OvaScience, Inc.
Form 10-Q
May 03, 2018
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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-Q
(Mark
One)

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

For the quarterly period ended March 31, 2018

OR

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

For the transition period from to

Commission file number: 001-35890

OVASCIENCE, INC.
(Exact name of registrant as specified in its charter)

Delaware	45-1472564
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
9 4th Avenue Waltham, Massachusetts	02451
(Address of principal executive offices)	(Zip Code)

617-500-2802
(Registrant's telephone number, including area code)

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

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate website, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes x No o

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated

filer," "smaller reporting company" and emerging growth company in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer o	Accelerated filer x
Non-accelerated filer o (Do not check if a smaller reporting company)	Smaller reporting company o
Emerging Growth Company o	

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

As of April 30, 2018, there were 35,758,907 shares of the registrant's Common Stock, par value $0.001 per share, outstanding.

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For the Quarterly Period Ended March 31, 2018
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Part I. Financial Information
Item 1. Financial Statements

OvaScience, Inc.
Condensed Consolidated Balance Sheets
(Unaudited)
(In thousands, except share and per share data)

	As of March 31, 2018	As of December 31, 2017
Assets		
Current assets:		
Cash and cash equivalents	$19,721	$ 15,703
Short-term investments	38,577	51,500
Prepaid expenses and other current assets	835	1,578
Total current assets	59,133	68,781
Property and equipment, net	2,935	3,113
Investment in joint venture	146	146
Long-term restricted cash	791	789
Other long-term assets	24	24
Total assets	$63,029	$ 72,853
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	$1,024	$ 2,242
Accrued expenses and other current liabilities	4,008	5,562
Total current liabilities	5,032	7,804
Other non-current liabilities	664	751
Total liabilities	5,696	8,555
Commitments and contingencies (Note 10)		
Stockholders' equity:		
Preferred stock, $0.001 par value; 5,000,000 shares authorized, no shares issued and outstanding	—	—
Common stock, $0.001 par value; 100,000,000 shares authorized; 35,758,907 and 35,725,230 shares issued and outstanding at March 31, 2018 and December 31, 2017, respectively	36	36
Additional paid-in capital	366,178	365,769
Accumulated other comprehensive loss	(31)	(27)
Accumulated deficit	(308,850)	(301,480)
Total stockholders' equity	57,333	64,298
Total liabilities and stockholders' equity	$63,029	$ 72,853

See accompanying notes.

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OvaScience, Inc.
Condensed Consolidated Statements of Operations and Comprehensive Loss
(Unaudited)
(In thousands, except per share data)

	Three Months Ended March 31,	
	2018	2017
Revenues	$67	$63
Costs and expenses:		
Costs of revenues	112	269
Research and development	2,621	5,764
Selling, general and administrative	4,224	7,129
Restructuring	692	1,488
Total costs and expenses	7,649	14,650
Loss from operations	(7,582)	(14,587)
Interest income, net	191	182
Other income (expense), net	21	(60)
Loss from equity method investment	—	(421)
Loss before income taxes	(7,370)	(14,886)
Income tax expense	—	9
Net loss	$(7,370)	$(14,895)
Net loss per share—basic and diluted	$(0.21)	$(0.42)
Weighted average number of shares used in net loss per share—basic and diluted	35,726	35,642
Net loss	$(7,370)	$(14,895)
Other comprehensive loss:		
Unrealized gains (losses) on available-for-sale securities	(4)	1
Comprehensive loss	$(7,374)	$(14,894)

See accompanying notes.

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OvaScience, Inc.
Condensed Consolidated Statements of Cash Flows
(Unaudited)
(In thousands)

	Three Months Ended March 31,	
	2018	2017
Cash flows from operating activities:		
Net loss	$(7,370)	(14,895)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	330	461
Amortization of (discount) premium on debt securities	(35)	27
Stock-based compensation expense	382	1,360
Issuance of common stock for director fees	27	38
Net loss on equity method investment	—	421
Changes in operating assets and liabilities:		
Prepaid expenses and other assets	743	458
Accounts payable	(1,370)	184
Accrued expenses, deferred rent and other non-current liabilities	(1,641)	(3,239)
Net cash used in operating activities	(8,934)	(15,185)
Cash flows from investing activities:		
Purchases of plant and equipment	—	(75)
Maturities of short-term investments	29,200	23,325
Purchases of short-term investments	(16,246)	(26,562)
Net cash provided by (used in) investing activities	12,954	(3,312)
Cash flows from financing activities:		
Net cash provided by financing activities	—	—
Net decrease in cash, cash equivalents and restricted cash	4,020	(18,497)
Cash, cash equivalents and restricted cash at beginning of period	16,492	44,369
Cash, cash equivalents and restricted cash at end of period	$20,512	$25,872
Supplemental disclosure of non-cash investing activity		
Additions of property and equipment included in accounts payable	$152	$26

The following table provides a reconciliation of cash, cash equivalents and restricted cash to amounts reported within the condensed consolidated balance sheets.

	As of March 31, 2018	As of March 31, 2017
Cash and cash equivalents	$19,721	$ 25,433
Restricted cash	791	439
Total cash, cash equivalents and restricted cash	$20,512	$ 25,872

See accompanying notes.

