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

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**FORM 8-K**

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**CURRENT REPORT  
Pursuant to Section 13 or 15(d)  
of the Securities Exchange Act of 1934**

Date of Report (Date of earliest event reported): **November 9, 2018**

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**RHYTHM PHARMACEUTICALS, INC.**  
(Exact name of registrant as specified in its charter)

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**Delaware**  
(State or other jurisdiction  
of incorporation)

**001-38223**  
(Commission  
File Number)

**46-2159271**  
(IRS Employer  
Identification Number)

**500 Boylston Street, 11th Floor**  
**Boston, MA 02116**  
(Address of principal executive offices, including Zip Code)

Registrant's telephone number, including area code: **(857) 264-4280**

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter). 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 13(a) of the Exchange Act.

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## Item 8.01 Other Events.

As disclosed in the Registration Statement on Form S-1 (File No. 333-225700) filed by Rhythm Pharmaceuticals, Inc. (the “Company”) and declared effective by the U.S. Securities and Exchange Commission (the “SEC”) on June 20, 2018, the Company adopted, effective as of January 1, 2018, Accounting Standards Update (“ASU”) No. 2016-18, Statement of Cash Flows (Topic 230): Restricted Cash (“ASU 2016-18”). ASU 2016-18 changes the presentation of restricted cash and cash equivalents on the statement of cash flows and requires that restricted cash and restricted cash equivalents be included with cash and cash equivalents when reconciling the beginning of period and end of period total amounts shown on the statement of cash flows. This amendment is effective for fiscal years beginning after December 15, 2017, including interim periods within those fiscal years, and is applied using the retrospective transition method. The Company has applied the changes from ASU 2016-18 to the Company’s statements of cash flows for the years ended December 31, 2017, 2016 and 2015.

The Company is required in this Form 8-K to recast certain financial information included in its Annual Report on Form 10-K for the year ended December 31, 2017 (the “Form 10-K”), which predominately relates to the Company’s adoption of ASU 2016-18. Other than for these updates, no other substantive changes have been made to the Form 10-K, which should be read in conjunction with this Form 8-K.

This Form 8-K is being filed only for the purposes described above, and all other information in the Form 10-K remains unchanged. In order to preserve the nature and character of the disclosures set forth in the Form 10-K, the items included in Exhibit 99.1 of this Form 8-K have been updated solely for the matters described above. No attempt has been made in this Form 8-K to reflect events or occurrences after the date of the filing of the Form 10-K on March 12, 2018, and it should not be read to modify or update other disclosures as presented in the Form 10-K. As a result, this Form 8-K should be read in conjunction with the Form 10-K and the Company’s filings made with the SEC subsequent to the filing of the Form 10-K. References in the attached exhibits to the Form 10-K or parts thereof refer to the Form 10-K for the year ended December 31, 2017, filed on March 12, 2018, except to the extent portions of such Form 10-K have been revised in this Form 8-K, in which case they refer to the applicable revised portion in this Form 8-K.

## Item 9.01 Financial Statements and Exhibits.

### (d) Exhibits

<u>Exhibit No.</u>	<u>Description</u>
23.1	<a href="#">Consent of Ernst &amp; Young LLP.</a>
99.1	<a href="#">Revised Management’s Discussion and Analysis of Financial Condition and Results of Operations and Consolidated Financial Statements for the years ended December 31, 2017, 2016 and 2015.</a>
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, as amended, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

**RHYTHM PHARMACEUTICALS, INC.**

Date: November 9, 2018

By: /s/ Hunter Smith  
Hunter Smith  
Chief Financial Officer

## Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the following Registration Statements:

- (1) Registration Statement (Form S-8 No 333-220925) pertaining to the Rhythm Pharmaceuticals, Inc. 2017 Equity Incentive Plan and 2017 Employee Stock Purchase Plan, and
- (2) Registration Statement (Form S-8 No. 333-223647) pertaining to the Rhythm Pharmaceuticals, Inc. 2017 Equity Incentive Plan

of our report dated March 12, 2018, except for Note 12, as to which the date is June 11, 2018, with respect to the consolidated financial statements of Rhythm Pharmaceuticals, Inc. included in this Current Report on Form 8-K.

/s/ Ernst & Young LLP

Boston, Massachusetts  
November 9, 2018

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

The following discussion reflects the retrospective application of Accounting Standards Update (ASU) 2016-18, "Statement of Cash Flows (Topic 230): Restricted Cash" (ASU 2016-18), adopted on January 1, 2018. See Note 12 to the consolidated financial statements for additional information.

### Cash flows

The following table provides information regarding our cash flows for the years ended December 31, 2017, 2016, and 2015:

	Year Ended December 31,		
	2017	2016	2015
	(in thousands)		
Net cash provided by (used in):			
Operating activities	\$ (29,460)	\$ (23,219)	\$ (6,752)
Investing activities	(110,044)	(5,110)	(17)
Financing activities	167,200	—	41,711
Net increase (decrease) in cash, cash equivalents and restricted cash	<u>\$ 27,696</u>	<u>(28,329)</u>	<u>34,942</u>

### Net cash used in operating activities

The use of cash in all 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 \$29.5 million for the year ended December 31, 2017, and consisted primarily of a net loss of \$29.3 million adjusted for non-cash items, which were comprised of stock-based compensation, depreciation and amortization and the mark to market revaluation of the 2017 Series A Investor Instrument. The significant items in the change in operating assets and liabilities include an increase in accounts payable, accrued expenses and other current liabilities of \$1.9 million offset by an increase of approximately \$1.9 million in prepaid expenses and other current assets.

Net cash used in operating activities was \$23.2 million for the year ended December 31, 2016, and consisted primarily of a net loss of \$24.5 million adjusted for non-cash items, which consisted of stock-based compensation, depreciation and amortization and deferred rent expense. The significant items in the change in operating assets and liabilities include a decrease of \$1.5 million in deferred issuance costs offset by a decrease in deferred grant income of approximately \$0.3 million.

Net cash used in operating activities was \$7.0 million for the year ended December 31, 2015, and consisted primarily of a net loss of \$9.4 million adjusted for non-cash items, which were comprised of stock-based compensation, warrant amendment expense and mark to market revaluation of the 2015 Series A Investor Right/Obligation. The significant items in the change in operating assets and liabilities include an increase in accounts payable, accrued expenses and other current liabilities of \$4.7 million offset by an increase of approximately \$2.1 million in deferred issuance costs and prepaid expenses and other current assets.

***Net cash used in investing activities***

Net cash used in investing activities for the year ended December 31, 2017 relates to the net purchases of short-term investments of \$110.0 million.

Net cash used in investing activities for the year ended December 31, 2016 relates to the net purchases of short-term investments of \$4.1 million and the buildout of our offices and furniture and equipment of \$1.1 million.

Net cash used in investing activities for the year ended December 31, 2015 relates to our design costs incurred related to our new facility lease.

***Net cash provided by financing activities***

Net cash provided by financing activities was \$167.2 million for the year ended December 31, 2017, which represents the net proceeds of \$40.8 million from the 2017 issuance of series A preferred stock and the net proceeds of \$125.7 million from our IPO in October 2017.

Net cash provided by financing activities was \$41.7 million for the year ended December 31, 2015, consisting of \$39.6 million of net proceeds from the issuance of series A preferred stock and an equity contribution of \$2.1 million from the LLC entity.

## REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of Rhythm Pharmaceuticals, Inc.

### Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Rhythm Pharmaceuticals, Inc. (the Company) as of December 31, 2017 and 2016, the related consolidated statements of operations and comprehensive loss, convertible preferred stock and stockholders' equity (deficit) and cash flows for each of the three years in the period ended December 31, 2017, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2017 and 2016, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2017, in conformity with U.S. generally accepted accounting principles.

### Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 2015.

Boston, Massachusetts

March 12, 2018, except for Note 12, as to which the date is June 11, 2018

RHYTHM PHARMACEUTICALS, INC.

CONSOLIDATED BALANCE SHEETS

(in thousands, except share and per share data)

	December 31, 2017	December 31, 2016
<b>Assets</b>		
Current assets:		
Cash and cash equivalents	\$ 34,236	\$ 6,540
Short-term investments	113,846	3,997
Prepaid expenses and other current assets	2,589	638
Total current assets	150,671	11,175
Property, plant and equipment, net	840	930
Deferred issuance costs	—	9
Restricted cash	225	225
Total assets	<u>\$ 151,736</u>	<u>\$ 12,339</u>
<b>Liabilities, convertible preferred stock and stockholders' equity (deficit)</b>		
Current liabilities:		
Accounts payable	\$ 2,427	\$ 1,895
Due to related party	—	105
Deferred rent	83	76
Accrued expenses and other current liabilities	4,210	2,655
Total current liabilities	6,720	4,731
Long-term liabilities:		
Deferred rent	228	311
Total liabilities	6,948	5,042
Commitments and contingencies		
Preferred stock:		
Series A Convertible Preferred Stock, \$0.001 par value: 10,000,000 shares authorized; no shares issued and outstanding at December 31, 2017 and 40,000,000 shares issued and outstanding at December 31, 2016; (aggregate liquidation preference of \$0 and \$44,129 at December 31, 2017 and December 31, 2016 respectively)	—	40,000
Stockholders' equity (deficit):		
Common stock, \$0.001 par value: 120,000,000 shares authorized; 27,284,140 and 10,196,292 shares issued and outstanding and December 31, 2017 and December 31, 2016, respectively	27	10
Additional paid-in capital	255,013	43,830
Accumulated deficit	(110,252)	(76,543)
Total stockholders' equity (deficit)	144,788	(32,703)
Total liabilities, convertible preferred stock and stockholders' equity (deficit)	<u>\$ 151,736</u>	<u>\$ 12,339</u>

The accompanying notes are an integral part of these financial statements

RHYTHM PHARMACEUTICALS, INC.

CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS

(in thousands, except share and per share data)

	Year Ended December 31, 2017	Year Ended December 31, 2016	Year Ended December 31, 2015
Operating expenses:			
Research and development	\$ 22,894	\$ 19,594	\$ 7,148
Selling, general, and administrative	9,518	6,311	3,425
Total operating expenses	<u>32,412</u>	<u>25,905</u>	<u>10,573</u>
Loss from operations	(32,412)	(25,905)	(10,573)
Other income (expense):			
Revaluation of Series A Investor Instrument and Series A Investor Right/Obligation	(1,863)	—	(500)
Interest income, net	566	33	—
Total other income (expense):	<u>(1,297)</u>	<u>33</u>	<u>(500)</u>
Net loss and comprehensive loss	<u>\$ (33,709)</u>	<u>\$ (25,872)</u>	<u>\$ (11,073)</u>
Net loss attributable to common stockholders	<u>\$ (37,582)</u>	<u>\$ (29,074)</u>	<u>\$ (12,000)</u>
Net loss attributable to common stockholders per common share, basic and diluted	<u>\$ (2.83)</u>	<u>\$ (2.85)</u>	<u>\$ (1.18)</u>
Weighted average common shares outstanding, basic and diluted	<u>13,267,960</u>	<u>10,196,292</u>	<u>10,196,292</u>

The accompanying notes are an integral part of these financial statements

RHYTHM PHARMACEUTICALS, INC.

