Bellerophon Therapeutics, Inc.
Form 10-Q
May 10, 2018

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM 10-Q

(Mark One)

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

For the quarterly period ended March 31, 2018
or
o TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from to
Commission File Number 001-36845
Bellerophon Therapeutics, Inc.
(Exact name of registrant as specified in its charter)

Delaware	47-3116175
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
184 Liberty Corner Road, Suite 302 Warren, New Jersey (Address of principal executive offices)	07059 (Zip Code)

(908) 574-4770
(Registrant's telephone number, including area code)

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

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 ý No o

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

Large accelerated filer	o	Accelerated filer	o
Non-accelerated filer	o (Do not check if a smaller reporting company)	Smaller reporting company	ý
		Emerging growth company	ý

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

13(a) of the Exchange Act. ý

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

The number of shares outstanding of the registrant's common stock as of May 9, 2018: 57,468,175

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REFERENCES TO BELLEROPHON

In this Quarterly Report on Form 10-Q, unless otherwise stated or the context otherwise requires references to the "Company," "Bellerophon," "we," "us" and "our" refer to Bellerophon Therapeutics, Inc. and its consolidated subsidiaries.

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 future results of operations and financial position, business strategy and plans and objectives of management for future operations, are forward-looking statements. The words "may," "will," "should," "expects," "plans," "anticipates," "could," "intends," "target," "projects," "contemplates," "believes," "estimates," "p "potential" or "continue" or the negative of these terms or other similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words.

The forward-looking statements in this Quarterly Report on Form 10-Q include, among other things, statements about:

- the timing of the ongoing and expected clinical trials of our product candidates, including statements regarding the timing of completion of the trials and the respective periods during which the results of the trials will become available;
- our ability to obtain adequate financing to meet our future operational and capital needs;
- the timing of and our ability to obtain marketing approval of our product candidates, and the ability of our product candidates to meet existing or future regulatory standards;
- our ability to comply with government laws and regulations;
- our commercialization, marketing and manufacturing capabilities and strategy;
- our estimates regarding the potential market opportunity for our product candidates;
- the timing of or our ability to enter into partnerships to market and commercialize our product candidates;
- the rate and degree of market acceptance of any product candidate for which we receive marketing approval;
- our intellectual property position;
- our estimates regarding expenses, future revenues, capital requirements and needs for additional funding;
- the success of competing treatments;
- our competitive position; and
- our expectations regarding the time during which we will be an "emerging growth company" under the Jumpstart Our Business Startups Act of 2012.

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. We have included important factors in the cautionary statements included in this Quarterly Report on Form 10-Q and in our Annual Report on Form 10-K for the year ended December 31, 2017, particularly in the "Risk Factors" section, that could cause actual results or events to differ materially from the forward-looking statements that we make. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures or investments we may make.

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. We do not assume any obligation to update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by applicable law.

This Quarterly Report on Form 10-Q includes statistical and other industry and market data that we obtained from industry publications and research, surveys and studies conducted by third parties. Industry publications and third-party research, surveys and studies generally indicate that their information has been obtained from sources believed to be reliable, although they do not guarantee the accuracy or completeness of such information.

PART I. FINANCIAL INFORMATION

Item 1. Financial Statements.

BELLEROPHON THERAPEUTICS, INC.
CONDENSED CONSOLIDATED BALANCE SHEETS
(in thousands except share and per share data)

