016 was $27,000 and $65,000, respectively, and was primarily related to the interest earned on marketable securities.

Change in fair value of warrant liabilities. Change in fair value of warrant liabilities for the three and nine months ended September 30, 2017 was $5.8 million and $11.5 million, respectively, and was solely related to an increase in the fair value of the warrants from the November private placement, primarily due to the increase in the Company's stock price. There were no warrant liabilities during the three and nine months ended September 30, 2016.

Liquidity and Capital Resources

Sources of Liquidity

From our inception through September 30, 2017, we have financed our operations through proceeds received from private placements of convertible notes, common stock and/or warrants; the exercise of options and warrants; NIH grant funding; and public offerings of securities. As of September 30, 2017, we had cash, cash equivalents and marketable securities totaling $52.2 million and an accumulated deficit of $77.8 million.

In August 2017, we entered into a Controlled Equity Offering Sales Agreement, or Sales Agreement, with Cantor Fitzgerald & Co., or Cantor, pursuant to which we may offer and sell, from time to time through Cantor, shares of our common stock having an aggregate offering price of up to $50.0 million. We will pay Cantor a commission rate equal to 3.0% of the aggregate gross proceeds from each sale. Shares sold under the Sales Agreement will be offered and sold pursuant to our Registration Statement on Form S-3 (Registration No. 333-218399) that was declared effective by the SEC on June 12, 2017, or the Registration Statement, and a prospectus supplement and accompanying base prospectus that we filed with the SEC on August 18, 2017.

In June 2017, we issued and sold in an underwritten public offering an aggregate of 3,269,219 shares of our common stock at $13.00 per share, which included 384,604 shares pursuant to the exercise of an option to purchase additional shares granted to the underwriters in connection with the offering. The shares issued in this offering were registered under the Securities Act pursuant to the Registration Statement. The offering resulted in $39.6 million of net proceeds, after deducting underwriting discounts and commissions and other offering expenses payable by us.

In November 2016, we entered into a definitive agreement with a group of accredited investors resulting in a private placement of 1,644,737 shares of our common stock and warrants to purchase 1,644,737 shares of common stock, which we refer to as the November private placement. These investors paid $9.12 for each share of common stock and warrant to purchase one share of common stock. The warrants will be exercisable beginning May 24, 2017 with a term of five years at an exercise price of $10.79. We completed the November private placement on November 23, 2016, resulting in approximately $15.0 million in gross proceeds. Net proceeds from this issuance after deducting placement agent fees and other offering-related expenses were $13.7 million.

In May 2016, we completed our IPO and sold an aggregate of 944,900 shares of common stock at a price to the public of $12.00 per share, which included 24,900 shares pursuant to the exercise of an option to purchase additional shares granted to the underwriters in connection with the IPO. The offering resulted in $8.2 million of net proceeds, after deducting underwriting discounts and commissions and other offering expenses payable by us. In connection with the closing of the IPO, we received approximately $5.3 million in proceeds upon the exercise of previously issued warrants to purchase 641,743 shares of common stock.

Cash Flows

The following table summarizes sources and uses of cash for each of the periods presented (in thousands):

	For the Nine Months Ended September 30,	
	2017	2016
Net cash used in operating activities	$ (12,640)	$ (11,708)
Net cash used in investing activities	(19,919)	(1,955)
Net cash provided by financing activities	39,664	14,648
Net increase in cash, cash equivalents and restricted cash	$ 7,105	$ 985

Net cash used in operating activities. The use of cash in both periods resulted primarily from our net losses adjusted for non-cash charges and changes in components of working capital. Net cash used in operating activities was $12.6 million and $11.7 million during the nine months ended September 30, 2017 and 2016, respectively. The increase in cash used in operating activities for the nine months ended September 30, 2017 compared to September 30, 2016 was primarily due to an increase in net loss of $11.3 million, which were offset by a decrease in prepaid expenses, accounts payable and accrued expenses of $1.2 million. In addition, there was an increase in the non-cash change in the fair value of the warrant liability of $11.5 million and an increase in non-cash stock based compensation of $0.5 million, which was offset by a decrease in non-cash common stock and warrant valuation expense related to the BioHEP license agreement of $2.8 million for the nine months ended September 30, 2017.