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OvaScience, Inc.
Notes to Unaudited, Condensed Consolidated Financial Statements

1. Organization

OvaScience, Inc., incorporated on April 5, 2011 as a Delaware corporation, is a company focused on the development of new treatment options for women and couples struggling with infertility. Each OvaScience treatment is based on the company's proprietary technology platform that leverages the discovery of egg precursor, or EggPC℠, cells. As used in these consolidated financial statements, the terms "OvaScience," "the Company," "we," "us," and "our" refer to the business of OvaScience, Inc. and its wholly owned subsidiaries. Our operations to date have been limited to organizing and staffing our company, business planning, raising capital, acquiring and developing our technology, identifying potential fertility treatments, developing the OvaPrime℠ treatment, the OvaTure℠ treatment and the AUGMENT℠ treatment, introducing AUGMENT in select international in vitro fertilization ("IVF") clinics and determining the regulatory and development path for our fertility treatments. We have generated limited revenues to date, and do not anticipate significant revenues in the near term. On June 21, 2017, we announced that we would continue to focus on advancing OvaPrime in clinical development and OvaTure in preclinical development and would discontinue ongoing efforts related to the AUGMENT treatment outside of North America. To better align our organization with these strategic priorities, we restructured our workforce and reduced our workforce by approximately 50%. On January 3, 2018, we announced a further restructuring of our organization and a workforce reduction of approximately 50%. On May 3, 2018, we announced that our board of directors had approved a corporate restructuring plan furthering its on-going efforts to effectively align Company resources. Additionally, our management team and board of directors have initiated a process to explore a range of strategic alternatives for enhancing shareholder value, including the potential sale or merger of the Company. In connection with the restructuring plan, the Company plans to reduce its workforce by approximately 70%, with the majority of the reduction in personnel expected to be completed by June 30, 2018. As a result, we expect to realize annualized cost savings beginning in the fourth quarter of 2018. We estimate that we will incur one-time costs of approximately $0.5 million to $1.0 million in the form of termination benefits and retention arrangements related to the restructuring plan.

We are subject to a number of risks similar to other life science companies, including, but not limited to, risks associated with clinical and preclinical development, the need to develop and obtain marketing approval for certain of our fertility treatments, competitors developing new technological innovations, the need to successfully commercialize and gain market acceptance of our fertility treatments and protection of proprietary technology, and the outcome of our exploration of strategic alternatives. If we do not successfully develop and commercialize any of our fertility treatments, we will be unable to generate treatment revenue or achieve profitability. As of March 31, 2018, we had an accumulated deficit of approximately $308.9 million.

Liquidity

We have incurred annual net operating losses in each year since our inception. We have generated limited treatment revenues related to our primary business purpose and have financed our operations primarily through private placements of our preferred stock, which was subsequently converted to common stock, and public sales of our common stock and interest income earned on cash, cash equivalents, and short-term investments balances.

We have devoted substantially all of our financial resources and efforts to the research and development of our OvaPrime and OvaTure fertility treatments and the introduction of AUGMENT in select international IVF clinics. We expect to continue to incur significant expenses related to the research and development of OvaPrime and OvaTure and incur operating losses for the next several years.

We believe that our cash, cash equivalents and short-term investments of $58.3 million at March 31, 2018, will be sufficient to fund our current operating plan for at least the next 12 months from the date of filing this Form 10-Q. There can be no assurances, however, that the current operating plan will be achieved or that additional funding, if needed, will be available on terms acceptable to us, or at all.

2. Basis of presentation and significant accounting policies

Basis of Presentation

The accompanying interim unaudited condensed consolidated financial statements have been prepared by us in accordance with accounting principles generally accepted in the United States of America ("US GAAP"). These condensed consolidated financial statements include our accounts and the accounts of our wholly-owned subsidiaries. All intercompany transactions have been eliminated in consolidation.

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Certain information and footnote disclosures normally included in our annual financial statements have been omitted. In the opinion of management, the unaudited interim financial statements reflect all adjustments, which with the exception of restructuring accruals described in Note 9, consisted of normal and recurring adjustments, necessary for the fair presentation of our financial position at March 31, 2018, results of our operations and cash flows for the three months ended March 31, 2018 and 2017.

The results for the three months ended March 31, 2018 are not necessarily indicative of future results. These condensed consolidated financial statements should be read in conjunction with the audited financial statements for the year ended December 31, 2017, which are contained in our Annual Report on Form 10-K for the year ended December 31, 2017 ("2017 Annual Report on Form 10-K") that was filed with the Securities and Exchange Commission ("SEC") on March 15, 2018.

Use of estimates and summary of significant accounting policies

These condensed consolidated financial statements are presented in conformity with US GAAP, which requires management to make estimates and assumptions that affect the amounts reported in the condensed consolidated financial statements and accompanying notes. Actual results could differ from those estimates.

Our significant accounting policies are described in Note 2, "Summary of Significant Accounting Policies," in our 2017 Annual Report on Form 10-K.