	As of March 31, 2018 (Unaudited)	As of December 31, 2017
Assets		
Current assets:		
Cash and cash equivalents	$ 28,350	$ 28,823
Restricted cash	403	402
Marketable securities	2,994	2,996
Prepaid expenses and other current assets	3,016	3,359
Total current assets	34,763	35,580
Restricted cash, non-current	150	150
Other non-current assets	40	54
Property and equipment, net	935	1,026
Total assets	$ 35,888	$ 36,810
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	$ 4,593	$ 3,853
Accrued research and development	2,987	1,785
Accrued expenses	816	1,441
Total current liabilities	8,396	7,079
Common stock warrant liability	25,275	32,325
Total liabilities	33,671	39,404
Commitments and contingencies		
Stockholders' equity:		
Common stock, $0.01 par value per share; 125,000,000 shares authorized, 57,369,165 and 56,899,353 shares issued and outstanding at March 31, 2018 and December 31, 2017, respectively, 289,269 shares paid for and to be issued at December 31, 2017	574	569
Preferred stock, $0.01 par value per share; 5,000,000 shares authorized, zero shares issued and outstanding at March 31, 2018 and December 31, 2017	—	—
Additional paid-in capital	176,862	176,151
Accumulated other comprehensive loss	(5)	(4)
Accumulated deficit	(175,214)	(179,310)
Total stockholders' equity	2,217	(2,594)
Total liabilities and stockholders' equity	$ 35,888	$ 36,810

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

BELLEROPHON THERAPEUTICS, INC.

CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS (UNAUDITED)
(in thousands except share and per share data)

	Three Months Ended March 31,	
	2018	2017
Operating expenses:		
Research and development	$6,380	$3,337
General and administrative	2,112	1,446
Total operating expenses	8,492	4,783
Loss from operations	(8,492)	(4,783)
Change in fair value of common stock warrant liability	7,050	(14,387)
Interest and other income, net	99	27
Pre-tax loss	(1,343)	(19,143)
Income tax benefit	5,439	—
Net income (loss)	$4,096	$(19,143)
Weighted average shares outstanding:		
Basic	57,059,686	31,934,253
Diluted	72,100,690	31,934,253
Net income (loss) per share:		
Basic	$0.07	$(0.60)
Diluted	$(0.04)	$(0.60)

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

BELLEROPHON THERAPEUTICS, INC.

CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS) (UNAUDITED)
(in thousands)

	Three Months Ended March 31,	
	2018	2017
Net income (loss)	$4,096	$(19,143)
Other comprehensive income		
Unrealized losses on available-for-sale marketable securities	(1)	—
Total other comprehensive loss	(1)	—
Comprehensive income (loss)	$4,095	$(19,143)

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

BELLEROPHON THERAPEUTICS, INC.
CONDENSED CONSOLIDATED STATEMENT OF CHANGES IN STOCKHOLDERS' EQUITY (UNAUDITED)
(in thousands except share data)

	Common Stock		Additional	Accumulated Other Comprehensive	Accumulated	Total Stockholders'
	Shares	Amount	Paid in Capital	Loss	Deficit	Equity
December 31, 2017	56,899,353	$ 569	$ 176,151	$ (4)	$ (179,310)	$ (2,594)
Net income	—	—	—	—	4,096	4,096
Other comprehensive loss	—	—	—	(1)	—	(1)
Warrant exercises	289,269	3	(3)	—	—	—
Stock-based compensation	180,543	2	714	—	—	716
March 31, 2018	57,369,165	$ 574	$ 176,862	$ (5)	$ (175,214)	$ 2,217

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

BELLEROPHON THERAPEUTICS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS (UNAUDITED)
(in thousands)

	Three Months Ended March 31,	
	2018	2017
Cash flows from operating activities:		
Net income (loss)	$4,096	$(19,143)
Adjustments to reconcile net income (loss) to net cash used in operating activities:		
Change in fair value of common stock warrant liability	(7,050)	14,387
Accretion and amortization of discounts and premiums on marketable securities, net	1	—
Stock based compensation	716	729
Depreciation	91	99
Changes in operating assets and liabilities:		
Prepaid expenses and other current assets	343	(111)
Other non-current assets	14	582
Accounts payable, accrued research and development, and accrued expenses	1,345	(200)
Net cash used in operating activities	(444)	(3,657)
Cash flows from investing activities:		
Proceeds from sale of marketable securities	—	2,458
Net cash provided by investing activities	—	2,458
Cash flows from financing activities:		
Payment of offering expenses related to the PIPE offering	(28)	—
Proceeds received from exercise of warrants	—	520
Payment of offering expenses related to the secondary offering	—	(235)
Net cash (used in) provided by financing activities	(28)	285
Net change in cash, cash equivalents and restricted cash	(472)	(914)
Cash, cash equivalents and restricted cash at beginning of period	29,375	14,910
Cash, cash equivalents and restricted cash at end of period	$28,903	$13,996
Non-cash financing activities:		
Conversion of warrant liability to common stock upon exercise of warrants	$—	$702