Net cash used in investing activities. Net cash used in investing activities was $19.9 million for the nine months ended September 30, 2017 compared to $2.0 million for the nine months ended September 30, 2016. The cash used in investing activities of $19.9 million in the nine months ended September 30, 2017 was primarily the result of $14.6 million in proceeds from the sale of marketable securities, offset by $34.4 million for the purchase of marketable securities and $0.1 million for the purchase of property and equipment. The cash used in investing activities of $2.0 million for the nine months ended September 30, 2016 was mainly due to proceeds of $4.9 million from the sale of marketable securities, offset by $6.7 million for the purchase of marketable securities and $0.2 million for the purchase of property and equipment for the nine months ended September 30, 2016.

Net cash provided by financing activities. Net cash provided by financing activities was $39.7 million and $14.6 million during the nine months ended September 30, 2017 and 2016, respectively. The cash provided by financing activities in the nine months ended September 30, 2017 was primarily the result of $42.5 million of gross proceeds from the common stock offering and $0.1 million of proceeds from the exercise of stock options, offset by $2.9 million of offering expenses. The cash provided by

financing activities in the nine months ended September 30, 2016 was primarily the result of $11.3 million of gross proceeds received from our IPO, cash of $5.3 million for the exercise of warrants in connection with the closing of our IPO and $0.1 million for the exercise of stock options, offset by $2.1 million in underwriting discounts and offering expenses related to our IPO.

Funding Requirements

We expect to continue to incur significant and increasing losses for the foreseeable future. We anticipate these losses to increase as our expenses increase, and we expect that our expenses will increase if and as we:

- continue to develop and conduct clinical trials of inarigivir, including the ongoing Part A of our Phase 2 ACHIEVE trial of inarigivir for chronic HBV;
- continue preclinical development of SB 11285 and our other product candidates and initiate clinical trials of SB 11285 and our other product candidates, if supported by the preclinical data;
- initiate and continue research and preclinical and clinical development efforts for our other product candidates;
- seek to identify and develop additional product candidates;
- seek regulatory and marketing approvals for our product candidates that successfully complete clinical trials, if any;
- establish sales, marketing, distribution and other commercial infrastructure in the future to commercialize various products for which we may obtain marketing approval, if any;
- require the manufacture of larger quantities of product candidates for clinical development and potentially commercialization;
- maintain, expand and protect our intellectual property portfolio;
- hire and retain additional personnel, including clinical, quality control and scientific personnel;
- add operational, financial and management information systems and personnel, including personnel to support our product development and help us continue to comply with our obligations as a public company; and
- add equipment and physical infrastructure to support our research and development programs.

We expect that our existing cash, cash equivalents and marketable securities as of September 30, 2017 will enable us to fund our operating expenses and capital expenditure requirements through the end of 2019. However, we anticipate that our existing cash, cash equivalents and marketable securities will not be sufficient to fund additional development of inarigivir beyond our Phase 2 ACHIEVE clinical trial in patients with chronic HBV. We have based this estimate on assumptions that may prove to be wrong, and we may use our available capital resources sooner than we currently expect. Because of the numerous risks and uncertainties associated with the development of inarigivir and SB 11285, we are unable to estimate the amounts of increased capital outlays and operating expenses associated with completing the research and development of our product candidates. Our future capital requirements both near and long-term, will depend on many factors, including, but not limited to:

- initiation, progress, timing, costs and results of preclinical studies and clinical trials of inarigivir, including Part A of our Phase 2 ACHIEVE clinical trial in patients with chronic HBV;
- initiation, progress, timing, costs and results of preclinical studies of SB 11285;
- initiation, progress, timing, costs and results of preclinical studies and clinical trials of our other product candidates;
- our obligation to make royalty and non-royalty sublicense payments to third-party licensors, if any, under our licensing agreements;
- the timing, receipt, and amount of milestone payments or royalties, if any, from inarigivir, SB 11285, or any of our other product candidates;

- the number and characteristics of product candidates that we discover or in-license and develop;
- the outcome, timing and cost of seeking regulatory review by the FDA and comparable foreign regulatory authorities, including the potential for the FDA or comparable foreign regulatory authorities to require that we perform more studies than those that we currently expect;
- the costs of filing, prosecuting, defending and enforcing any patent claims and maintaining and enforcing other intellectual property rights;
- subject to receipt of marketing approval, revenue, if any, received from commercial sales of inarigivir and any other products;
- the costs and timing of the implementation of commercial-scale manufacturing activities;
- the costs and timing of establishing sales, marketing and distribution capabilities for any product candidates for which we may receive regulatory approval; and
- the costs of operating as a public company.