CONSOLIDATED STATEMENTS OF CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' EQUITY (DEFICIT)

(in thousands, except share and per share data)

	Series A Convertible Preferred Stock		Common Stock		Series A-1 Junior Preferred Stock		Additional Paid-In Capital	Accumulated Deficit	Total Stockholders' Equity (Deficit)
	Shares	Amount	Shares	Amount	Shares	Amount			
Balance at December 31, 2014	—	\$ —	10,196,292	\$ 10	—	\$ —	\$ 39,230	\$ (39,598)	\$ (358)
Equity contribution	—	—	—	—	—	—	2,094	—	2,094
Modification of warrant in connection with a license agreement	—	—	—	—	—	—	923	—	923
Stock compensation expense	—	—	—	—	—	—	298	—	298
Dividend to Rhythm Holding Company LLC (associated with common stock options granted to employees of Motus Therapeutics, Inc.)	—	—	—	—	—	—	2,695	—	2,695
Dividend to Rhythm Holding Company LLC (associated with common stock options granted to employees of Motus Therapeutics, Inc.)	—	—	—	—	—	—	(2,695)	—	(2,695)
Reclassification of Series A Investor Right/Obligation liability upon Series A second tranche closing	—	883	—	—	—	—	117	—	117
Issuance of Series A Convertible Preferred Stock	40,000,000	39,117	—	—	—	—	—	—	—
Net loss	—	—	—	—	—	—	—	(11,073)	(11,073)
Balance at December 31, 2015	40,000,000	40,000	10,196,292	10	—	—	42,662	(50,671)	(7,999)
Stock compensation expense	—	—	—	—	—	—	1,168	—	1,168
Net loss	—	—	—	—	—	—	—	(25,872)	(25,872)
Balance at December 31, 2016	40,000,000	40,000	10,196,292	10	—	—	43,830	(76,543)	(32,703)
Stock compensation expense	—	—	—	—	—	—	2,278	—	2,278
Issuance of common stock in connection with exercise of stock options	—	—	152,671	—	—	—	700	—	700
Change in unrealized loss on marketable securities	—	—	—	—	—	—	(141)	—	(141)
Issuance of Series A Convertible Preferred Stock	40,949,999	40,622	—	—	—	—	(108)	—	(108)
Settlement of Series A investor instrument	—	328	—	—	—	—	1,863	—	1,863
Exchange of common stock held by LLC entity for Series A-1 Junior Preferred Stock	—	—	(8,578,661)	(8)	78,666,209	79	(71)	—	—
Issuance of common stock upon completion of initial public offering, net of offering costs	—	—	8,107,500	8	—	—	125,650	—	125,658
Conversion of Series A Convertible Preferred Stock and Series A-1 Junior Preferred Stock into common stock on a 9.17 to 1 basis	(80,949,999)	(80,950)	17,406,338	17	(78,666,209)	(79)	81,012	—	80,950
Net loss	—	—	—	—	—	—	—	(33,709)	(33,709)
Balance at December 31, 2017	—	\$ —	27,284,140	\$ 27	—	\$ —	\$ 255,013	\$ (110,252)	\$ 144,788

The accompanying notes are an integral part of these financial statements

RHYTHM PHARMACEUTICALS, INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS

(in thousands, except share and per share data)

	Fiscal Year Ended December 31,		
	2017	2016	2015
<b>Operating activities</b>			
Net loss	\$ (33,709)	\$ (25,872)	\$ (11,073)
Adjustments to reconcile net loss to cash used in operating activities:			
Stock-based compensation expense	2,278	1,168	298
Depreciation and amortization	223	144	—
Non-cash rent expense	(76)	11	—
Modification of warrant in connection with license agreement	—	—	923
Mark to market revaluation of Series A Investor Instrument and Series A Investor Right/Obligation	1,863	—	500
Changes in operating assets and liabilities:			
Prepaid expenses and other current assets	(1,889)	41	(581)
Deferred issuance costs	9	1,472	(1,481)
Tenant improvement allowance	—	376	—
Accounts payable, accrued expenses and other current liabilities	1,946	160	3,838
Deferred grant income	—	(249)	249
Due to related parties	(105)	(470)	575
Net cash used in operating activities	<u>(29,460)</u>	<u>(23,219)</u>	<u>(6,752)</u>
<b>Investing activities</b>			
Purchases of short-term investments	(126,917)	(15,222)	—
Maturities of short-term investments	17,006	11,169	—
Purchases of property, plant and equipment	(133)	(1,057)	(17)
Net cash used in investing activities	<u>(110,044)</u>	<u>(5,110)</u>	<u>(17)</u>
<b>Financing activities</b>			
Net proceeds from issuance of common stock	125,658	—	—
Net proceeds from issuance of Series A Convertible Preferred Stock	40,842	—	39,617
Equity Contribution	—	—	2,094
Proceeds from the exercise of stock options	700	—	—
Net cash provided by financing activities	<u>167,200</u>	<u>—</u>	<u>41,711</u>
Net increase (decrease) in cash, cash equivalents and restricted cash	27,696	(28,329)	34,942
Cash, cash equivalents and restricted cash at beginning of year	6,765	35,094	152
Cash, cash equivalents and restricted cash at end of year	<u>\$ 34,461</u>	<u>\$ 6,765</u>	<u>\$ 35,094</u>

The accompanying notes are an integral part of these financial statements

Notes to Consolidated Financial Statements

(In thousands, except share and per share information)

**1. Nature of Business**

Rhythm Pharmaceuticals, Inc. (the “Company”), is a biopharmaceutical company focused on the development and commercialization of peptide therapeutics for the treatment of genetic deficiencies that result in life-threatening metabolic disorders. The Company’s lead product candidate is setmelanotide (RM-493), which is a potent, first-in-class, melanocortin-4, or MC4, receptor agonist for the treatment of rare genetic disorders of obesity caused by MC4 pathway deficiencies. The Company is currently evaluating setmelanotide for the treatment of six genetic disorders of obesity: pro-opiomelanocortin, or POMC, leptin receptor, or LepR, Bardet-Biedl syndrome, Alström syndrome, POMC heterozygous, and POMC epigenetic disorders.

**Corporate Reorganization**

The Company is a Delaware corporation organized in February 2013 under the name Rhythm Metabolic, Inc. Prior to the Company’s organization and the Corporate Reorganization referred to below, the Company was part of Rhythm Pharmaceuticals, Inc. (the “Predecessor Company”), a Delaware corporation which was organized in November 2008 and which commenced active operations in 2010.

In March 2013, the Predecessor Company underwent a corporate reorganization, (the “Corporate Reorganization”), pursuant to which all of the outstanding equity securities of the Predecessor Company were exchanged for units of Rhythm Holding Company, LLC, a newly-organized limited liability company (the “LLC entity”). After the consummation of this exchange and as part of the Corporate Reorganization, the Predecessor Company contributed setmelanotide and the MC4R agonist program to the Company and distributed to the LLC entity all of the then issued and outstanding shares of the Company’s stock. The result of the Corporate Reorganization was that the Company and the Predecessor Company became wholly-owned subsidiaries of the LLC entity and the two product candidates and related programs that were originally held by the Predecessor Company were separated, with relamorelin and the ghrelin agonist program being retained by the Predecessor Company and setmelanotide and the MC4R agonist program being held by the Company. The Predecessor Company, after consummation of the Corporate Reorganization, is referred to within these Notes to Financial Statements as the Relamorelin Company and/or Motus.

On October 13, 2015, the Relamorelin Company changed its name to Motus Therapeutics, Inc (“Motus”) and the Company changed its name to Rhythm Pharmaceuticals, Inc. On December 15, 2016, Motus was sold to a large pharmaceutical company. On August 21, 2017, the LLC entity distributed to its members all of its shares of the Company (see Note 5 for further discussion).

**Liquidity**

The Company has incurred operating losses and negative cash flows from operations since inception, incurred a net loss of \$33,709, \$25,872 and \$11,073 during the years ended December 31, 2017, 2016 and 2015, respectively, and has an accumulated deficit of \$110,252 as of December 31, 2017. The Company has primarily funded these losses through capital contributions received from the LLC entity and the sale of preferred and common stock to outside investors. To date, the Company has no product revenue and management expects operating losses to continue for the foreseeable future. The Company has devoted substantially all of its resources to its drug development efforts, comprising research and development, manufacturing, conducting clinical trials for its product candidates, protecting its intellectual property and general and administrative functions relating to these operations. The future success of the Company is

**Notes to Consolidated Financial Statements (Continued)**

**(In thousands, except share and per share information)**

**1. Nature of Business (Continued)**

dependent on its ability to develop its product candidates and ultimately upon its ability to attain profitable operations. At December 31, 2017, the Company had \$148,082 of cash and cash equivalents and short-term investments on hand. In the future, the Company will be dependent on obtaining funding from third parties, such as proceeds from the issuance of debt, sale of equity, and funded research and development programs, to maintain the Company's operations and meet the Company's obligations. There is no guarantee that additional equity or other financings will be available to the Company on acceptable terms, or at all. If the Company fails to obtain additional funding when needed, the Company would be forced to scale back, terminate its operations or seek to merge with or be acquired by another company. Management believes that the Company's existing cash resources will be sufficient to fund the Company's operating plan into the second half of 2019.

**2. Summary of Significant Accounting Policies**

***Basis of Presentation***

The Company's consolidated financial statements have been prepared in conformity with accounting principles generally accepted in the United States ("GAAP"). Any reference in these notes to applicable guidance is meant to refer to the authoritative United States generally accepted accounting principles as found in the Accounting Standards Codification ("ASC") and Accounting Standards Updates ("ASU") of the Financial Accounting Standards Board ("FASB").

The Company has historically existed and functioned as part of the consolidated businesses of the Predecessor Company. As noted above, the Predecessor Company's setmelanotide and the MC4R agonist program were transferred to the Company as part of the Corporate Reorganization on March 21, 2013. These financial statements include the results of operations of setmelanotide and the MC4R agonist program from its inception. As part of the Corporate Reorganization, the Company also entered into a formal payroll services intercompany agreement with the Relamorelin Company. On November 16, 2016, the employees of the Relamorelin Company that were providing services to the Company, terminated their employment contracts with the Relamorelin Company and entered into new employment agreements with the Company. On December 15, 2016, the Relamorelin Company closed on its sale to a large pharmaceutical company. During 2016 and 2015, costs have been allocated to the Company for the purposes of preparing the financial statements based on a specific identification basis or, when specific identification is not practicable, a proportional cost allocation method which allocates expenses based upon the percentage of employee time and research and development effort expended on the Company's business as compared to total employee time and research and development effort of the combined Motus and Rhythm. The proportional use basis adopted to allocate shared costs is in accordance with the guidance of SEC Staff Accounting Bulletin ("SAB") Topic 1B, *Allocation Of Expenses And Related Disclosure In Financial Statements Of Subsidiaries, Divisions Or Lesser Business Components Of Another Entity*. Management has determined that the method of allocating costs to the Company is reasonable. Cost allocation was no longer required subsequent to the 2016 sale of the Relamorelin Company.