Net loss per share

Basic and diluted net loss per common share are calculated by dividing net loss by the weighted average number of shares outstanding during the period. Potentially dilutive shares, including outstanding stock options and unvested restricted stock units, are only included in the calculation of diluted net loss per share when their effect is dilutive. The amounts in the table below were excluded from the calculation of diluted net loss per share due to their anti-dilutive effect (in thousands):

	As of March 31,	
	2018	2017
Outstanding stock options and restricted stock units	6,356	5,468

Collaborations

In December 2013, we entered into a collaboration agreement, the OvaTure Collaboration, with Intrexon Corporation, or Intrexon, governing the use of Intrexon's synthetic biology technology platform for the accelerated development of our OvaTure platform. The OvaTure Collaboration provided that Intrexon would deliver laboratory and animal data to support the successful filing of an IND for OvaTure.

We participated as an equal member on the Joint Steering Committee, or JSC and Intellectual Property Committee, or IPC. The JSC agreed upon the services and the activities to be included in the work plan, and the IPC had authority over intellectual property matters. We had the tie-breaking vote if there were any disputes with the JSC.

On February 1, 2018, we provided Intrexon with written notice of termination of the OvaTure Collaboration. We believed that we could continue the development of OvaTure by building out our internal capabilities and expertise under the leadership of Dr. James Lillie, our Chief Scientific Officer, and engaging with contract research organizations that have specific, complementary capabilities to our own.

Recent accounting pronouncements

In November 2016, the FASB issued ASU No. 2016-18, Statement of Cash Flows (Topic 230) - Restricted Cash. ASU 2016-18 requires that a statement of cash flows explain the change during the period in the total of cash, cash equivalents, and amounts generally described as restricted cash or restricted cash equivalents. This update is effective for fiscal years beginning after December 15, 2017, and interim periods within those fiscal years using a retrospective transition method to each period presented. The Company adopted this standard as of January 1, 2018 on a retrospective basis, which resulted in the recast of the prior reporting period in the statement of cash flows. For the three months ended March 31, 2018 and 2017, $0.8 million and $0.8 million, respectively, of restricted cash is included in the total of cash and restricted cash balance at the end of period. A reconciliation of cash and restricted cash from our condensed consolidated statement of cash flows to the amounts reported within our condensed consolidated balance sheet is also included in a table below our condensed consolidated statement of cash flows.

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In August 2016, the FASB issued ASU No. 2016-15, Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments. ASU 2016-15 requires changes in the presentation of debt prepayment or debt extinguishment costs, contingent consideration payments made after a business combination, proceeds from the settlement of insurance claims, proceeds from the settlement of corporate-owned life insurance policies and distributions received from equity method investees. This update is effective for annual and interim periods beginning after December 15, 2017 using a retrospective transition method to each period presented. We adopted this standard as of January 1, 2018 with no material impact on our consolidated financial statements.

In February 2016, the FASB issued ASU No. 2016-02, Leases, which is intended to increase transparency and comparability among organizations by recognizing lease assets and lease liabilities on the balance sheet and disclosing key information about leasing arrangements. Under ASU 2016-02, a lessee will be required to recognize assets and liabilities for both operating and financing leases with lease terms of more than 12 months. In addition, ASU 2016-02 requires the use of the modified retrospective method, which will require adjustment to all comparative periods presented in the consolidated financial statements. The amendment is effective for annual periods beginning after December 15, 2018, and interim periods within those annual periods. Early adoption is permitted. We are currently assessing the impact ASU 2016-02 will have on our consolidated financial statements and footnote disclosures thereto.

In August 2015, the FASB issued ASU No. 2015-14 Revenue from Contracts with Customers, which defers the effective date of ASU No. 2014-09 by one year. ASU 2014-09 amends the guidance for accounting for revenue from contracts with customers. ASU 2014-09 supersedes the revenue recognition requirements in ASC Topic 605, Revenue Recognition, and creates a new Topic 606, Revenue from Contracts with Customers. This guidance is now effective for fiscal years beginning after December 15, 2017, with early adoption permitted for annual periods beginning after December 15, 2016. Two adoption methods are permitted: retrospectively to all prior reporting periods presented, with certain practical expedients permitted; or retrospectively with the cumulative effect of initially adopting the ASU 2014-09 recognized at the date of initial application. We adopted ASU 2015-14 effective January 1, 2018 and elected to adopt ASU 2015-14 using the modified retrospective approach and applied the standard only to contracts that have not yet been completed as of January 1, 2018. The impact under this methodology to our previously reported revenues is insignificant in the periods reported, and therefore the Company did not record a cumulative catch-up to deferred revenue and accumulated deficit upon adoption of the new standard on January 1, 2018.

3. OvaXon Joint Venture

In December 2013, we entered into a joint venture with Intrexon to leverage Intrexon’s synthetic biology technology platform and our technology relating to EggPC cells to focus on developing significant improvements in human and animal health. We and Intrexon formed OvaXon, LLC (“OvaXon”) to conduct the joint venture. Each party contributed $1.5 million of cash to OvaXon, each party has a 50% equity interest and all costs and profits will be split accordingly. Each party will also have 50% control over OvaXon and any disputes between us and Intrexon will be resolved through arbitration, if necessary.