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

BELLEROPHON THERAPEUTICS, INC.
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)

(1) Organization and Nature of the Business

Bellerophon Therapeutics, Inc., or the Company, is a clinical-stage therapeutics company focused on developing innovative products at the intersection of drugs and devices that address significant unmet medical needs in the treatment of cardiopulmonary diseases. The focus of the Company's clinical program is the continued development of its nitric oxide therapy for patients with pulmonary hypertension, or PH, using its proprietary delivery system, INOpulse, with pulmonary arterial hypertension, or PAH, representing the lead indication. The Company has three wholly-owned subsidiaries: Bellerophon BCM LLC, a Delaware limited liability company; Bellerophon Pulse Technologies LLC, a Delaware limited liability company; and Bellerophon Services, Inc., a Delaware corporation.

The Company's business is subject to significant risks and uncertainties, including but not limited to:

- The risk that the Company will not achieve success in its research and development efforts, including clinical trials conducted by it or its potential collaborative partners.
- The expectation that the Company will experience operating losses for the next several years.
- Decisions by regulatory authorities regarding whether and when to approve the Company's regulatory applications as well as their decisions regarding labeling and other matters which could affect the commercial potential of the Company's products or product candidates.
- The risk that the Company will fail to obtain adequate financing to meet its future operational and capital needs.
- The risk that the Company will be unable to obtain additional funds on a timely basis and hence there will be substantial doubt about its ability to continue as a going concern.
- The risk that key personnel will leave the Company and/or that the Company will be unable to recruit and retain senior level officers to manage its business.

(2) Summary of Significant Accounting Policies

(a) Basis of Presentation

The accompanying unaudited condensed consolidated financial statements were prepared following the requirements of the Securities and Exchange Commission, or the SEC, for interim reporting. As permitted under those rules, certain footnotes or other financial information that are normally required by accounting principles generally accepted in the United States of America, or U.S. GAAP, can be condensed or omitted. The Company operates in one reportable segment and solely within the United States. Accordingly, no segment or geographic information has been presented.

The Company is responsible for the unaudited condensed consolidated financial statements. The condensed consolidated financial statements include all normal and recurring adjustments that are considered necessary for the fair presentation of the Company's financial position, results of operations, comprehensive income (loss) and its cash flows for the periods presented. These condensed consolidated financial statements should be read in conjunction with the Company's audited consolidated financial statements for the year ended December 31, 2017, included in the Company's Annual Report on Form 10-K for the year ended December 31, 2017. The results of operations for the three months ended March 31, 2018 for the Company are not necessarily indicative of the results expected for the full

year.

The preparation of financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of costs and expenses during the reporting period, including accrued expenses, accrued research and development expenses, stock-based compensation, common stock warrant liabilities and income taxes. Actual results could differ from those estimates.

(b) Cash and Cash Equivalents

The Company considers all highly liquid investments with an original maturity date of three months or less to be cash equivalents. All investments with maturities of greater than three months from date of purchase are classified as available-for-sale marketable securities.