Identifying potential product candidates and conducting preclinical testing and clinical trials is a time-consuming, expensive and uncertain process that takes years to complete, and we may never generate the necessary data or results required to obtain marketing approval and achieve product sales. In addition, our product candidates, if approved, may not achieve commercial success. Our commercial revenues, if any, will be derived from sales of products that we do not expect to be commercially available for many years, if ever. Accordingly, we will need to obtain substantial additional funds to achieve our business objectives.

Adequate additional funds may not be available to us on acceptable terms, or at all. We do not currently have any committed external source of funds. We have an effective shelf registration statement on Form S-3 (File No. 333-218399), which we refer to as the Registration Statement. In August 2017, we entered into the Sales Agreement with Cantor pursuant to which we may offer and sell, from time to time through Cantor, shares of our common stock having an aggregate offering price of up to $50.0 million. Shares sold under the Sales Agreement will be offered and sold pursuant to the Registration Statement and a prospectus supplement and accompanying base prospectus that we filed with the SEC on August 18, 2017. As of September 30, 2017, we had up to $107.5 million in securities available for future issuance under the Registration Statement, which includes $50.0 million in shares issuable pursuant to the Sales Agreement with Cantor. 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 of these securities may include liquidation or other preferences that adversely affect the rights of our common stockholders. Additional debt financing and equity financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends and may require the issuance of warrants, which could potentially dilute the ownership interests of our stockholders.

If we raise additional funds through collaborations, strategic alliances or licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies, future revenue streams, research programs, or product candidates or grant licenses on terms that may not be favorable to us. If we are unable to raise additional funds through equity or debt financings when needed, we may be required to delay, limit, reduce or terminate our product development programs or any future commercialization efforts or grant rights to develop and market product candidates that we would otherwise prefer to develop and market ourselves.

Contractual Obligations and Commitments

The following table summarizes our contractual obligations at September 30, 2017, and the effect such obligations are expected to have on our liquidity and cash flow in future periods (in thousands):

	Payments Due by Period				
	Total	Less Than 1 Year	1 – 3 Years	3 – 5 Years	More than 5 Years
Operating lease commitments	$ 624	$ 194	$ 430	$ 0	$ —
Total	$ 624	$ 194	$ 430	$ 0	$ —

In addition to the amounts shown in the above table, we have contractual obligations pursuant to our amended and restated license agreement with BioHEP. Under this agreement, we have agreed to pay up to $3.5 million in development and regulatory milestone payments to BioHEP for each distinct viral indication for which we develop licensed product(s). BioHEP is also eligible to

receive tiered royalties in the low-to-mid single-digits on net product sales of licensed products by us and our affiliates and sub licensees, and a specified share of non-royalty sublicensing revenues we and our affiliates receive from sub licensees, which share of sublicensing revenues is capped at a maximum aggregate of $2.0 million under all such sublicenses. Milestone and royalty payments associated with our amended and restated license agreement with BioHEP have not been included in the above table of contractual obligations as we cannot reasonably estimate if or when they will occur.

On October 4, 2017, we entered into a New Lease. The premises covered by the New Lease will serve as our new principal office and laboratory space. The initial term of the New Lease is 125 months beginning on the date on which the landlord substantially completes certain renovations to the premises covered by the New Lease, which we expect to occur in approximately April 2018. Following an eleven-month rent abatement period, we will be obligated to make monthly rent payments in the amount of $34,533, which is subject to increase by approximately 3% annually for the first five years of the New Lease and by approximately 2.5% annually thereafter. The total lease payments due during the term of the lease are approximately $4.4 million. In addition, we are responsible under the New Lease for specified costs and charges, including certain operating expenses, utilities, taxes and insurance.

We enter into contracts in the normal course of business with third party service providers for clinical trials, preclinical research studies and testing, manufacturing and other services and products for operating purposes. We have not included our payment obligations under these contracts in the table as these contracts generally provide for termination upon notice, and therefore we believe that our non-cancelable obligations under these agreements are not material. We could also enter into additional research, manufacturing, supplier and other agreements in the future, which may require up-front payments and even long-term commitments of cash.

Off-Balance Sheet Arrangements

We did not have during the periods presented, and we do not currently have, any off-balance sheet arrangements, as defined in the rules and regulations of the SEC.