Management believes that the statements of operations include a reasonable allocation of costs and expenses incurred by the Relamorelin Company, which benefited the Company. However, such amounts may not be indicative of the actual level of costs and expenses that would have been incurred by the Company if it had operated as an independent company or of the costs and expenses expected to be incurred in the future. Management has not presented an estimate of what the expenses of the Company

**Notes to Consolidated Financial Statements (Continued)**

**(In thousands, except share and per share information)**

**2. Summary of Significant Accounting Policies (Continued)**

would have been on a standalone basis as it was not practicable to make a reasonable estimate. As such, the financial information herein may not necessarily reflect the financial position, results of operations and cash flows of the Company expected in the future or what it would have been had it been an independent company during the periods presented.

As described above, Relamorelin Company employee costs are allocated to the Company based on a proportional use method. For those employees who became employees of the Company on November 16, 2016, their full employment cost was \$2,727 and \$3,155 for the years ended December 31, 2016 and 2015, respectively.

On September 22, 2017, the Company's board of directors approved a 1-for-9.17 reverse stock split of the Company's issued and outstanding shares of common stock. All share and per share amounts in the financial statements have been retrospectively adjusted for all periods presented to give effect of the reverse stock split.

On October 5, 2017, the Company filed an amended and restated certificate of incorporation with the Secretary of State of the State of Delaware to increase its authorized number of shares of common stock to 120,000,000 shares of common stock, \$0.001 par value per share and 10,000,000 shares of preferred stock, \$0.001 par value per share.

On October 10, 2017 the Company completed its initial public offering ("IPO") of 8,107,500 shares of common stock at an offering price of \$17.00 per share, which included the exercise in full by the underwriters of their option to purchase up to 1,057,500 additional shares of common stock. The Company received gross proceeds of approximately \$137,828 or net proceeds of \$125,658 after deducting underwriting discounts, commissions and estimated offering expenses. In connection with the IPO, the Company's outstanding shares of convertible preferred stock were automatically converted into 17,406,338 shares of common stock. After the IPO and as of December 31, 2017, our outstanding common shares were 27,284,140.

***Use of Estimates***

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. The Company bases its estimates on historical experience and other market-specific or other relevant assumptions that it believes to be reasonable under the circumstances. This process may result in actual results differing materially from those estimated amounts used in the preparation of the financial statements if these results differ from historical experience, or other assumptions do not turn out to be substantially accurate, even if such assumptions are reasonable when made. Significant estimates relied upon in preparing these financial statements include the allocation of costs from the Relamorelin Company in accordance with SAB Topic 1B, accrued expenses, stock-based compensation expense, the valuation allowance on the Company's deferred tax assets, and the fair value of the Series A Investor Instrument. See Note 4.

Notes to Consolidated Financial Statements (Continued)

(In thousands, except share and per share information)

2. Summary of Significant Accounting Policies (Continued)

*Principles of Consolidation*

The consolidated financial statements include the accounts of Rhythm Pharmaceuticals, Inc. and its subsidiaries. All significant intercompany balances and transactions have been eliminated in consolidation.

*Off-Balance Sheet Risk and Concentrations of Credit Risk*

Financial instruments, which potentially subject the Company to significant concentration of credit risk, consist primarily of cash and cash equivalents and short-term investments, which are maintained at two federally insured financial institutions. The deposits held at these two institutions are in excess of federally insured limits. The Company has not experienced any losses in such accounts and management believes that the Company is not exposed to significant credit risk due to the financial position of the depository institutions in which those deposits are held. The Company has no off-balance sheet risk, such as foreign exchange contracts, option contracts, or other foreign hedging arrangements.

*Segment Information*

Operating segments are defined as components of an entity about which separate discrete information is available for evaluation by the chief operating decision maker, or decision-making group, in deciding how to allocate resources and in assessing performance. The Company views its operations and manages its business in one operating segment operating exclusively in the United States.

*Cash and Cash Equivalents*

The Company considers all highly liquid investments with original or remaining maturity from the date of purchase of three months or less to be cash equivalents. Cash and cash equivalents includes bank demand deposits, U.S. treasury bills and money market funds that invest primarily in U.S. government treasuries.

*Short-term Investments*

Short-term investments consist of investments with original maturities greater than 90 days, as of the date of purchase. The Company has classified its investments with maturities beyond one year as short term, based on their highly liquid nature and because such marketable securities represent the investment of cash that is available for current operations. The Company considers its investment portfolio available-for-sale. Accordingly, these investments are recorded at fair value, which is based on quoted market prices. Unrealized gains and losses are reported as a component of accumulated other comprehensive income (loss) in stockholders' equity (deficit). Realized gains and losses and declines in value judged to be other than temporary are included as a component of other income (expense), net based on the specific identification method. When determining whether a decline in value is other than temporary, the Company considers various factors, including whether the Company has the intent to sell the security, and whether it is more likely than not that the Company will be required to sell the security prior to recovery of its amortized cost basis. Fair value is determined based on quoted market prices.

## Notes to Consolidated Financial Statements (Continued)

(In thousands, except share and per share information)

## 2. Summary of Significant Accounting Policies (Continued)

**Restricted Cash**

Restricted cash consists of a security deposit in the form of a letter of credit placed in a separate restricted bank account as required under the terms of the Company's new lease arrangement for its corporate office in Boston, Massachusetts.

**Deferred Issuance Costs**

Deferred issuance costs, which consist of direct incremental legal and accounting fees relating to the IPO, were capitalized and included in non-current assets. The deferred issuance costs were to be offset against IPO proceeds upon the consummation of the offering. In the event the offering was terminated, deferred issuance costs would be expensed.

The Company had capitalized \$1,825 of deferred issuance costs related to a prior registration statement confidentially submitted to the Securities and Exchange Commission in 2015 and 2016. In the fourth quarter of 2016, the Company wrote off these deferred issuance costs to general and administrative expenses because the offering was postponed significantly in excess of 90 days. As a result, the costs were not deemed realizable as the Company incurred similar costs in connection with its IPO in October 2017. The Company incurred \$9 of deferred issuance costs as of December 31, 2016, which is included in non-current assets.

**Prepaid Expenses and Other Current Assets**

Prepaid expenses and other current assets consist primarily of costs incurred in advance of services being received, including services related to clinical trial programs.

	December 31,	
	2017	2016
Prepaid research and development costs	\$ 1,533	\$ 422
Other current assets	1,056	216
Prepaid expenses and other current assets	<u>\$ 2,589</u>	<u>\$ 638</u>

## Notes to Consolidated Financial Statements (Continued)

(In thousands, except share and per share information)

## 2. Summary of Significant Accounting Policies (Continued)

*Property, Plant and Equipment*

Property, Plant and Equipment consists of the following:

	Useful Life	December 31,	
		2017	2016
Leasehold improvements	*	\$ 891	\$ 891
Office equipment	5 years	70	70
Computers and software	3 years	19	19
Furniture and fixtures	5 years	227	94
		1,207	1,074
Less accumulated depreciation and amortization		(367)	(144)
Property, Plant and Equipment, net		\$ 840	\$ 930

\* Shorter of asset life or lease term.

*2017 Series A Investor Instrument, 2015 Series A Investor Right/Obligation and 2015 Series A Investor Call Option*

The Company classified its 2017 Series A Investor Instrument, 2015 Series A Investor Right/Obligation and its 2015 Series A Investor Call Option (See Notes 4 and 5) as a liability as it is a free-standing financial instrument. The 2017 Series A Investor Instrument, the 2015 Series A Investor Right/Obligation and the 2015 Series A Investor Call Option were recorded at fair value upon the issuance of the Company's series A preferred stock in January 2017 and August 2015, respectively, and subsequently remeasured to fair value at each reporting period. Changes in fair value of these financial instruments are recognized as a component of other income (expense), net in the statement of operations and comprehensive loss.

The fair value of the 2017 Series A Investor Instrument is determined to be the sum of the fair values of the 2017 Series A Investor Right/Obligation and the 2017 Investor Call Option. The Company estimated the fair value of the 2017 and 2015 Series A Investor Right/Obligations as the probability-weighted present value of the expected benefit of the investment.

The Company used the Black-Scholes option-pricing model, which incorporates assumptions and estimates, to value the 2017 and 2015 Series A Investor Call Options and assessed these assumptions and estimates on a quarterly basis as additional information impacting the assumptions was obtained. Estimates and assumptions impacting the fair value measurement include the fair value per share of the underlying series A preferred stock, the expected term of the Series A Investor Call Options, risk-free interest rate, expected dividend yield and expected volatility of the price of the underlying preferred stock. The Company determined the fair value per share of the underlying preferred stock by taking into consideration the most recent sale of its convertible preferred stock and the investors' right to invest in a subsequent tranche. As the Company was a private company and lacked company-specific historical and implied volatility information of its stock, it estimated its expected stock volatility based on the historical volatility of publicly traded peer companies for a term comparable to the estimated term of the Series A

**Notes to Consolidated Financial Statements (Continued)**

**(In thousands, except share and per share information)**

**2. Summary of Significant Accounting Policies (Continued)**

Investor Call Options. The risk-free interest rate was determined by reference to the U.S. Treasury yield curve for time periods approximately equal to the estimated term of the Series A Investor Call Options. A dividend yield of zero was assumed.

***Government Grants***

The Company obtained an Orphan Products Development grant entitled “Phase 2 study of the melanocortin 4 receptor agonist RM-493 for the treatment of Prader-Willi syndrome” in 36 patients. The grant was awarded by the Public Health Service (“PHS”) Food and Drug Administration. The PHS grant is for a total of \$999 and is effective July 2015 through June 2018 for reimbursement of expenses relating to the Phase 2 Prader-Willi Study.

The Company recognizes government grants upon the determination that it will comply with the conditions attached to the grant arrangement and the grant will be received. Government grants are recognized in the statements of operations on a systematic basis over the periods in which the Company recognizes the related costs for which the government grant is intended to compensate. Government grants for research and development efforts are deducted in reporting the related expense in the statement of operations. Government grant income received during the year ended December 31, 2017, 2016 and 2015 of zero, \$642 and \$147, respectively, and is included as a deduction to research and development expense in the consolidated statements of operations.

***Research and Development Expenses***

Costs incurred in the research and development of the Company’s products are expensed to operations as incurred. Research and development expenses consist of costs incurred in performing research and development activities, including salaries and benefits, facilities costs, overhead costs, contract services and other outside costs, both directly incurred and allocated from the Relamorelin Company. The value of goods and services received from contract research organizations or contract manufacturing organizations in the reporting period are estimated based on the level of services performed and progress in the period for which the Company has not yet received an invoice from the supplier.