(c) Stock-Based Compensation

The Company accounts for its stock-based compensation in accordance with applicable accounting guidance which establishes accounting for share-based awards, including stock options and restricted stock, exchanged for services and requires companies to expense the estimated fair value of these awards over the requisite service period. The Company recognizes stock-based compensation expense in operations based on the fair value of the award on the date of the grant. The resulting compensation expense, less estimated forfeitures, is recognized on a straight-line basis over the requisite service period or sooner if the awards immediately vest. The Company determines the fair value of stock options issued using a Black-Scholes-Merton option pricing model. Certain assumptions used in the model include expected volatility, dividend yield, risk-free interest rate, and expected term. For restricted stock, the fair value is the closing market price per share on the grant date. See Note 7 - Stock-Based Compensation for a description of these assumptions.

(d) Common Stock Warrants and Warrant Liability
The Company accounts for common stock warrants issued as freestanding instruments in accordance with applicable accounting guidance as either liabilities or as equity instruments depending on the specific terms of the warrant agreement. The Company classifies warrant liabilities on the consolidated balance sheet based on the warrants' terms as long-term liabilities, which are revalued at each balance sheet date subsequent to the initial issuance. Changes in the fair value of the warrants are reflected in the consolidated statement of operations as “Change in fair value of common stock warrant liability.” The Company uses the Black-Scholes-Merton pricing model to value the related warrant liability. Certain assumptions used in the model include expected volatility, dividend yield and risk-free interest rate. See Note 6 - Fair Value Measurements for a description of these assumptions.

(e) Income Taxes

The Company uses the asset and liability approach to account for income taxes as required by applicable accounting guidance, which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Valuation allowances are provided when necessary to reduce deferred tax assets to the amount expected to be realized, on a more likely than not basis. The Company recognizes the benefit of an uncertain tax position that it has taken or expects to take on income tax returns it files if such tax position is more likely than not to be sustained on examination by the taxing authorities, based on the technical merits of the position. These tax benefits are measured based on the largest benefit that has a greater than 50% likelihood of being realized upon ultimate resolution.

(f) Marketable Securities

Unrealized gains and losses are reported as accumulated other comprehensive (loss) income, except for losses from impairments which are determined to be other-than-temporary. Realized gains and losses, and declines in value judged to be other-than-temporary on available-for-sale securities are included in the determination of net loss and are included in interest and other income, net, at which time the average cost basis of these securities are adjusted to fair

value. Fair values are based on quoted market prices at the reporting date. Interest on available-for-sale securities is included in interest and other income, net.

(g) Research and Development Expense

Research and development costs are expensed as incurred. These expenses include the costs of the Company's proprietary research and development efforts, as well as costs incurred in connection with certain licensing arrangements.

Upfront and milestone payments made to third parties in connection with research and development collaborations are expensed as incurred up to the point of regulatory approval. Payments made to third parties upon or subsequent to regulatory approval are capitalized and amortized over the remaining useful life of the related product. The Company also expenses the cost of purchased technology and equipment in the period of purchase if it believes that the technology or equipment has not demonstrated technological feasibility and it does not have an alternative future use. Nonrefundable advance payments for goods or services that will be used or rendered for future research and development activities are deferred and are recognized as research and development expense as the related goods are delivered or the related services are performed.

(i) Recently Issued Accounting Pronouncements

Adopted

In January 2016, the FASB issued ASU 2016-01, "Financial Instruments - Overall - Recognition and Measurement of Financial Assets and Financial Liabilities," which addresses certain aspects of recognition, measurement, presentation, and disclosure of financial instruments. The Company adopted ASU 2016-01 during the quarter ended March 31, 2018. The adoption of this standard did not have an impact on the Company's financial statements.

In August 2016, the FASB issued ASU 2016-15, “Statement of Cash Flows: Clarification of Certain Cash Receipts and Cash Payments”, which eliminates the diversity in practice related to the classification of certain cash receipts and payments in the statement of cash flows, by adding or clarifying guidance on eight specific cash flow issues. ASU 2016-15 provides for retrospective application for all periods presented. The Company adopted ASU 2016-15 during the quarter ended March 31, 2018. The adoption of this standard did not have an impact on the Company's financial statements.