Starting in August 2017, Intrexon continued bovine EggPC work for us under the OvaTure Collaboration rather than under the OvaXon joint venture (the "August 2017 Amendment"). We are in discussions with Intrexon regarding the future of the OvaXon joint venture.

OvaXon no longer qualifies as a variable interest entity as a result of the August 2017 Amendment, and our future losses associated with OvaXon are now limited. We and Intrexon have equal ability to direct the activities of OvaXon through JSC and IPC membership and 50% voting rights and therefore ability to exert significant influence over OvaXon. As we have the ability to exert significant influence over OvaXon, in accordance with ASC 323 Equity Method and Joint Ventures, we will continue to account for OvaXon under the equity method and not consolidate its financial results with ours.

We recorded losses from equity method investments related to OvaXon of a de minimis amount and $0.4 million for the three months ended March 31, 2018 and 2017, respectively. As of March 31, 2018 and December 31, 2017, our investment in OvaXon was approximately $0.1 million and $0.1 million, respectively.

4. Fair value

The fair value of our financial assets reflects our estimate of amounts that we would have received in connection with the sale of such asset in an orderly transaction between market participants at the measurement date. In connection with measuring the fair value of our assets, we seek to maximize the use of observable inputs (market data obtained from independent sources) and to minimize the use of unobservable inputs (our assumptions about how market participants would price assets and liabilities). We use the following fair value hierarchy to classify assets based on the observable inputs and unobservable inputs we used to value our assets and liabilities:

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- Level 1—quoted prices (unadjusted) in active markets for identical assets.
- Level 2—quoted prices for similar assets in active markets or inputs that are observable for the asset, either directly or indirectly through market corroboration, for substantially the full term of the financial instrument.
- Level 3—unobservable inputs based on our assumptions used to measure assets at fair value.

The following tables summarize our assets that are measured at fair value as of March 31, 2018 and December 31, 2017 (in thousands):

Description	Balance as of March 31, 2018	Level 1	Level 2	Level 3
Assets:				
Cash and money market funds	$19,721	$19,721	$—	$ —
Corporate debt securities (including commercial paper)	24,113	—	24,113	—
U.S. government securities	14,464	—	14,464	—
Total	$58,298	$19,721	$38,577	$ —

Description	Balance as of December 31, 2017	Level 1	Level 2	Level 3
Assets:				
Cash and money market funds	$ 15,703	$15,703	$—	$ —
Corporate debt securities (including commercial paper)	35,531	—	35,531	—
U.S. government securities	15,969	—	15,969	—
Total	$ 67,203	$15,703	$51,500	$ —

5. Cash, cash equivalents and short-term investments

The following tables summarize our cash, cash equivalents and short-term investments as March 31, 2018 and December 31, 2017 (in thousands):

March 31, 2018	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Cash and money market funds	$ 19,721	$ —	$ —	$ 19,721
Corporate debt				
Due in one year or less	24,140	—	(27)	24,113
U.S. government securities				
Due in one year or less	14,467	—	(3)	14,464
Total	$ 58,328	$ —	$ (30)	$ 58,298
Reported as:				
Cash and cash equivalents	$ 19,721	$ —	$ —	$ 19,721
Short-term investments	38,607	—	(30)	38,577
Total	$ 58,328	$ —	$ (30)	$ 58,298

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December 31, 2017	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Cash and money market funds	$ 15,703	$ —	$ —	$ 15,703
Corporate debt				
Due in one year or less	38,053	—	(21)	38,032
U.S. government securities				
Due in one year or less	13,474	—	(6)	13,468
Total	$ 67,230	$ —	$ (27)	$ 67,203
Reported as:				
Cash and cash equivalents	$ 15,703	$ —	$ —	$ 15,703
Short-term investments	51,527	—	(27)	51,500
Total	$ 67,230	$ —	$ (27)	$ 67,203

At March 31, 2018 and December 31, 2017, we held ten and ten debt securities that had been in an unrealized loss position for less than 12 months, respectively. At March 31, 2018 and December 31, 2017, the aggregate fair value of the securities in an unrealized loss position for less than 12 months was $20.7 million and $22.9 million, respectively. At March 31, 2018, we did not hold any investments that have been in a continuous unrealized loss position for 12 months or longer.

We evaluate our securities for other-than-temporary impairments based on quantitative and qualitative factors, and we considered the decline in market value for the ten debt securities in an unrealized loss position as of March 31, 2018, to be primarily attributable to the then current economic and market conditions. We will likely not be required to sell these securities, and do not intend to sell these securities before the recovery of their amortized cost bases, which recovery is expected within the next 12 months. Based on our analysis, we do not consider these investments to be other-than-temporarily impaired as of March 31, 2018.

As of March 31, 2018, we held $5.4 million in financial institution debt securities and other corporate debt securities located in Canada and Australia. As of December 31, 2017, we held $12.0 million in financial institution debt securities and other corporate debt securities located in Australia, Luxembourg, Japan, Norway and Sweden.

We had no realized gains or losses on our short-term investments for the three months ended March 31, 2018 and 2017.