Nonrefundable advance payments for goods or services to be received in the future for use in research and development activities are recorded as prepaid expenses, and expensed as the related goods are delivered or the services are performed.

***Income Taxes***

The Company is taxed as a C corporation for federal income tax purposes. Income taxes for the Company are recorded in accordance with FASB ASC Topic 740, *Income Taxes* (“ASC 740”), which provides for deferred taxes using an asset and liability approach. Income taxes have been calculated on a separate tax return basis. Certain of the Company’s activities and costs have been included in the tax returns filed by the Relamorelin Company and the LLC entity. Prior to the Corporate Reorganization, the Company’s operations were included in the tax returns filed by the Predecessor Company. The Company has filed tax returns on its own behalf since the Corporate Reorganization.

The Company accounts for income taxes under the asset and liability method, which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that

Notes to Consolidated Financial Statements (Continued)

(In thousands, except share and per share information)

**2. Summary of Significant Accounting Policies (Continued)**

have been included in the financial statements. Under this method, the Company determined deferred tax assets and liabilities on the basis of the differences between the financial statement and tax bases of assets and liabilities by using enacted tax rates in effect for the year in which the differences are expected to reverse. The effect of a change in tax rates on deferred tax assets and liabilities is recognized in income in the period that includes the enactment date. The Company recognized deferred tax assets to the extent that it believes that these assets are more likely than not to be realized. In making such a determination, the Company considers all available positive and negative evidence, including future reversals of existing taxable temporary differences, projected future taxable income, tax-planning strategies, and results of recent operations. If the Company determines that it would be able to realize our deferred tax assets in the future in excess of their net recorded amount, it would make an adjustment to the deferred tax asset valuation allowance, which would reduce the provision for income taxes.

The Company records uncertain tax positions in accordance with ASC 740 on the basis of a two-step process in which (1) it determines whether it is more likely than not that the tax positions will be sustained on the basis of the technical merits of the position and (2) for those tax positions that meet the more-likely-than-not recognition threshold, the Company recognizes the largest amount of tax benefit that is more than 50 percent likely to be realized upon ultimate settlement with the related tax authority.

The Company recognizes interest and penalties related to unrecognized tax benefits on the income tax expense line in the accompanying consolidated statement of operations. As of December 31, 2017, no accrued interest or penalties are included on the related tax liability line in the consolidated balance sheet.

***Net Loss Per Share Attributable to Common Shareholders***

Basic net loss per share attributable to common stockholders is calculated by dividing net loss attributable to common stockholders by the weighted average shares outstanding during the period, without consideration for Common Stock equivalents. Net loss attributable to common stockholders is calculated by adjusting the net loss of the Company for cumulative preferred stock dividends. During periods of income, the Company allocates participating securities a proportional share of income determined by dividing total weighted average participating securities by the sum of the total weighted average common shares and participating securities (the "two class method"). The Company's convertible preferred stock participates in any dividends declared by the Company and are therefore considered to be participating securities. Participating securities have the effect of diluting both basic and diluted earnings per share during periods of income. During periods of loss, the Company allocates no loss to participating securities because they have no contractual obligation to share in the losses of the Company. Diluted net loss per share attributable to common stockholders is calculated by adjusting weighted average shares outstanding for the dilutive effect of Common Stock equivalents outstanding for the period, determined using the treasury-stock and if-converted methods. For purposes of the diluted net loss per share attributable to common stockholders calculation, convertible preferred stock and stock options are considered to be Common Stock equivalents but have been excluded from the calculation of diluted net loss per share attributable to common stockholders, as their effect would be anti-dilutive for all periods presented. Therefore, basic and diluted net loss per share were the same for all periods presented.

## Notes to Consolidated Financial Statements (Continued)

(In thousands, except share and per share information)

## 2. Summary of Significant Accounting Policies (Continued)

Basic and diluted earnings per share is calculated as follows:

	Year Ended December 31,		
	2017	2016	2015
<b>Numerator:</b>			
Net loss	\$ (33,709)	\$ (25,872)	\$ (11,073)
Cumulative dividends on convertible preferred shares	(3,873)	(3,202)	(927)
Loss attributable to common shares—basic and diluted	<u>\$ (37,582)</u>	<u>\$ (29,074)</u>	<u>\$ (12,000)</u>
<b>Denominator:</b>			
Weighted-average number of common shares—basic and diluted	13,267,960	10,196,292	10,196,292
Loss per common share—basic and diluted	<u>\$ (2.83)</u>	<u>\$ (2.85)</u>	<u>\$ (1.18)</u>

**Patent Costs**

Costs to secure and defend patents are expensed as incurred and are classified as general and administrative expenses. Patent costs were \$180, \$231 and \$280 for the years ended December 31, 2017, 2016 and 2015, respectively.

**Subsequent Events**

The Company considers events or transactions that occur after the balance sheet date but prior to the issuance of the financial statements to provide additional evidence for certain estimates or to identify matters that require additional disclosure. Subsequent events have been evaluated as required.

**Application of New or Revised Accounting Standards**

From time to time, new accounting pronouncements are issued by the FASB and adopted by the Company as of the specified effective date. Unless otherwise discussed, the Company believes that the impact of recently issued standards that are not yet effective will not have a material impact on its financial position or results of operations upon adoption.

In April 2012, the Jump-Start Our Business Startups Act (the “JOBS Act”) was signed into law. The JOBS Act contains provisions that, among other things, reduce certain reporting requirements for an “emerging growth company.” As an emerging growth company, the Company elected to not take advantage of the extended transition period afforded by the JOBS Act for the implementation of new or revised accounting standards, and as a result, will comply with new or revised accounting standards on the relevant dates on which adoption of such standards is required for non-emerging growth companies.

In February 2016, the FASB issued ASU 2016-02, Leases (Topic 842). ASU 2016-02 requires lessees to recognize lease assets and lease liabilities for those leases classified as operating leases under previous GAAP. A lessee should recognize in the statement of financial position a liability to make lease payments

Notes to Consolidated Financial Statements (Continued)

(In thousands, except share and per share information)

2. Summary of Significant Accounting Policies (Continued)

(the lease liability) and a right-of-use asset representing its right to use the underlying asset for the lease term. For leases with a term of 12 months or less, a lessee is permitted to make an accounting policy election by class of underlying asset not to recognize lease assets and lease liabilities. The recognition, measurement, and presentation of expenses and cash flows arising from a lease by a lessee have not significantly changed from previous GAAP. There continues to be a differentiation between finance leases and operating leases. ASU 2016-02 is effective for fiscal years beginning after December 15, 2018, and interim periods within those fiscal years, and early adoption is permitted. The Company is currently in the process of evaluating the impact of adoption of ASU No. 2016-02 on its financial position and results of operations.

In March 2016, the FASB issued ASU 2016-09, *Improvements to Employee Share-Based Payment Accounting (Topic 718)* that changes the accounting for certain aspects of share-based payments to employees. The guidance requires the recognition of the income tax effects of awards in the income statement when the awards vest or are settled, thus eliminating additional paid in capital pools. The guidance also allows for the employer to repurchase more of an employee's shares for tax withholding purposes without triggering liability accounting. In addition, the guidance allows for a policy election to account for forfeitures as they occur rather than on an estimated basis. The guidance is effective for annual periods beginning after December 15, 2016, and interim periods within those annual periods with early adoption permitted. Accordingly, the standard is effective for the Company on January 1, 2018. The Company adopted the standard as of January 1, 2017. The adoption did not have a material impact on the Company's financial position, results of operations or cash flows.

In May 2017, the FASB issued ASU 2017-09, *Compensation—Stock Compensation (Topic 718): Scope of Modification Accounting*, ("ASU 2017-09"). ASU 2017-09 provides clarity and reduces both (1) diversity in practice and (2) cost and complexity when applying the guidance in Topic 718, to a change to the terms or conditions of a share-based payment award. The amendments in ASU 2017-09 should be applied prospectively to an award modified on or after the adoption date. This ASU is effective for fiscal years, and interim periods within those years, beginning after December 15, 2017. The adoption of this ASU is not expected to have a material impact on the Company's financial position or results of operations.

In July 2017, the FASB issued ASU 2017-11, *Earnings Per Share (Topic 260), Distinguishing Liabilities from Equity (Topic 480) and Derivatives and Hedging (Topic 815): I. Accounting for Certain Financial Instruments with Down Round Features; 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*, ("ASU 2017-11"). Part I of this update addresses the complexity of accounting for certain financial instruments with down round features. Down round features are features of certain equity-linked instruments (or embedded features) that result in the strike price being reduced on the basis of the pricing of future equity offerings. Current accounting guidance creates cost and complexity for entities that issue financial instruments (such as warrants and convertible instruments) with down round features that require fair value measurement of the entire instrument or conversion option. Part II of this update addresses the difficulty of navigating Topic 480, *Distinguishing Liabilities from Equity*, because of the existence of extensive pending content in the FASB Accounting Standards Codification. This pending content is the result of the indefinite deferral of accounting requirements about mandatorily redeemable financial instruments of certain nonpublic entities and certain mandatorily redeemable noncontrolling interests. The amendments in Part II of this update do not have an

## Notes to Consolidated Financial Statements (Continued)

(In thousands, except share and per share information)

## 2. Summary of Significant Accounting Policies (Continued)

accounting effect. This ASU is effective for fiscal years, and interim periods within those years, beginning after December 15, 2018. The Company is currently assessing the potential impact of adopting ASU 2017-11 on its financial statements and related disclosures.

## 3. Accrued Expenses

Accrued expenses consisted of the following:

	December 31, 2017	December 31, 2016
Research and development costs	\$ 2,771	\$ 2,049
Professional fees	327	182
Payroll related	1,094	344
Other	18	80
Accrued expenses	<u>\$ 4,210</u>	<u>\$ 2,655</u>

## 4. Fair Value of Financial Assets and Liability

As of December 31, 2017 and 2016, the carrying amount of cash and cash equivalents and short-term investments was \$148,082 and \$10,537, respectively, which approximates fair value. Cash and cash equivalents and short-term investments includes investments in money market funds that invest in U.S. government securities that are valued using quoted market prices. Accordingly, money market funds and government funds are categorized as Level 1 and had a total balance of \$34,698 and \$7,984 as of December 31, 2017 and 2016, respectively. The financial assets valued based on level 2 inputs consist of corporate debt securities, which consist of investments in highly-rated investment-grade corporations.

A financial liability was recognized by the Company during the year ending December 31, 2017 related to the 2017 Series A Investor Instrument. The liability was valued based on significant inputs not observable in the market, which represents a Level 3 measurement within the fair value hierarchy. Upon the closing of the second tranche of the 2017 Series A preferred financing in August 2017, this liability was settled. For the year ended December 31, 2016, the Company had no financial liability outstanding measured at fair value. The Company recognized a financial liability during 2015 related to its 2015 Series A Investor Right/Obligation and 2015 Series A Investor Call Option that was exercised or expired, respectively, in December 2015. The liability was based on significant inputs not observable in the market, which represents a Level 3 measurement within the fair value hierarchy.