In November 2016, the FASB issued ASU 2016-18 "Statement of Cash Flows: Restricted Cash", which eliminates the diversity in practice related to the inclusion of restricted cash in the statement of cash flows by requiring that a statement of cash flows include the change during the period in restricted cash when reconciling beginning-of-period and end-of-period total amounts shown on the statement of cash flows. The Company retrospectively adopted ASU 2016-18 during the quarter ended March 31, 2018 by including restricted cash with cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on the statement of cash flows.

Not Yet Adopted

In February 2016, the FASB issued ASU 2016-02, "Leases," which is intended to improve financial reporting about leasing transactions. This standard requires a lessee to record on the balance sheet the assets and liabilities for the rights and obligations created by lease terms of more than 12 months. This standard will be effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. The Company is assessing ASU 2016-02’s impact and will adopt it when effective.

(3) Liquidity

In the course of its development activities, the Company has sustained operating losses and expects such losses to continue over the next several years. The Company expects to continue to incur significant expenses and operating losses for the foreseeable future as it continues the development and clinical trials of, and seeks regulatory approval for, its product candidates. The Company's primary uses of capital are, and it expects will continue to be, compensation and related expenses, third-party clinical research and development services, contract manufacturing

services, laboratory and related supplies, clinical costs, legal and other regulatory expenses and general overhead costs.

The Company had cash and cash equivalents of $28.4 million and marketable securities of $3.0 million as of March 31, 2018.

The Company's existing cash and cash equivalents and marketable securities as of March 31, 2018 will be used primarily to fund the first of two INOpulse for PAH Phase 3 trials, a portion of the second of two INOpulse for PAH Phase 3 trials, and a Phase 2b trial of INOpulse for PH-ILD. In addition, as of March 31, 2018, the Company had $1.7 million prepayments of research and development expenses related to its amended drug supply agreement with Ikaria, Inc. (a subsidiary of Mallinckrodt plc), or Ikaria. The corresponding prepayments balance as of December 31, 2017 was $2.2 million.

On May 5, 2016, the Company filed a shelf registration statement with the SEC on Form S-3, which as amended became effective on May 23, 2016. The shelf registration allows the Company to issue, from time to time at prices and on terms to be determined prior to the time of any such offering, up to $30.0 million of any combination of the Company’s common stock, preferred stock, debt securities, warrants, rights, purchase contracts or units, either individually or in units. As of March 31, 2018, the Company had sold 1,025,793 shares of its common stock for gross and net proceeds of $2.2 million and $2.1 million, respectively, under the Company’s effective shelf registration statement on Form S-3 and the related prospectus supplement dated May 27, 2016 and filed with the SEC on May 27, 2016.

The Company evaluated whether there are any conditions and events, considered in the aggregate, that raise substantial doubt about its ability to continue as a going concern within one year beyond the filing of this Quarterly Report on Form 10-Q.

Based on such evaluation, management believes that the Company's existing cash and cash equivalents and marketable securities as of March 31, 2018 may not be sufficient to satisfy the Company's operating cash needs for at least one year after the filing of this Quarterly Report on Form 10-Q. These factors raise substantial doubt about the Company's ability to continue as a going concern. The Company continues to pursue potential sources of funding, including equity financing.

The Company’s estimates and assumptions may prove to be wrong, and the Company may exhaust its capital resources sooner than expected. The process of testing product candidates in clinical trials is costly, and the timing of progress in clinical trials is uncertain. Because the Company’s product candidates are in clinical development and the outcome of these efforts is uncertain, the Company may not be able to accurately estimate the actual amounts that will be necessary to successfully complete the development and commercialization, if approved, of its product candidates or whether, or when, the Company may achieve profitability.