Recently Issued Accounting Pronouncements

In November 2016, the Financial Accounting Standards Board, or FASB, issued Accounting Standards Update, or ASU, No. 2016-18, *Statement of Cash Flows (Topic 230): Restricted Cash*, which includes provisions intended to clarify how entities present restricted cash and restricted cash equivalents in the statement of cash flows. Companies must show the change in total cash, cash equivalents, restricted cash and restricted cash equivalents in the statement of cash flows. The new standard is applied retrospectively and is effective for our annual periods beginning after December 15, 2017, and for interim periods within those annual periods, with early adoption permitted. We elected early adoption of this standard as of September 30, 2017, the first period in which we had restricted cash. The adoption of this standard has resulted in the presentation of the change in cash, cash equivalents and restricted cash on the statement of cash flows in the periods presented.

In March 2016, the FASB issued ASU 2016-09, *Compensation – Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting* ("ASU 2016-09") to require changes to several areas of employee stock-based compensation payment accounting in an effort to simplify stock-based compensation reporting. The update revises requirements in the following areas: minimum statutory withholding, accounting for income taxes, forfeitures, and intrinsic value accounting for private entities. ASU 2016-09 is effective for our annual reporting periods beginning after December 15, 2016, including interim reporting periods within each annual reporting period. We adopted this standard on January 1, 2017. The update revises our requirements in the following areas: minimum statutory withholding, accounting for income taxes, and forfeitures. Prior to adoption, we applied a 0% forfeiture rate to stock-based compensation, resulting in no cumulative effect adjustment to the opening period. Upon adoption of this standard, our accounting policy is to recognize forfeitures as they occur.

The update requires us to recognize the income tax effect of awards in the income statement when the awards vest or are settled. It also allows us to repurchase more of an employee's shares than we could prior to the update for tax withholding purposes without triggering a liability. The income tax related items had no effect on the current period presentation and we maintain a full valuation allowance against our deferred tax assets.

In May 2014, the FASB issued ASU 2014-09, *Revenue from Contracts with Customers* (Topic 606), or ASC 606, which amends the guidance for revenue recognition to replace numerous industry-specific requirements. ASC 606 implements a five-step process for customer contract revenue recognition that focuses on transfer of control, as opposed to transfer of risk and rewards. ASC 606 also requires enhanced disclosures regarding the nature, amount, timing, and uncertainty of revenues and cash flows from contracts with customers. Other major provisions include ensuring the time value of money is considered in the transaction price, and allowing estimates of variable consideration to be recognized before contingencies are resolved in certain circumstances. The amendments in ASC 606 are effective for reporting periods beginning after December 15, 2016, and early adoption is not permitted. In July 2015, FASB approved the deferral of adoption by one year. Entities can transition to the standard either retrospectively or as a cumulative-effect adjustment as of the date of adoption. Until we expect material revenue to be recognized, the adoption of this standard is not expected to have an impact on our consolidated financial statements.

In January 2016, the FASB issued ASU 2016-01, *Recognition and Measurement of Financial Assets and Financial Liabilities*, which amends Accounting Standards Codification, or ASC, Subtopic 825-10, *Financial Instruments - Overall*, and includes updates on certain aspects of recognition, measurement, presentation and disclosure of financial instruments and applies to all entities that hold financial assets or owe financial liabilities. The new standard is effective for our annual period beginning after December 15, 2017, with early adoption permitted. We are currently evaluating the impact that the adoption of this standard may have on our consolidated financial statements.

In February 2016, the FASB issued ASU 2016-02, *Leases (Topic 842)*, which supersedes the current leasing guidance and upon adoption, will require lessees to recognize right-of-use assets and lease liabilities on the balance sheet for all leases with terms longer than 12 months. The new standard is effective for our annual period beginning after December 15, 2018, and can be early adopted by applying a modified retrospective approach for leases existing at, and entered into after, the beginning of the earliest comparable period presented in the financial statements. We are currently evaluating the impact that the adoption of this standard may have on our consolidated financial statements.

In September 2016, the FASB issued ASU 2016-15, *Classification of Certain Cash Receipts and Cash Payments*, which amends ASC Topic 230, *Statement of Cash Flows*, and includes provisions intended to reduce diversity in practice and provides guidance on eight specific statements of cash flows classification issues. The new standard is effective for our annual period ending after December 15, 2017, and for annual and interim periods thereafter, with early adoption permitted. We are currently evaluating the impact that the adoption of this standard may have on our consolidated financial statements.