## Notes to Consolidated Financial Statements (Continued)

(In thousands, except share and per share information)

## 4. Fair Value of Financial Assets and Liability (Continued)

The following tables present information about the Company's financial assets and liabilities measured at fair value on a recurring basis and indicate the level of the fair value hierarchy utilized to determine such fair values:

	Fair value Measurements as of December 31, 2017 using:			Total
	Level 1	Level 2	Level 3	
<b>Assets:</b>				
<b>Cash Equivalents:</b>				
Corporate Debt Securities	\$ —	\$ 15,104	\$ —	\$ 15,104
Money Market Funds	17,753	—	—	17,753
<b>Marketable Securities:</b>				
Corporate Debt Securities	—	96,901	—	96,901
U.S. Treasury Securities	16,945	—	—	16,945
<b>Total</b>	<b>\$ 34,698</b>	<b>\$ 112,005</b>	<b>\$ —</b>	<b>\$ 146,703</b>
<b>Liabilities:</b>				
2017 Series A Investor Instrument	\$ —	\$ —	\$ —	\$ —
<b>Total</b>	<b>\$ —</b>	<b>\$ —</b>	<b>\$ —</b>	<b>\$ —</b>

	Fair value Measurements as of December 31, 2016 using:			Total
	Level 1	Level 2	Level 3	
<b>Assets:</b>				
<b>Cash Equivalents:</b>				
Government Funds	\$ 2,000	\$ —	\$ —	\$ 2,000
Money Market Funds	1,987	—	—	1,987
<b>Marketable Securities:</b>				
Government Funds	3,997	—	—	3,997
<b>Total</b>	<b>\$ 7,984</b>	<b>\$ —</b>	<b>\$ —</b>	<b>\$ 7,984</b>

**Marketable Securities**

The following tables summarize the Company's marketable securities:

	December 31, 2017			Fair Value
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	
<b>Assets</b>				
Corporate Debt Securities (due within 1 year)	\$ 97,029	\$ —	\$ (128)	\$ 96,901
U.S. Treasury Securities (due within 1 year)	16,958	—	(13)	16,945
	<u>\$ 113,987</u>	<u>\$ —</u>	<u>\$ (141)</u>	<u>\$ 113,846</u>

Rhythm Pharmaceuticals, Inc.

Notes to Consolidated Financial Statements (Continued)

(In thousands, except share and per share information)

4. Fair Value of Financial Assets and Liability (Continued)

	December 31, 2016			Fair Value
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	
Assets				
Government Funds (due within 1 year)	\$ 3,997	\$ —	\$ —	\$ 3,997
	<u>\$ 3,997</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 3,997</u>

Below is a roll forward of the fair value of the financial liability, the 2017 Series A Investor Instrument for the year ended December 31, 2017:

	2017 Series A Investor Instrument
Fair value at December 31, 2016	\$ —
Fair value upon the January 2017 Initial Closing, net	328
Change in fair value through the date of settlement	1,863
Reclassification of liability upon August 2017 Second Tranche Closing	(2,191)
Fair value at December 31, 2017	<u>\$ —</u>

The fair value of the Series A Investor Instrument is the sum of the probability-weighted fair value of the 2017 Investor Right/Obligation and the 2017 Series A Call Option.

The following assumptions and inputs were used in determining the fair value of the 2017 Series A Investor Call Option valued using the Black- Scholes option pricing model:

	August 2017 Second Tranche Closing
Series A Convertible Preferred Stock Exercise Price	\$ 1.00
Series A Convertible Preferred Stock Fair Value	\$ 1.33
Expected term	1.5 months
Expected volatility	64.0%
Expected interest rate	0.95%
Expected dividend yield	—

The Company estimated the fair value of the 2017 Series A Investor Right/Obligation as the probability-weighted present value of the expected benefit of the investment. The expected benefit is the difference between the expected future value of shares issued upon the second tranche closing and the investment price for the second tranche closing. The expected future value is estimated as a weighted average of IPO and remain private scenarios, and the future value is converted to a present value assuming a closing date of August 15, 2017 and a nominal, risk-free discount rate.

## Notes to Consolidated Financial Statements (Continued)

(In thousands, except share and per share information)

## 4. Fair Value of Financial Assets and Liability (Continued)

Below is a roll forward of the fair value of financial liabilities for the year ended December 31, 2015:

	2015 Series A Investor Right/Obligation And 2015 Series A Investor Call Option
Fair value at December 31, 2014	\$ —
Fair value upon the August 2015 Initial Closing	500
Change in fair value through the date of settlement	500
Reclassification of liability upon December 2015 Second Tranche closing	(1,000)
Fair value at December 31, 2015	\$ —

The following assumptions and inputs were used in determining the fair value of the 2015 Series A Investor Call Option valued using the Black- Scholes option pricing model:

	August 2015 Initial Tranche Closing
Series A Convertible Preferred Stock Exercise Price	\$ 1.00
Series A Convertible Preferred Stock Fair Value	\$ 0.81
Expected term	2 months
Expected volatility	24.0%
Expected interest rate	0.08%
Expected dividend yield	—

The 2015 Series A Investor Call Option expired upon the Second Tranche Closing in December 2015.

The Company estimated the fair value of the 2015 Series A Investor Right/Obligation as the probability-weighted present value of the expected benefit of the investment. The expected benefit is the difference between the expected future value of shares issued upon the second tranche closing and the investment price for the second tranche closing. The expected future value as of the August 2015 Initial Tranche Closing was estimated through a backsolve calculation which assumes a 70 percent probability of closing, a discount rate of 0.08% and a second tranche closing date of November 30, 2015.

The Company performed a contemporaneous valuation of the 2015 Series A Investor Right/Obligation to invest in the second tranche of our series A preferred stock financing. This valuation coincided with the 2015 Series A Second Tranche Closing on December 1, 2015. The Company valued the 2015 Series A Investor Right/Obligation as the benefit associated with the second tranche investment. The benefit is a function of the difference between the fair value of the series A shares and the 2015 Series A Investor Right/Obligation exercise price on the date of closing and the number of shares acquired. The Company estimated the fair value of the 2015 Series A Investor Right/Obligation as the probability weighted average of two scenarios: an IPO and a remain-private scenario.

Notes to Consolidated Financial Statements (Continued)

(In thousands, except share and per share information)

5. Preferred Stock

In August 2015, pursuant to the Series A Preferred Stock Purchase Agreement, by and among the Company and certain purchasers, and as part of an initial tranche closing, the Company issued 25,000,000 shares of Series A Convertible Preferred Stock, par value \$0.001 per share, at a purchase price of \$1.00 per share, resulting in net proceeds of \$24,976 to the Company (the "August 2015 Initial Tranche Closing"). The Series A Preferred Stock Purchase Agreement provided for the delayed issuance of up to an additional 15,000,000 shares of Series A Convertible Preferred Stock as part of a Second Tranche Closing. The delayed issuance was to be automatically settled upon the achievement of a specific milestone, resulting in the issuance of shares of Series A Convertible Preferred Stock (the "2015 Series A Investor Right/Obligation"). The 2015 Series A Investor Call Option would become exercisable in the event that a Second Tranche Closing was not been consummated. Both the 2015 Series A Investor Right/Obligation and the 2015 Series A Investor Call Option were evaluated and determined to be free standing instruments and were being accounted as liabilities (see Note 2). In December 2015, the specific milestones were met and 15,000,000 shares of Series A Convertible Preferred Stock were issued at a purchase price of \$1.00 per share for net proceeds of \$14,641. The 2015 Series A Investor Call Option expired unexercised at that time.

In January 2017, pursuant to the Series A preferred stock purchase agreement, by and among the Company and certain purchasers, and as part of an initial tranche closing, the Company issued 20,475,001 shares of Series A convertible preferred stock, par value \$0.001 per share, at a purchase price of \$1.00 per share, resulting in net proceeds of \$20,377 to the Company (the "January 2017 Initial Tranche Closing"). The Series A preferred stock purchase agreement provided for the delayed issuance by the Company of up to an additional 20,474,998 shares of Series A convertible preferred stock as part of a second tranche closing at a purchase price of \$1.00 per share (the "2017 Series A Investor Right/Obligation"). The second tranche is contingent upon: (1) the Company's cash, cash equivalents and short-term investments balance, net of accounts payable and accrued liabilities, falling below \$5.0 million and (2) the Company's satisfaction of contractual and customary representations and warranties. Unless otherwise mutually agreed upon in writing, the rights and obligations underlying the second tranche (if not previously executed) will terminate on the first to occur of the following dates: (1) the date (the "Roadshow Acceleration Date") on which the Company files with the U.S. Securities and Exchange Commission, or SEC, the last pre-effective amendment to the registration statement prior to the start of the Company's roadshow in connection with the IPO, provided, that such termination shall be contingent upon the consummation of the IPO pursuant to the same registration statement that was on file with the SEC on the Roadshow Acceleration Date, without withdrawal thereof or filing of a subsequent registration statement in replacement thereof; and (2) the date of the consummation of a Deemed Liquidation Event (as defined below). To the extent the closing of the second tranche has not already taken place, the investors in the first tranche also have a call right on the shares underlying the second tranche whereby such shares can be purchased for the same price as the second tranche (the "2017 Series A Investor Call Option"). The 2017 Series A Investor Call Option terminates upon the Roadshow Acceleration Date. The 2017 Series A Investor Right/Obligation and the 2017 Series A Investor Call Option have been evaluated and determined to be a free standing instrument, the 2017 Series A Investor Instrument. The 2017 Series A Investor Instrument was accounted for as a liability (see Note 2).

In August 2017, the Series A Investors waived the \$5.0 million cash balance requirement of the Series A Investor Right/Obligation and closed the second tranche of the series A preferred stock financing. The Company issued 20,474,998 shares of Series A convertible preferred stock, par value \$0.001 per share,

Notes to Consolidated Financial Statements (Continued)

(In thousands, except share and per share information)

5. Preferred Stock (Continued)

at a purchase price of \$1.00 per share, resulting in gross proceeds of \$20,475 to the Company. The 2017 Series A Investor Call Option expired unexercised at that time.

Upon the closing of the IPO, the Series A convertible preferred stock automatically converted into shares of common stock on a 9.17-for-1 basis.

The holders of the Series A convertible preferred stock had the following rights and preferences:

**Voting Rights**

The holders of Series A convertible preferred stock are entitled to vote, together with the holders of common stock, on all matters submitted to stockholders for a vote. Each preferred stockholder is entitled to the number of votes equal to the number of shares of common stock into which each preferred share is convertible at the time of such vote. In addition, pursuant to the Company's charter, the holders of record of the outstanding shares of Series A convertible preferred stock are entitled to elect one director to serve as the Series A preferred director on the board of directors of the Company.