Until such time, if ever, as the Company can generate substantial product revenues, it expects to finance its cash needs through a combination of equity and debt offerings, existing working capital and funding from potential future collaboration arrangements. To the extent that the Company raises additional capital through the future sale of equity or debt, the ownership interest of its existing stockholders will be diluted, and the terms of such securities may include liquidation or other preferences or rights such as anti-dilution rights that adversely affect the rights of the Company's existing stockholders. If the Company raises additional funds through strategic partnerships in the future, it may have to relinquish valuable rights to its technologies, future revenue streams or product candidates or grant licenses on terms that may not be favorable to it. If the Company is unable to raise additional funds through equity or debt financings when needed, it may be required to delay, limit, reduce or terminate its product development or future commercialization efforts or grant rights to develop and market product candidates that it would otherwise prefer to develop and market itself.

(4) Marketable Securities

The Company considers all of its investments to be available-for-sale. Marketable securities were as follows at March 31, 2018 and December 31, 2017 (in thousands):

	March 31, 2018			December 31, 2017		
	Amortized Cost	Gross Unrealized Losses	Fair Value	Amortized Cost	Gross Unrealized Losses	Fair Value
US Government bonds	2,999	(5)	2,994	3,000	(4)	2,996
Total	2,999	(5)	2,994	3,000	(4)	2,996

Maturities of marketable securities classified as available-for-sale were as follows at March 31, 2018 and December 31, 2017 (in thousands):

	March 31, 2018		December 31, 2017	
	Amortized Cost	Fair Value	Amortized Cost	Fair Value
Due within one year	2,999	2,994	3,000	2,996
Total	2,999	2,994	3,000	2,996

(5) Common Stock Warrants and Warrant Liability

On November 29, 2016, the Company issued warrants to purchase 17,142,858 shares that were immediately exercisable and will expire five years from issuance at an exercise price of $0.80 per share. As the warrants, under certain situations, could require cash settlement, the warrants are classified as liabilities and recorded at estimated fair value using a Black-Scholes-Merton pricing model. As of March 31, 2018, 13,981,004 of these warrants were outstanding.

On May 15, 2017, the Company issued to an investor a warrant to purchase 1,000,000 shares that became exercisable commencing six months from their issuance and will expire five years from the initial exercise date at an exercise price of $1.50 per share. In addition, the Company issued to the placement agent warrants to purchase 60,000 shares that were immediately exercisable and will expire five years from issuance at an exercise price of $1.875 per share. As the warrants, under certain situations, could require cash settlement, the warrants were classified as liabilities and recorded at estimated fair value using a Black-Scholes-Merton pricing model. As of March 31, 2018, all of these warrants were outstanding.

On September 29, 2017, the Company issued warrants to purchase 19,449,834 shares that became exercisable commencing six months from their issuance and will expire five years from the initial exercise date at an exercise price of $1.2420 per share. As the warrants could not require cash settlement, the warrants were classified as equity. As of March 31, 2018, all of these warrants were outstanding.

The following table summarizes warrant activity for the three months ended March 31, 2018 (fair value amount in thousands):

	Equity Classified	Liability Classified	
	Warrants	Warrants	Estimated Fair Value
Warrants outstanding as of December 31, 2017	19,449,834	15,041,004	$32,325
Change in fair value of common stock warrant liability recognized in consolidated statement of operations	—	—	(7,050)
Warrants outstanding as of March 31, 2018	19,449,834	15,041,004	$25,275

The following table summarizes warrant activity for the three months ended March 31, 2017 (fair value amount in thousands):

	Liability Classified	
	Warrants	Estimated Fair Value
Warrants outstanding as of December 31, 2016	17,142,858	$5,215

Exercises	(648,586)	(702)
Additions	—	—
Change in fair value of common stock warrant liability recognized in consolidated statement of operations	—	14,387
Warrants outstanding as of March 31, 2017	16,494,272	$18,900

See Note 6 for determination of the fair value of the common stock warrant liability.

(6) Fair Value Measurements

Assets and liabilities recorded at fair value on the balance sheets are categorized based upon the level of judgment associated with the inputs used to measure the fair value. Level inputs are as follows:

- Level 1 — Values are based on unadjusted quoted prices for identical assets or liabilities in an active market which the company has the ability to access at the measurement date.