6. Property and equipment

Property and equipment and related accumulated depreciation and amortization are as follows (in thousands):

	As of March 31, 2018	As of December 31, 2017
Laboratory equipment	$3,632	$ 3,480
Furniture	371	371
Computer equipment	208	208
Leasehold improvements	2,754	2,754
Total property and equipment, gross	6,965	6,813
Less: accumulated depreciation and amortization	(4,030)	(3,700)
Total property and equipment, net	$2,935	$ 3,113

We recorded depreciation and amortization expense of $0.3 million and $0.5 million for the three months ended March 31, 2018 and 2017, respectively.

In December 2016, we initiated a corporate restructuring and in January 2017, we commenced a search to find a buyer for certain excess fixed assets, primarily comprised of laboratory equipment. As of January 31, 2017, we met the criteria to classify such assets as held-for-sale and estimated the fair value less costs to sell these assets at $0.5 million. In June 2017, we initiated the first part of our plan to sell a portion of the fixed assets classified as held-for-sale,

consisting primarily of fixed assets located domestically. In July 2017, we completed the sale of these assets with a carrying value of $0.2 million and received net proceeds of $0.3 million. We recorded a gain on the sale of these excess assets of $0.1 million.

In February 2018, we completed the sale of the remaining $0.3 million of assets, primarily those located internationally and received net proceeds of $0.2 million. We recorded an immaterial loss on the sale of these assets, which is

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included in loss from continuing operations in our condensed consolidated statement of operations and comprehensive loss for the three months ending March 31, 2018.

7. Accrued expenses and other current liabilities

Accrued expenses and other current liabilities consist of the following as of March 31, 2018 and December 31, 2017 (in thousands):

	As of March 31, 2018	As of December 31, 2017
Compensation and related benefits	$1,028	$ 2,215
Development, site costs and contract manufacturing	484	519
Legal, audit and tax services	1,647	1,542
Consulting	171	160
Other accrued expenses and other current liabilities	678	1,126
	$4,008	$ 5,562

Other accrued expenses consist of accrued costs related to travel, equipment purchases, lab supplies and other miscellaneous costs.

8. Stock-based compensation

Stock options

A summary of our stock option activity and related information as of March 31, 2018 is as follows:

	Shares	Weighted average exercise price per share	Weighted average remaining contractual term (years)	Aggregate intrinsic value (in thousands)
Outstanding at December 31, 2017	5,745,815	$ 7.28	8.32	$ 43
Granted	1,179,877	0.96		
Forfeited/Canceled	(569,399)	—		
Outstanding at March 31, 2018	6,356,293	5.81	8.40	24
Exercisable at March 31, 2018	2,349,399	11.98	6.89	24

No stock options were exercised during the three months ended March 31, 2018 or March 31, 2017.

The fair value of each stock-based option award is estimated on the grant date using the Black-Scholes option pricing model with the following assumptions:

	Three months ended March 31,	
	2018	2017
Risk-free interest rate	2.7%	2.0-2.2%
Dividend yield	—	—
Volatility	83-85%	92%
Expected term (years)	6.1	6.1-9.9

As of March 31, 2018, we had approximately $4.0 million of total unrecognized compensation cost, related to unvested stock options, which we expect to recognize over a weighted-average period of 2.9 years.

During the three months ended March 31, 2018, we granted options to purchase 1,179,877 shares of our common stock to employees at a weighted average grant date fair value of $0.70 per share, and with a weighted average exercise price of $0.96 per share. During the three months ended March 31, 2017, we granted options to purchase

1,832,250 shares of our common stock at a weighted average grant date fair value of $1.20 per share and with a weighted average exercise price of $1.58 per share.

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We did not grant any options to purchase common stock to non-employees for the three months ended March 31, 2018. We granted 150,000 options to purchase common stock with a weighted average exercise price of $1.60 per share to non-employees for the three months ended March 31, 2017. Stock-based awards issued to non-employees are revalued at each reporting date until vested.

9. Restructuring

In December 2016, we initiated a reduction in workforce of approximately 30% in connection with our change in corporate strategy. As of December 31, 2017, we had recognized all restructuring charges related to our December 2016 restructuring activities, approximately $6.9 million comprised of $2.4 million recorded as one-time termination benefits, $1.7 million as a benefit under an ongoing benefit plan, $2.0 million of fixed asset impairment charges and $0.9 million of other restructuring related charges including legal fees and contract cancellation fees.

On June 21, 2017, we initiated a reduction in workforce of approximately 50% in connection with our decision to focus on the development and advancing of OvaPrime and OvaTure and to no longer offer the AUGMENT treatment on a commercial basis outside of North America. As of December 31, 2017, we had recognized all restructuring charges related to our June 2017 restructuring activities, approximately $2.3 million comprised of $1.7 million recorded as one-time termination benefits, $0.3 million as a benefit under an ongoing benefit plan, $0.2 million of fixed asset impairment charges and $0.1 million of other restructuring related charges including legal fees.

In January 2018, we initiated a reduction in workforce of approximately 50% in connection with a decision to streamline our operations and reduce our cost structure. During the three months ended March 31, 2018, we recognized restructuring charges of $0.7 million primarily comprised of $0.7 million of one-time termination benefits all attributable to our January 2018 restructuring activities. As of March 31, 2018, we have recognized substantially all restructuring charges related to our January 2018 restructuring activities. Our restructuring charges for the three months ended March 31, 2018, are included in our condensed consolidated statements of operations and comprehensive loss.