**Dividends**

The holders of Series A convertible preferred stock are entitled to receive dividends in preference to any dividend on common stock at the rate of 8.0% per year of the original issue price. Dividends shall accrue annually, whether or not declared, and shall be cumulative. The Company may not declare, pay or set aside any dividends on shares of any other class or series of capital stock of the Company unless the holders of Series A convertible preferred stock then outstanding shall first receive, or simultaneously receive, dividends on each outstanding share of Series A convertible preferred stock. Through December 31, 2017, no dividends had been declared or paid by the Company. Accrued dividends, whether or not declared, shall also be payable upon any liquidation event. At December 31, 2017 and December 31, 2016, cumulative preference dividends amounted to zero, or \$0.00 per share and \$4,129, or \$0.10 per share, respectively.

**Liquidation**

In the event of any liquidation, dissolution or winding-up of the Company or a Deemed Liquidation Event (as defined below), the holders of Series A convertible preferred stock then outstanding shall be entitled to be paid out of the assets of the Company available for distribution to stockholders, and before any payment shall be made to holders of common stock, an amount per share equal to greater of (i) the original issue price per share, plus any accrued but unpaid dividends thereon, whether or not declared, plus any declared but unpaid dividends thereon, if any, or (ii) such amount per share as would have been payable had all shares of Series A convertible preferred stock been converted to common stock prior to such liquidation. If upon such event, the assets of the Company available for distribution are insufficient to permit payment in full to the holders of Series A convertible preferred stock, the proceeds will be ratably distributed among the holders of Series A convertible preferred stock in proportion to the respective amounts that they would have received if they were paid in full. After payments have been made in full to the holders of Series A convertible preferred stock, the remaining assets of the Company available for distribution will be distributed among the holders of Series A convertible preferred stock, the holders of the Series A-1 convertible junior preferred stock, and the holders of common stock as if the shares of

Notes to Consolidated Financial Statements (Continued)

(In thousands, except share and per share information)

**5. Preferred Stock (Continued)**

Series A convertible preferred stock and Series A-1 convertible junior preferred stock were converted to common stock immediately prior to the liquidation event.

A merger, acquisition, sale of voting control or other transaction of the Company in which the stockholders of the Company do not own a majority of the outstanding shares of the surviving company shall be considered a Deemed Liquidation Event. A sale, exclusive license, transfer or other disposition of all or substantially all of the assets of the Company shall also be considered a Deemed Liquidation Event. Each share of Series A convertible preferred stock may be redeemed at the option of the holder upon the occurrence of a deemed liquidation event. As of December 31, 2017 and December 31, 2016, the liquidation preference of the outstanding shares of Series A convertible preferred stock was approximately zero and \$44,129, respectively.

**Conversion**

Each share of Series A convertible preferred stock is convertible into common stock at the option of the stockholder at any time after the date of issuance. In addition, each share of Series A convertible preferred stock will be automatically converted into shares of common stock, at the applicable conversion ratio then in effect, upon the earlier of (i) a qualified public offering with gross proceeds of at least \$50,000 and a price of not less than \$1.00 per share, subject to appropriate adjustment for any stock dividend, stock split, combination or other similar recapitalization, and (ii) the date specified by vote or written consent of the holders of at least two-thirds of the then outstanding shares of series A preferred stock. The shares of Series A convertible preferred stock will be converted to common stock, at par value, with the remainder recorded to additional paid-in capital.

The conversion ratio of the Series A convertible preferred stock is determined by dividing the original issue price per share by the conversion price of \$9.17 per share, subject to appropriate adjustment in the event of any stock dividend, stock split, combination or recapitalization affecting the Series A convertible preferred stock.

On October 10, 2017 the Company completed its IPO and in connection with the IPO, the Company's outstanding shares of Series A convertible preferred stock and Series A-1 convertible junior preferred stock were automatically converted into 17,406,338 shares of common stock.

**6. Common Stock**

In March 2013, the Company issued 10,196,292 shares of common stock at a purchase price of \$0.001 per share. As of December 31, 2016, the LLC entity owned all of these shares.

On August 21, 2017, the LLC entity exchanged 8,578,646 of its shares of the Company's common stock for 78,666,209 shares of the Company's series A-1 junior preferred stock and the LLC entity distributed all of its shares of the Company's series A-1 junior preferred stock to the holders of its preferred units and the remaining 1,617,646 shares of its common stock to the holders of its common units. Following this distribution, the LLC entity no longer owned any of the Company's shares. The series A-1 junior preferred stock is not redeemable and does not have a stated dividend or liquidation preference. These shares converted to common stock on a 9.17-to-1 basis upon the closing of the IPO in October 2017.

Notes to Consolidated Financial Statements (Continued)

(In thousands, except share and per share information)

**6. Common Stock (Continued)**

In September 2017, the Company's board of directors approved a 1-for-9.17 reverse stock split of the Company's issued and outstanding shares of common stock. All shares and per share amounts in the financial statements have been retrospectively adjusted for all periods presented to give effect of the reverse stock split.

**7. Stock-based Compensation**

**2017 Stock Incentive Plan**

*2017 Plan Overview*

Prior to August 2015, we did not have our own equity compensation plan. In August 2015, our Board of Directors and our stockholders approved and we adopted the 2015 equity incentive plan, as amended and in effect prior to the closing of our IPO, or the 2015 Plan, which we terminated upon consummation of our IPO and replaced with the 2017 equity incentive plan, or the 2017 Plan. The 2017 Plan provides for the grant of incentive and non-qualified stock options and restricted stock awards to employees, consultants, advisors and directors, as determined by the board of directors. The Company reserved 4,018,538 shares of common stock to be issued under the Plan. The number of shares authorized under the 2017 Plan will be increased each January 1, commencing on January 1, 2018 and ending on (and including) January 1, 2027, by an amount equal to 4% of the outstanding shares of stock outstanding as of the end of the immediately preceding fiscal year. Notwithstanding the foregoing, our board of directors may act prior to January 1 for a given year to provide that there will be no such January 1 increase in the number of shares authorized under the 2017 Plan for such year, or that the increase in the number of shares authorized under the 2017 Plan for such year will be a lesser number than would otherwise occur pursuant to the preceding sentence. Shares of common stock issued upon exercise of stock options are generally issued from new shares of the Company. The Plan provides that the exercise price of incentive stock options cannot be less than 100% of the fair market value of the common stock on the date of the award for participants who own less than 10% of the total combined voting power of stock of the Company, and not less than 110% for participants who own more than 10% of the Company's voting power. Options and restricted stock granted under the Plan will vest over periods as determined by the Company's board of directors. For options granted to date, the exercise price equaled the fair value of the common stock as determined by the board of directors on the date of grant.

The Company estimates the fair value of stock-based awards to employees and non-employees using the Black-Scholes option-pricing model, which requires the input of highly subjective assumptions, including (a) the expected volatility of the underlying common stock, (b) the expected term of the award, (c) the risk-free interest rate, and (d) expected dividends. Due to the lack of a public market for the trading of its common stock and a lack of company-specific historical and implied volatility data, the Company based its estimate of expected volatility on the historical volatility of a group of companies in the pharmaceutical and biotechnology industries in a similar stage of development as the Company that are publicly traded. For these analyses, the Company selected companies with comparable characteristics to its own including enterprise value, risk profiles and with historical share price information sufficient to meet the expected life of the stock-based awards. The Company computes the historical volatility data using the daily closing prices for the selected companies' shares during the equivalent period of the calculated expected term of its stock-based awards. The Company will continue to apply this process until a sufficient amount of historical information regarding the volatility of its own stock price becomes available. The

## Notes to Consolidated Financial Statements (Continued)

(In thousands, except share and per share information)

## 7. Stock-based Compensation (Continued)

Company estimated the expected life of its employee stock options using the “simplified” method, whereby, the expected life equals the average of the vesting term and the original contractual term of the option. The risk-free interest rates for periods within the expected life of the option are based on the U.S. Treasury yield curve in effect during the period the options were granted.

The Company was historically required to estimate forfeitures at the time of grant, and revise those estimates in subsequent periods if actual forfeitures differ from estimates. The Company used historical data to estimate pre-vesting option forfeitures and record stock-based compensation expense only for those awards that are expected to vest. To the extent that actual forfeitures differ from its estimates, the difference was recorded as a cumulative adjustment in the period the estimates were revised. Stock-based compensation expense recognized in the financial statements is based on awards that are ultimately expected to vest. Upon adopting ASU 2016-09 on January 1, 2017, the Company elected to account for forfeitures as they occur. The adoption did not have a material impact on the Company’s financial position, results of operations or cash flows.

The grant date fair value of awards subject to service-based vesting, net of estimated forfeitures, is recognized ratably over the requisite service period, which is generally the vesting period of the respective awards. The Company’s stock option awards typically vest over a service period that ranges from three to four years and includes awards with one year cliff vesting followed by ratably monthly and quarterly vesting thereafter and ratably monthly vesting beginning on the grant date.

The unvested portion of stock options granted to non-employees are subject to remeasurement at subsequent reporting periods.

During the years ended December 31, 2017, 2016 and 2015, the Company granted 1,112,717, 164,229 and 900,167 common stock option awards to certain directors, employees and non-employees, respectively.

Using the Black-Scholes option pricing model, the weighted average grant date fair value of options granted to employees and directors during the year ended December 31, 2017 was \$4.98.

The fair value of share options granted to employees and directors was estimated at the date of grant using the Black-Scholes option pricing model with the following weighted-average assumptions:

	Year ended December 31,		
	2017	2016	2015
Risk- free interest rate	1.97%	1.39%	1.84%
Expected term (in years)	5.95	6.25	5.93
Expected volatility	66.18%	74.20%	66.50%
Expected dividend yield	—	—	—

Using the Black-Scholes option pricing model, the weighted average grant date fair value of options granted to non-employees during the year ended December 31, 2017 was \$5.25.

Rhythm Pharmaceuticals, Inc.