- Level 2 — Values are based on quoted market prices in markets where trading occurs infrequently or whose values are based on quoted prices of instruments with similar attributes in active markets.

- Level 3 — Values are based on prices or valuation techniques that require inputs that are both unobservable and significant to the overall fair value measurement. These inputs reflect management's own assumptions about the assumptions a market participant would use in pricing the asset.

The following table summarizes fair value measurements by level at March 31, 2018 for assets and liabilities measured at fair value on a recurring basis (in thousands):

	Level 1	Level 2	Level 3	Total
Marketable securities	$ —	$2,994	$ —	$2,994
Common stock warrant liability	—	—	25,275	25,275

The following table summarizes fair value measurements by level at December 31, 2017 for assets and liabilities measured at fair value on a recurring basis (in thousands):

	Level 1	Level 2	Level 3	Total
Marketable securities	$ —	$2,996	$ —	$2,996
Common stock warrant liabilities	—	—	32,325	32,325

The Company uses a Black-Scholes-Merton option pricing model to value its liability classified common stock warrants. The significant unobservable inputs used in calculating the fair value of common stock warrants represent management's best estimates and involve inherent uncertainties and the application of management's judgment. For volatility, the Company uses comparable public companies as a basis for its expected volatility to calculate the fair value of common stock warrants due to its limited history as a public company. The risk-free interest rate is based on U.S. Treasury notes with a term approximating the expected term of the common stock warrant. Any significant changes in the inputs may result in significantly higher or lower fair value measurements.
The following are the weighted average assumptions used in estimating the fair value of warrants outstanding as of March 31, 2018 and December 31, 2017:

	March 31, 2018	December 31, 2017
Valuation assumptions:		
Risk-free interest rate	2.44 %	2.08 %
Expected volatility	98.97%	96.24 %

Expected term (in years)	3.7		4.0	
Dividend yield	—	%	—	%

(7) Stock-Based Compensation

Bellerophon 2015 and 2014 Equity Incentive Plans

During 2015, the Company adopted the 2015 Equity Incentive Plan, or the 2015 Plan, which provides for the grant of options, restricted stock and other forms of equity compensation. On May 4, 2017, the Company's stockholders approved an amendment to the 2015 Plan to increase the aggregate number of shares available for the grant of awards to 5,000,000 and to increase the maximum number of shares available under the annual increase to 3,000,000 shares. As of March 31, 2018, the Company had additional 3,373,968 shares available for grant.

As of March 31, 2018, there was approximately $2.9 million of total unrecognized compensation expense related to unvested stock awards. This expense is expected to be recognized over a weighted-average period of 2.7 years.

No tax benefit was recognized during the three months ended March 31, 2018 and 2017 related to stock-based compensation expense since the Company incurred operating losses and has established a full valuation allowance to offset all the potential tax benefits associated with its deferred tax assets.

Options

The weighted average grant-date fair value of options issued during the three months ended March 31, 2018 was $1.55. There were no options issued during the three months ended March 31, 2017. The following are the weighted average assumptions used in estimating the fair values of options issued during the three months ended March 31, 2018.

	Three Months Ended March 31, 2018
Valuation assumptions:	
Risk-free rate	2.43 %
Expected volatility	90.82 %
Expected term (years)	6.1
Dividend yield	—

A summary of option activity under the 2015 and 2014 Plans for the three months ended March 31, 2018 is presented below:

	Bellerophon 2015 and 2014 Equity Incentive Plans			
	Options	Range of Exercise Price	Weighted Average Price	Weighted Average Remaining Contractual Life (in years)
Options outstanding as of December 31, 2017	3,269,883	$0.49 - 13.28	$ 3.04	8.4
Granted	1,202,000	2.03 - 2.20	2.05	
Forfeited	(5,225)	0.49 - 4.12		