For the three months ended March 31, 2018, we made cash payments of $0.8 million primarily related to severance benefits and other restructuring costs, all of which relate to our January 2018 restructuring activities, respectively. For the three months ended March 31, 2017, we made cash payments of $2.2 million primarily related to severance benefits, of which all related to our December 2016 restructuring activities.

As of March 31, 2018, our restructuring accrual was $0.5 million and was recorded in accrued expenses and other current liabilities in our condensed consolidated balance sheet. Since the execution of our restructuring activities, we have incurred a total of $9.9 million of restructuring charges, of which $6.9 million relates to our December 2016 restructuring activities and $2.4 million relates to our June 2017 restructuring activities and $0.7 million to our January 2018 restructuring activities.

The following table outlines our restructuring activities for the three months ended March 31, 2018 (in thousands):

Accrued restructuring balance as of December 31, 2017	$403
Plus:	
Severance	692
Other	112
Less:	
Payments	(756)
Accrued restructuring balance as of March 31, 2018	$451

Other restructuring costs consist primarily of professional fees including legal fees and contract termination fees.

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10. Commitments and contingencies

On October 9, 2015, a purported class action lawsuit was filed in the Suffolk County Superior Court in the Commonwealth of Massachusetts against us, several of our officers and directors and certain of the underwriters from our January 2015 follow-on public offering of our common stock. The plaintiffs purported to represent those persons who purchased shares of our common stock pursuant or traceable to our January 2015 follow-on public offering. The plaintiffs alleged, among other things, that the Company made false and misleading statements and failed to disclose material information in the Company's January 2015 Registration Statement and incorporated offering materials. Plaintiffs allege violations of Sections 11, 12 and 15 of the Securities Act of 1933, as amended, and seek, among other relief, unspecified compensatory damages, rescission, pre-and post-judgment interest and fees, costs and disbursements. On December 7, 2015, the OvaScience defendants filed a notice of removal with the Federal District Court for the District of Massachusetts. On December 30, 2015, plaintiffs filed a motion to remand the action to the Superior Court. Oral argument on the motion to remand was held on February 19, 2016. On February 23, 2016, the District Court granted plaintiffs' motion to remand the action to the Superior Court. On February 26, 2016, a second putative class action suit was filed in the Suffolk County Superior Court in the Commonwealth of Massachusetts against the Company, several of our officers and directors and certain of the underwriters from the January 2015 follow-on public offering of the Company's common stock. The complaint is substantially similar to the complaint filed in October 2015. The two actions subsequently were consolidated and plaintiffs filed a First Amended Class Action Complaint on June 17, 2016. Defendants filed motions to dismiss the complaint. Those motions were denied by order dated December 22, 2016. On August 17, 2016, an additional plaintiff, Westmoreland County Employee Retirement System ("Westmoreland") moved to intervene in the consolidated action. The defendants opposed Westmoreland's motion to intervene. The Superior Court granted Westmoreland's motion to intervene on October 27, 2017. On August 7, 2017, the plaintiffs filed their motion for class certification, which the defendants opposed. Oral argument on the motion for class certification was held on September 29, 2017. On November 7, 2017, the Superior Court denied the plaintiffs' motion for class certification. On August 14, 2017, the defendants filed their motion for summary judgment against plaintiffs Heather Carlson, Cesar Castellanos, Philipp Hofmann, and Carlos Rivas, which the plaintiffs opposed. Oral argument on the motion for summary judgment was held on October 18, 2017. On November 21, 2017, the Superior Court allowed the defendants' motion for summary judgment, and the claims asserted by plaintiffs Heather Carlson, Cesar Castellanos, Philipp Hofmann, and Carlos Rivas in the consolidated actions were dismissed, leaving Westmoreland as the sole remaining plaintiff. On November 22, 2017, Westmoreland filed a putative class action complaint in the U.S. District Court for the District of Massachusetts against the same defendants alleging the same claims as are alleged in the state court case (the "Westmoreland Federal Action"). On January 17, 2018, the lead plaintiff in a different case, a purported shareholder class action alleging violations of Sections 10(b) and 20(a) of the Securities Exchange Act of 1934 (the "Dahhan Action") filed a motion to intervene in the Westmoreland Federal Action and to consolidate the Westmoreland Federal Action with the Dahhan Action. We have opposed this motion, which is pending. In the Westmoreland Federal Action, on January 22, 2018, Westmoreland moved for appointment of lead plaintiff and approval of lead and liaison counsel. The lead plaintiff in the Dahhan Action opposed the motion. With the court's leave, on April 26, 2018, the defendants opposed Westmoreland's motion on statute of limitations grounds. This motion is pending. On January 22, 2018, Westmoreland filed a motion to voluntarily dismiss the Superior Court action without prejudice. The defendants opposed that motion. Oral argument on Westmoreland's motion for voluntary dismissal was held on April 3, 2018. On April 5, 2018, the Superior Court allowed Westmoreland's motion for voluntary dismissal with prejudice. The Superior Court entered final judgment on April 10, 2018, dismissing Westmoreland's claims without prejudice and dismissing the claims of plaintiffs Heather Carlson, Cesar Castellanos, Philipp Hofmann, and Carlos Rivas with prejudice. We believe that the complaints in both cases are without merit and intend to defend against the remaining pending litigation. There can be no assurance, however, that we will be successful. A resolution of these lawsuits adverse to the Company or the other defendants could have a material effect on our consolidated financial position and results of operations in the period in which the lawsuit is resolved. At present, we are unable to estimate potential losses, if any, related to the lawsuit.