Notes to Consolidated Financial Statements (Continued)

(In thousands, except share and per share information)

7. Stock-based Compensation (Continued)

The fair value of share options granted to non-employees was estimated at the date of grant using the Black-Scholes option pricing model with the following weighted-average assumptions:

	Year ended December 31,		
	2017	2016	2015
Risk-free interest rate	2.27%	1.58%	2.25%
Expected term (in years)	10.00	10.00	10.00
Expected volatility	74.91%	71.18%	75.70%
Expected dividend yield	—	—	—

A summary of the Company's common stock option activity for the year ended December 31, 2017 is as follows:

	Number of Options	Weighted Average Exercise Price	Weighted- Average Remaining Contractual Term	Aggregate Intrinsic Value
Outstanding as of December 31, 2016	1,064,396	\$ 5.32	9.02	\$ —
Granted	1,112,717	8.22	—	—
Exercised	(152,671)	4.59	—	588
Cancelled	(191,803)	6.27	—	—
Outstanding as of December 31, 2017	1,832,639	\$ 7.04	8.48	\$ 40,382
Options vested and expected to vest as of December 31, 2017	1,832,639	\$ 7.04	8.48	\$ 40,382
Options exercisable at December 31, 2017	535,416	\$ 5.53	6.98	\$ 12,598

The following summarizes information about stock options at December 31, 2017 by range of exercise prices:

Range of Exercise Prices	Number Outstanding	Weighted Average Remaining Contractual Term	Weighted Average Exercise Price	Number Exercisable	Weighted Average Exercise Price
\$4.59 \$6.05	650,851	7.26	\$ 4.79	309,174	\$ 4.59
\$6.14 \$6.88	930,958	9.34	6.59	143,650	6.41
\$7.52 \$30.51	250,830	8.44	14.54	82,592	7.52
	1,832,639	8.48	\$ 7.04	535,416	\$ 5.53

Under the Plan, the Company recorded stock-based compensation of \$2,084, \$993 and \$192 during the year ended December 31, 2017, 2016 and 2015, respectively, that consists of stock-based compensation expense for stock options granted to (or modified for) employees and directors of \$1,859, \$277 and \$39, respectively, and stock options granted to non-employees and employees of the Motus entity that are allocated to the Company of \$225, \$716 and \$153, respectively.

## Notes to Consolidated Financial Statements (Continued)

(In thousands, except share and per share information)

## 7. Stock-based Compensation (Continued)

During 2017, there were three awards subject to modification accounting under ASC 718-20-35-3 through 35-4. Per terms of separation with a former employee, three months of accelerated vesting was granted for the former employee's three stock option awards. As a result, the Company recognized incremental expense for the stock option awards of \$254.

As of December 31, 2017, the Company has unrecognized compensation cost of \$6,599 related to non-vested employee, non-employee and director awards that is expected to be recognized over a weighted-average period of 2.79 years.

The following table summarizes the classification of the Company's stock-based compensation expenses related to the Plan recognized in the Company's statements of operations and comprehensive loss.

	Year Ended		
	December 31,		
	2017	2016	2015
Research and development	\$ 775	\$ 343	\$ 68
Selling, general, and administrative	1,309	650	124
Total	<u>\$ 2,084</u>	<u>\$ 993</u>	<u>\$ 192</u>

## LLC Incentive Plan

The Company was allocated stock compensation expense from the LLC entity's plan using the same proportional use basis for other shared costs (see Note 2). The following table summarizes the classification of the Company's stock-based compensation expenses related to the costs allocated from the LLC's Plan recognized in the Company's statements of operations and comprehensive loss.

	Year Ended		
	December 31,		
	2017	2016	2015
Research and development	\$ 152	\$ 163	\$ 76
General and administrative	42	12	30
Total	<u>\$ 194</u>	<u>\$ 175</u>	<u>\$ 106</u>

The remainder of this Note discloses the stock-based compensation activity of the Predecessor Company and the LLC entity.

## Original Plan

The Predecessor Company had one stock based compensation plan—the 2010 equity incentive plan, as amended (the "Original Plan"). The Original Plan previously provided for the grant of incentive and non-qualified stock options and restricted stock grants to employees, consultants, advisors and directors, as determined by the board of directors of the Predecessor Company.

**Notes to Consolidated Financial Statements (Continued)**

**(In thousands, except share and per share information)**

**7. Stock-based Compensation (Continued)**

As a result of the Corporate Reorganization, all outstanding option grants under the Original Plan were cancelled. Each holder of a stock option that was cancelled was issued a restricted common unit of the LLC entity in its place on a one-for-one basis. Restricted common unit vesting agreements were contracted between the LLC entity and the restricted common unit holder granting the holder the same vesting terms as originally granted in the respective option agreement. Any unvested portion of the stock option at the Corporate Reorganization would continue to vest under those original time frames and conditions. Exercise prices were eliminated as they are not applicable to common unit instruments, and all equity incentive grants after the Corporate Reorganization were of restricted common units.

The holder of a restricted common unit is entitled to one vote per unit. After the payment of all preferential amounts to the holders of the convertible preferred units, the holder of a restricted common unit is entitled to his pro rata share of the remaining consideration, if any, based on the number of restricted common units held by the holder.

***Restricted Common Units***

Upon the Corporate Reorganization, all 615,685 common stock options of the Predecessor Company under the Original Plan outstanding as of March 21, 2013 were exchanged on a one-for-one basis for 615,685 restricted common units of the LLC entity. Vesting continued on the same schedule as originally granted per the respective option agreement. At the time of the exchange, the LLC entity determined the fair value of a restricted common unit to be \$1.21 per unit, equivalent to the fair value of a common unit. The fair value of stock options immediately prior to the Corporate Reorganization was determined using a Black-Scholes option pricing model and ranged in value from \$0.48 to \$0.64. The exchange was accounted for by the LLC entity as a modification in accordance with ASC 718, with the incremental fair value determined to be \$255, of which \$99 was recognized immediately upon the Corporate Reorganization for the portion related to the vested awards, and the remaining \$156 will be recognized over the remaining service period of the restricted common units, net of estimated forfeitures. No common stock options were issued by the Relamorelin Company under the Original Plan subsequent to the Corporate Reorganization.

All restricted common units granted subsequent to the Corporate Reorganization were valued at the fair value of the LLC entity's common unit on the date of grant and will be expensed over their respective service period. Forfeitures are required to be estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. The term "forfeitures" is distinct from "cancellations" and represents only the unvested portion of the surrendered unit. Ultimately, the actual expense recognized over the vesting period will only be for those options that vest.

## Notes to Consolidated Financial Statements (Continued)

(In thousands, except share and per share information)

## 7. Stock-based Compensation (Continued)

A summary of the LLC entity's restricted common unit activity for the year ended December 31, 2017 is as follows:

	Number of Units	Weighted- Average Grant Date Fair Value Per Unit
Outstanding unvested as of December 31, 2016	94,617	\$ 3.31
Granted	—	—
Vested	(71,048)	2.73
Cancelled	—	—
Outstanding unvested as of December 31, 2017	<u>23,569</u>	<u>\$ 5.06</u>

The LLC entity recorded total stock-based compensation expense for restricted common units granted to employees, directors and non-employees of \$194, \$221 and \$337 during the years ended December 31, 2017, 2016 and 2015, respectively. The total fair value of restricted common units vested during the years ended December 31, 2017, 2016 and 2015 was \$194, \$208 and \$309, respectively. As of December 31, 2017, we have unrecognized compensation expense related to the unvested portion of these awards of \$119, and we expect to recognize this amount over a weighted-average period of approximately 0.8 years.

**2017 Employee Stock Purchase Plan**

The Company's board of directors has adopted and the Company's stockholders have approved the 2017 Employee Stock Purchase Plan (the "2017 ESPP"), which became effective in connection with the completion of the Company's IPO in October 2017. A total of 272,841 shares of common stock were reserved for issuance under this plan. In addition, The number of shares authorized under the ESPP will be increased each January 1, commencing on January 1, 2019 and ending on (and including) January 1, 2027, by an amount equal to the lesser of 1% of outstanding shares as of the end of the immediately preceding fiscal year and 682,102. Notwithstanding the foregoing, our board of directors may act prior to January 1 of a given year to provide that there will be no such January 1 increase in the number of shares authorized under the ESPP for such year, or that the increase in the number of shares authorized under the ESPP for such year will be a lesser number than would otherwise occur pursuant to the preceeding sentence. No shares were issued under this plan during the year ended December 31, 2017.

**8. Significant Agreements****License Agreements**

The Predecessor Company entered into a license agreement on February 26, 2010 with Ipsen Pharma, S.A.S. ("Ipsen") that granted full worldwide right for two programs that include the clinical candidates setmelanotide, which is in Phase 3 clinical trials, and relamorelin, which has completed a Phase 2 clinical trial. As a result of the Corporate Reorganization described in Note 1, the Ipsen license was converted to separate license agreements for the setmelanotide program held by the Company and the relamorelin program held by the Relamorelin Company, respectively. Under the terms of the

**Notes to Consolidated Financial Statements (Continued)**

**(In thousands, except share and per share information)**

**8. Significant Agreements (Continued)**

setmelanotide Ipsen license agreement, assuming that setmelanotide is successfully developed, receives regulatory approval and is commercialized, Ipsen may receive aggregate payments of up to \$40,000 upon the achievement of certain development and commercial milestones and royalties on future product sales in the mid-single digits. Substantially all of such aggregate payments of up to \$40,000 are for milestones that may be achieved no earlier than first commercial sale of setmelanotide. In the event that the Company executes a sublicense agreement, it shall make payments to Ipsen, depending on the date of such sublicense agreement, ranging from 10% to 20% of all revenues actually received under such sublicense agreement.

In connection with this license agreement, the LLC entity issued two warrants in March 2010 to an affiliate of Ipsen to purchase a total of 489,500 common units. These warrants were vested in full in 2010 and 2011, respectively. In July 2015, the warrant agreement was amended to extend the expiration date to July 31, 2015 as the original warrant agreement expired in March 2015. In July 2015, an affiliate of Ipsen elected to exercise these warrants in full for a total of 489,500 common units of the LLC entity. In July 2015, upon exercise, warrant expense of \$923 was allocated to the Company relating to the modification of these warrants and is included within research and development expense.

In January 2016, the Company entered into a licensing agreement with Camurus AB, or Camurus, for the use of Camurus' drug delivery technology. The contract includes a non-refundable and non-creditable signing fee of \$500, which was paid during January 2016. The Camurus Agreement also includes up to \$7,750 in one-time, non-refundable development milestones achievable upon certain regulatory successes. The Company is also required to pay to Camurus royalties, mid to mid-high single digit, on a product-by-product and country-by-country basis of annual net sales, until the later of (i) 10 years after the date of first commercial sale of such product in such country; or (ii) the expiration of the last to expire valid claim of all licensed patent rights in such country covering such product. The Company is also required to pay one-time, non-refundable, non-creditable sales milestones upon the achievement of certain sales levels for such product and cannot be in excess of \$57,000.

In March 2017, the Company achieved the first milestone event associated with this license agreement. The Company completed the first manufactured batch using the Camurus drug delivery technology and filed an investigational new drug application with the FDA. The fee associated with this first milestone was \$250 and was recorded as research and development expense.

In December 2017, the Company achieved the second milestone event associated with this license agreement. The Company completed the Phase I proof of concept study using the Camurus drug delivery technology. The fee associated with this second milestone was \$1,000 and was recorded as research and development expense.

**9. Commitments and Contingencies**

The Company is not a party to the lease for the facility it previously shared with the Relamorelin Company. In November 2015, the Company entered into a Lease Agreement for an office facility at 500 Boylston Street, Boston, Massachusetts. The lease term commenced in May 2016 and has a term of 5 years with a five -year renewal option to extend the lease. Rent expense for the years ended December 31, 2017 and 2016 was \$215 and \$179, respectively.