In July 2017, the FASB issued ASU 2017-11, *Earnings Per Share (Topic 260), Distinguishing Liabilities from Equity (Topic 480), Derivatives and Hedging (Topic 815): I. Accounting for Certain Financial Instruments with Down Round Features and II. Replacement of the Indefinite Deferral for Mandatorily Redeemable Financial Instruments of Certain Nonpublic Entities and Certain Mandatorily Redeemable Noncontrolling Interests with a Scope Exception.* Part I applies to entities that issue financial instruments such as warrants, convertible debt or convertible preferred stock that contain down round features. Part II simply replaces the indefinite deferral for certain mandatorily redeemable noncontrolling interests and mandatorily redeemable financial instruments of nonpublic entities contained within Accounting Standards Codification (ASC) Topic 480 with a scope exception and does not impact the accounting for these mandatorily redeemable instruments. This ASU is effective for public companies for the annual reporting periods beginning after December 15, 2018, and interim periods within those annual periods. Early adoption is permitted. We are currently evaluating the impact that the adoption of this standard may have on our consolidated financial statements

Other accounting standards that have been issued or proposed by the FASB or other standards-setting bodies that do not require adoption until a future date are not expected to have a material impact on our consolidated financial statements upon adoption.

Item 3. Quantitative and Qualitative Disclosures About Market Risk.

We are exposed to market risk related to changes in interest rates. Our cash, cash equivalents and marketable securities of $52.2 million as of September 30, 2017, consisted of cash, money market accounts and short-term marketable debt securities. Our primary exposure to market risk is interest income sensitivity, which is affected by changes in the general level of U.S. interest rates. However, because of the short-term nature of the instruments in our portfolio, an immediate 10% change in market interest rates would not be expected to have a material impact on the fair market value of our investment portfolio or on our financial condition or results of operations.

Item 4. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our principal executive officer and our principal financial officer, evaluated, as of the end of the period covered by this Quarterly Report on Form 10-Q, the effectiveness of our disclosure controls and procedures. Based on that evaluation of our disclosure controls and procedures as of September 30, 2017, our principal executive officer and principal financial officer concluded that our disclosure controls and procedures as of such date are effective at the reasonable assurance level. The term "disclosure controls and procedures," as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act, of 1934, as amended, or 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 are 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 us in the reports we file or submit under the Exchange Act is accumulated and communicated to our management, including our principal executive officer and principal financial and accounting officer, 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 our management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures.

Inherent Limitations of Internal Controls

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation. Projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) during the quarter ended September 30, 2017, that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II—OTHER INFORMATION

Item 1. Legal Proceedings.

From time to time, we may become involved in legal proceedings arising in the ordinary course of our business. We are not presently a party to any material litigation.

Item 1A. Risk Factors.

There have been no material changes in or additions to the risk factors included in our Annual Report on Form 10-K for the year ended December 31, 2016 and our Quarterly Report on Form 10-Q for the quarter ended June 30, 2017.

Item 5. Other Information.

On October 26, 2017, our Board of Directors, or Board, elected Christiana Bardon, M.D., to the Board as a class II director with a term expiring at the 2020 annual meeting of stockholders. The Board also appointed Dr. Bardon to the Compensation Committee of the Board.

In accordance with our current non-employee director compensation policy, Dr. Bardon will receive a $35,000 annual cash retainer for service on the Board and a $5,000 annual cash retainer for service on the Compensation Committee. These cash retainers are payable quarterly in arrears. The non-employee director compensation policy includes a stock-for-fees policy, under which Dr. Bardon has elected to receive shares of our common stock in lieu of cash fees.

In addition, in accordance with the non-employee director compensation policy, Dr. Bardon received an option to purchase 11,000 shares of common stock upon her election to the Board, at an exercise price of $15.17, the closing share price of the common stock on the NASDAQ Capital Market on October 26, 2017. This option becomes exercisable on a monthly basis over the course of three years, subject to Dr. Bardon's continued service as a director and, in the event of a change in control of the company, the vesting schedule of the option will accelerate in full. Dr. Bardon is also entitled to receive an option to purchase 5,500 shares of common stock on the date of each annual meeting of stockholders with an exercise price equal to the closing share price of the common stock on the NASDAQ Stock Market on the date of grant. Such option shall vest in 12 equal monthly installments while Dr. Bardon is serving as a director and, in the event of a change in control of the company, the vesting schedule of the option will accelerate in full.