On November 9, 2016, a purported shareholder derivative action was filed in the Business Litigation Session of the Suffolk County Superior Court in the Commonwealth of Massachusetts against certain of our present and former

officers and directors alleging breaches of fiduciary duty, unjust enrichment, abuse of control, gross mismanagement and corporate waste for purported actions related to the January 2015 follow-on public offering. On February 23, 2017, the court approved the parties' joint stipulation to stay all proceedings in the action until further notice. Following a status conference in December 2017, the stay was lifted. On January 25, 2018, at the parties' request, the court entered a second order staying all proceedings in the action under further order of the court. We believe that the complaint is without merit and intend to defend against the litigation. There can be no assurance, however, that we will be successful. A resolution of this lawsuit adverse to the Company or the other defendants could have a material effect on our consolidated financial position and results of operations in the period in which the lawsuit is resolved. At present, we are unable to estimate potential losses, if any, related to the lawsuit.

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On March 24, 2017, a purported shareholder class action lawsuit was filed in the U.S. District Court for the District of Massachusetts against the Company and certain of our present and former officers alleging violations of Sections 10(b) and 20(a) of the Securities Exchange Act of 1934. On July 5, 2017, the Court entered an order approving the appointment of Freedman Family Investments LLC as lead plaintiff, the firm of Robins Geller Rudman & Dowd LLP as lead counsel, and the Law Office of Alan L. Kovacs as local counsel. Plaintiff filed an amended complaint on August 25, 2017. We have filed a motion to dismiss the amended complaint, which is pending. On January 17, 2018, the lead plaintiff moved to consolidate the Westmoreland Federal Action with this case. We have opposed this motion, which is pending. We believe that the complaint is without merit and intend to defend against the litigation. There can be no assurance, however, that we will be successful. A resolution of this lawsuit adverse to the Company or the other defendants could have a material effect on our consolidated financial position and results of operations in the period in which the lawsuit is resolved. At present, we are unable to estimate potential losses, if any, related to the lawsuit.

On June 30, 2017, a purported shareholder derivative complaint was filed in the U.S. District Court for the District of Delaware against certain of our present and former directors and the Company as a nominal defendant, alleging breach of fiduciary duties, waste of corporate assets, unjust enrichment, and violations of Section 14(a) of the Securities Exchange Act of 1934, alleging that compensation awarded to the director defendants was excessive. We have filed a motion to dismiss the complaint, which is pending. At the parties' request, the court stayed all deadlines in this case and cancelled the hearing on defendants' motion to dismiss while the parties engage in settlement negotiations. We believe that the complaint is without merit and intend to defend against the litigation. There can be no assurance, however, that we will be successful. At present, we are unable to estimate potential losses, if any, related to the lawsuit.

On July 27, 2017, a purported shareholder derivative complaint was filed in the U.S. District Court for the District of Massachusetts against certain of our present and former directors and the Company as a nominal defendant, alleging breach of fiduciary duty, unjust enrichment and violations of Section 14(a) of the Securities Exchange Act of 1934 alleging that compensation awarded to the director defendants was excessive and seeking redress for purported actions related to the Company's January 2015 follow-on public offering and public statements. On September 26, 2017, the plaintiffs filed an amended complaint which eliminated all claims regarding allegedly excessive director pay. On October 27, 2017, the defendants filed a motion to dismiss the amended complaint. The court heard oral argument on the motion to dismiss on April 5, 2018. On April 13, 2018, the court granted the defendants' motion to dismiss the complaint for failure to state a claim for relief under Section 14(a). The court also dismissed the plaintiffs' pendent state law claims without prejudice, based on lack of subject matter jurisdiction. On April 25, 2018, the plaintiffs moved for leave to amend the complaint, and to stay this case pending the outcome of the Westmoreland Federal Action and the Dahhan Action. The defendants do not believe that the proposed amended complaint cures the defects in the current complaint, but have informed plaintiffs' counsel that, in the interest of judicial economy, the defendants would not oppose the proposed amendment if the court would consider staying the case pending the resolution of the pending Westmoreland Federal Action and the Dahhan Action. On April 27, 2018, the court granted the plaintiffs' motion for leave to amend the complaint and for a stay. On April 30, 2018, the plaintiffs filed their second amended complaint. Per the court's order of April 27, 2018, the case will be stayed upon the filing of the second amended complaint. We believe that the complaint is without merit and intend to defend against the litigation. There can be no assurance, however, that we will be successful. At present, we are unable to estimate potential losses, if any, related to the lawsuit.

We are not party to any other material litigation in any court.