## Notes to Consolidated Financial Statements (Continued)

(In thousands, except share and per share information)

## 9. Commitments and Contingencies (Continued)

Future minimum payments under the Lease Agreement as of December 31, 2017, are as follows:

2018	\$	298
2019		305
2020		311
2021		131
Total	\$	<u>1,045</u>

## 10. Related-Party Transactions

The Company shared costs with the Relamorelin Company, its affiliate, including payroll, facilities, information technology and other research and development and general and administrative overhead costs. Additionally, the Relamorelin Company had paid certain Company expenses directly on behalf of the Company. Shared costs incurred by the Relamorelin Company and Company expenses paid by the Relamorelin Company on behalf of the Company are allocated from the Relamorelin Company to the Company as described in Note 1 and Note 2. These net costs totaled \$1,570 and \$2,149 for the years ended December 31, 2016 and 2015, respectively. The Relamorelin Company was sold to a large pharmaceutical company on December 15, 2016.

The LLC made payments on behalf of the Company totaling \$105 related to allocated 2016 employee bonuses. Those costs are recorded as a payable due to the LLC entity from the Company at December 31, 2016 on the balance sheet.

Expenses paid directly by the Company to consultants considered to be related parties amounted to \$2,400, \$619 and \$153 for the years ended December 31, 2017, 2016 and 2015, respectively. Outstanding payments due to these related parties as of December 31, 2017 and 2016 were \$90 and \$50, respectively and were included within Accounts payable on the balance sheet. Expenses paid by the Relamorelin Company to these related parties amounted to zero, \$966 and \$1,357 for the years ended December 31, 2017, 2016 and 2015, respectively.

Employees of certain holders of series A and series B convertible preferred units of the LLC entity, have been retained as consultants supporting development activities of the Company and the Relamorelin Company for which the holders are paid cash compensation pursuant to consulting arrangements. Compensation payments related to these consultants totaled \$97, \$78 and \$125 for the years ended December 31, 2017, 2016 and 2015, respectively.

## 11. Income Tax

In the Company's financial statements, income taxes, including deferred tax balances, have been calculated on a separate tax return basis. Certain of the Company's activities and costs have been included in the tax returns filed by the Relamorelin Company and the LLC entity. Prior to the Corporate Reorganization, the Company's operations were included in the tax returns filed by the Predecessor Company. The Company has filed tax returns on its own behalf since the Corporate Reorganization.

## Notes to Consolidated Financial Statements (Continued)

(In thousands, except share and per share information)

## 11. Income Tax (Continued)

For the years ended December 31, 2017 and 2016, the Company did not have a current or deferred income tax expense or benefit as the entity has incurred losses since inception and has provided a full valuation allowance against its deferred tax assets.

A reconciliation of the income tax benefit at the federal statutory tax rate to the Company's effective income tax rate follows:

	As of December 31,		
	2017	2016	2015
Statutory tax rate	34.00%	34.00%	34.00%
State tax, net of federal benefit	4.08%	2.63%	4.33%
Research and development credit	1.87%	1.34%	0.85%
Orphan drug credit	2.29%	2.15%	1.91%
Non deductible deferred issuance costs	—%	(2.40)%	—%
Tax law change	(27.98)%	—%	—%
Stock compensation	(1.84)%	—%	—%
Investor instrument revaluation	(1.88)%	—%	—%
Non deductible warrant expense	—%	—%	(2.82)%
Other	(0.07)%	(1.32)%	(2.23)%
Change in valuation allowance	(10.47)%	(36.40)%	(36.04)%
Effective tax rate	—%	—%	—%

The principal components of the Company's deferred tax assets are as follows:

	As of December 31,	
	2017	2016
Deferred tax assets:		
Net operating loss carryforwards	\$ 18,325	\$ 17,248
Research and development credits	2,317	1,214
Orphan drug credit	2,333	1,164
Capitalized license fee	500	600
Other	599	262
Total gross deferred tax assets	24,074	20,488
Valuation allowance	(24,074)	(20,488)
Net deferred tax assets	\$ —	\$ —

On December 22, 2017, the Tax Cuts and Jobs Act ("The Act"), was signed into law. The Act includes a number of provisions, including the lowering of the U.S. corporate tax rate from 34% to 21%, effective January 1, 2018 and the establishment of a territorial-style system for taxing foreign source income of domestic multinational corporations. The Company is in the process of quantifying the tax impacts of The Act. As a result of The Act, the Company expects there will be one-time adjustments for the re-measurement of deferred tax assets (liabilities). Given the Company's full valuation allowance as of December 31, 2017, the Company does not expect the adjustment to materially impact the Company's

Notes to Consolidated Financial Statements (Continued)

(In thousands, except share and per share information)

11. Income Tax (Continued)

income tax provision or balance sheet. On December 22, 2017, the SEC staff issued Staff Accounting Bulletin No. 118, Income Tax Accounting Implications of the Tax Cuts and Jobs Act, or SAB 118, which allows the recording of provisional amounts during a measurement period not to extend beyond one year of the enactment date. In accordance with SAB 118, we have determined that our deferred tax asset value and associated valuation allowance reduction of \$9,432 is a provisional amount and a reasonable estimate at December 31, 2017. The final impact may differ from this provisional amount due to, among other things, changes in interpretations and assumptions we have made thus far and the issuance of additional regulatory or other guidance. We expect to complete the final impact within the measurement period. The Company has quantified the impact of the rate reduction from 34% to 21% in its balance sheet.

ASC 740 requires a valuation allowance to reduce the deferred tax assets reported if, based on the weight of available evidence, it is more likely than not that some portion or all of the deferred tax assets will not be realized. After consideration of all the evidence, both positive and negative, the Company has recorded a full valuation allowance against its deferred tax assets at December 31, 2017 and 2016, because the Company's management has determined that it is more likely than not that these assets will not be realized. The increase in the valuation allowance of \$3,586 in 2017 and \$9,417 in 2016 primarily relates to the net loss incurred by the Company during each period, partially offset by the federal rate reduction from 34% to 21% as a result of The Act in 2017.

As of December 31, 2017, the Company had federal and state net operating loss carryforwards of approximately \$73,109 and \$3,763, respectively, which are available to reduce future taxable income. The net operating loss carryforwards expire at various times beginning in 2033 for federal and state purposes.

As of December 31, 2017, the Company had federal and state research tax credits of approximately \$1,925 and \$496, respectively, which may be used to offset future tax liabilities. Additionally, as of December 31, 2017, the Company had a federal orphan drug credit related to qualifying research of \$2,333. These tax credit carryforwards will begin to expire at various times beginning in 2033 for federal purposes and 2028 for state purposes.

The net operating loss and tax credit carryforwards are subject to review and possible adjustment by the Internal Revenue Service and state tax authorities. Net operating loss and tax credit carryforwards may become subject to an annual limitation in the event of certain cumulative changes in the ownership interest of significant stockholders over a three-year period in excess of 50%, as defined under Sections 382 and 383 of the Internal Revenue Code, respectively, as well as similar state provisions and other provisions within the Internal Revenue Code. This could limit the amount of tax attributes that can be utilized annually to offset future taxable income or tax liabilities. The amount of the annual limitation is determined based on the value of the Company immediately prior to the ownership change. Subsequent ownership changes may further affect the limitation in future years.

The Company has not recorded any reserves for uncertain tax positions as of December 31, 2017 and 2016. The Company has not, as yet, conducted a study of research and development credit carryforwards. This study may result in an adjustment to the Company's research and development credit carryforwards; however, until a study is completed and any adjustment is known, no amounts are being presented as an uncertain tax position. A full valuation allowance has been provided against the Company's research and development credits and, if an adjustment is required, this adjustment would be offset by an adjustment to

## Notes to Consolidated Financial Statements (Continued)

(In thousands, except share and per share information)

**11. Income Tax (Continued)**

the valuation allowance. Thus, there would be no impact to the balance sheets or statements of operations and comprehensive loss if an adjustment were required.

Interest and penalty charges, if any, related to unrecognized tax benefits will be classified as income tax expense in the accompanying statements of operations and comprehensive loss. As of December 31, 2017 and 2016, the Company had no accrued interest or penalties related to uncertain tax positions.

The Company is subject to examination by the U.S. federal, state and local income tax authorities for tax years 2013 forward. The Company is not currently under examination by the Internal Revenue Service or any other jurisdictions for any tax years.

**12. Retrospective Adoption of New Accounting Standard**

In November 2016, the FASB issued ASU No. 2016-18, Statement of Cash Flows (Topic 230): Restricted Cash (“ASU 2016-18”) that changes the presentation of restricted cash and cash equivalents on the statement of cash flows. ASU 2016-18 requires that restricted cash and restricted cash equivalents be included with cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on the statement of cash flows. This amendment is effective for fiscal years beginning after December 15, 2017, including interim periods within those fiscal years, and is applied using retrospective transition method. We adopted ASU on January 1, 2018 and have applied its content to the statement of cash flows for the years ended December 31, 2015, 2016 and 2017 presented herein.

**13. Selected Quarterly Financial Data (unaudited)**

The following table contains selected quarterly financial information from 2017 and 2016. The Company believes that the following information reflects all normal recurring adjustments necessary for a fair statement of the information for the periods presented. The operating results for any quarter are not necessarily indicative of results for any future period.

	Three months ended			
	March 31, 2017	June 30, 2017	September 30, 2017	December 31, 2017
Total revenue	\$ —	\$ —	\$ —	\$ —
Total operating expenses	6,389	6,754	8,286	10,983
Other income (expense), net:	29	(48)	(1,730)	452
Net loss and comprehensive loss	(6,360)	(6,802)	(10,016)	(10,531)
Net loss attributable to common stockholders	\$ (7,526)	\$ (8,008)	\$ (11,429)	\$ (10,619)
Net loss attributable to common stockholders per common share, basic and diluted	\$ (0.74)	\$ (0.78)	\$ (1.78)	\$ (0.41)

Rhythm Pharmaceuticals, Inc.

Notes to Consolidated Financial Statements (Continued)

(In thousands, except share and per share information)

13. Selected Quarterly Financial Data (unaudited) (Continued)

	Three months ended			
	March 31, 2016	June 30, 2016	September 30, 2016	December 31, 2016
Total revenue	\$ —	\$ —	\$ —	\$ —
Total operating expenses	5,391	5,738	6,401	8,375
Other income (expense), net:	6	8	10	9
Net loss and comprehensive loss	(5,385)	(5,730)	(6,391)	(8,366)
Net loss attributable to common stockholders	<u>\$ (6,183)</u>	<u>\$ (6,528)</u>	<u>\$ (7,191)</u>	<u>\$ (9,172)</u>
Net loss attributable to common stockholders per common share, basic and diluted	<u>\$ (0.61)</u>	<u>\$ (0.64)</u>	<u>\$ (0.71)</u>	<u>\$ (0.90)</u>

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