Also, in connection with her election to the Board, we and Dr. Bardon entered into an indemnification agreement. The indemnification agreement is substantially the same as the form of indemnification agreement that we have entered into with our other directors, a copy of which was filed as Exhibit 10.1 to our Registration Statement on Form S-1 (File No. 333-208875) filed with the SEC on January 5, 2016 and is hereby incorporated by reference. The indemnification agreement provides that we will indemnify Dr. Bardon for certain expenses, including attorneys' fees, judgments, fines and settlement amounts incurred by her in any action or proceeding arising out of her service as a director.

In November 2016, we entered into a definitive agreement with respect to the private placement of 1,644,737 shares of common stock and warrants to purchase 1,644,737 shares of our common stock to a group of accredited investors. All investors paid $9.12 for each share of common stock and warrant to purchase one share of common stock. The warrants are currently exercisable at an exercise price of $10.79 per share. Burrage Capital Healthcare Fund I, L.P. ("Burrage Capital"), of which Dr. Bardon serves as the Portfolio Manager, purchased 54,824 shares of common stock and warrants to purchase 54,824 shares of common stock in the private placement. UBS Oncology Impact Fund L.P. ("Oncology Impact Fund") purchased 603,070 shares of common stock and warrants to purchase 603,070 shares of common stock in the private placement. Dr. Bardon's spouse, Ansbert Gadicke, M.D., serves as the Managing Member of MPM Oncology Impact Management GP LLC, an indirect General Partner of Oncology Impact Fund. Additionally, in June 2017, we completed a public offering of 3,269,219 shares of our common stock at $13.00 per share. Oncology Impact Fund purchased 230,769 shares of common stock at the public offering price in this public offering. Dr. Bardon may be deemed to have a beneficial ownership interest in the shares purchased by the entities identified above.

There are no arrangements or understandings between Dr. Bardon and any other person pursuant to which Dr. Bardon was elected as a director.

Item 6. Exhibits.

The exhibits filed as part of this Quarterly Report on Form 10-Q are set forth on the Exhibit Index immediately below.

EXHIBIT INDEX

Exhibit Number	Description
10.1	Controlled Equity Offering℠ Sales Agreement, dated as of August 18, 2017, by and between Spring Bank Pharmaceuticals, Inc. and Cantor Fitzgerald & Co. (incorporated by reference to Exhibit 10.1 to Spring Bank Pharmaceuticals, Inc.'s Current Report on Form 8-K filed on August 18, 2017).
31.1	Certification of Principal Executive Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of Principal Financial Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification of Principal Executive Officer and Principal 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

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.

Spring Bank Pharmaceuticals, Inc.

Date: October 31, 2017

By: /s/ Jonathan Freve
Jonathan Freve
Chief Financial Officer and Treasurer
(Principal Financial and Accounting Officer)

Exhibit 31.1

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

I, Martin Driscoll, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Spring Bank 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(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) 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 small business issuer, 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) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (c) 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 small business issuer's internal control over financial reporting; and

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

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

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

Date: October 31, 2017

By: /s/ Martin Driscoll
Martin Driscoll
Chief Executive Officer and President
(Principal Executive Officer)

Exhibit 31.2

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

I, Jonathan Freve, certify that:

1. I have reviewed this Quarterly Report on 10-Q of Spring Bank 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(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) 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) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

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

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

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

Date: October 31, 2017

By: /s/ Jonathan Freve
Jonathan Freve
Chief Financial Officer and Treasurer
(Principal Financial and Accounting Officer)

Exhibit 32.1

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

In connection with the Quarterly Report of Spring Bank Pharmaceuticals, Inc. (the "Company") on Form 10-Q for the period ending September 30, 2017 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), each of the undersigned certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that to the best of his knowledge:

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

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

Date: October 31, 2017

By: /s/ Martin Driscoll
Martin Driscoll
Chief Executive Officer
(Principal Executive Officer)

Date: October 31, 2017

By: /s/ Jonathan Freve
Jonathan Freve
Chief Financial Officer and Treasurer
(Principal Financial and Accounting Officer)

This certification accompanies the Form 10-Q 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 Spring Bank Pharmaceuticals, Inc. 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.