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11. Subsequent Events

On May 3, 2018, we provided a strategic update on our business. We announced that we will scale back investments in our research and development efforts, including putting a hold on our planned Phase 1b/2a clinical trial of OvaPrime, in order to preserve resources while we evaluate the results of our ongoing preclinical studies and continue to monitor patients in our Phase 1 clinical trial of OvaPrime. Under the leadership of Dr. James Lillie, our Chief Scientific Officer, a small internal scientific team will continue to leverage specialized contract research organizations and select academic partners to progress our OvaTure program. We will also continue to offer AUGMENT to patients in Japan through an exclusive license to IVF Japan.

Additionally, we announced that we have initiated a process to explore a range of strategic alternatives for enhancing shareholder value, including the potential sale or merger of the Company. Our Board of Directors has established a Business Development Committee that will work with management to oversee this process and has engaged Ladenburg Thalmann & Co. Inc. to act as its strategic financial advisor.

In conjunction with these decisions, we will also restructure our organization to streamline operations and reduce our cost structure, including reducing our workforce by approximately 70 percent. We anticipate the majority of the reduction in personnel will be completed by June 30, 2018. We expect to realize annualized cost savings beginning in the fourth quarter of 2018. We anticipate incurring one-time costs related to our restructuring initiatives of approximately $0.5 million to $1.0 million, which primarily consist of severance-related termination benefits.

On May 3, 2018, the Company's Board of Directors approved retention arrangements for the Company's Chief Executive Officer, Senior Vice President - Finance, Chief Scientific Officer and other employees, substantially as described below.

CEO Retention Arrangements: Pursuant to Dr. Kroeger's Employment Agreement with the Company, dated June 21, 2017, Dr. Kroeger is entitled to a payment of 12 months' base salary in the event of a termination of his employment without cause or for good reason (as defined in the Employment Agreement) within one year following a Change in Control Event (as defined in the Employment Agreement). Pursuant to the retention arrangements, under those circumstances Dr. Kroeger will also be entitled to his full bonus opportunity for the year (60% of his then-current base salary).

In addition, Dr. Kroeger will be entitled to receive a cash bonus equal to 1% of the OvaScience Deal Value (defined below) implied in a Change in Control Event, which will fully vest six months after the closing of such transaction, would be immediately payable in the event of a termination of his employment without cause or for good reason within one year following a Change in Control Event, and shall be forfeited if no strategic transaction is entered into within eighteen months of May 3, 2018.

On May 10, 2018, Dr. Kroeger will also receive a new grant of options to purchase 715,000 shares of the Company's common stock at an exercise price equal to the closing price of the Company's common stock on the grant date, which shall vest in full upon the closing of a Change in Control Event, and shall be forfeited by Dr. Kroeger if no strategic transaction is entered into within eighteen months. Dr. Kroeger will have the right to exercise this option for a three-year period after any termination of his employment (other than a termination for cause) following a Change in Control Event. The "OvaScience Deal Value" shall be the product of the number of shares of the Company outstanding immediately prior to the closing of a Change in Control Event multiplied by the closing price of the Company's common stock on the date of the closing of the Change in Control Event.

As previously reported, when he joined the Company, Dr. Kroeger received a grant of 1,783,108 options to purchase common stock of the Company at an exercise price of $1.46 per share (the "Kroeger New Hire Options"), which are currently under water relative to the closing price of the common stock on May 2, 2018 of $0.91. Under their original terms, each of the Kroeger New Hire Options can be exercised for 90 days after termination of employment. The retention arrangements approved for Dr. Kroeger provide that 1,069,864 of the Kroeger New Hire Options may be exercised for three years after his termination (other than for cause). The remaining 713,242 Kroeger New Hire Options shall retain a 90 day post-termination exercise period.

Retention Arrangements for Other Officers and for Employees: Pursuant to the employment agreements between the Company and Jonathan Gillis, Senior Vice President - Finance and Dr. James Lillie, Chief Scientific Officer, respectively, Mr. Gillis and Dr. Lillie are each entitled to a payment of six months' base salary in the event of a termination of employment without cause or for good reason. Pursuant to the retention arrangements, Mr. Gillis and Dr. Lillie will each also be entitled to a payment of his full bonus opportunity for the year (35% and 40% of his then-current base salary, respectively) in the event of a termination of his employment without cause or for good reason following a Change in Control Event. Two other non-

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executive employees of the Company will also receive the same provision with respect to their bonus payment in the event of a termination of employment without cause or for good reason following a Change in Control Event.
In addition, Mr. Gillis, Dr. Lillie and two non-executive employees will be entitled to receive cash bonuses in an amount equal to an aggregate of 1.25% of the OvaScience Deal Value implied by a Change in Control Event, which will fully vest six months after the closing of such transaction for Mr. Gillis and Dr. Lillie, will fully vest immediately upon the closing of such transaction for the non-executive employees, and shall be forfeited if no strategic transaction is entered into within eighteen months of the date hereof. The cash bonuses would be paid in full in the event of a termination of Mr. Gillis' or Dr. Lillie's employment without cause or for good reason following a Change in Control Event.
On May 10, 2018, Mr. Gillis and Dr. Lillie will also receive new grants of 75,000 and 125,000 options, respectively, to purchase shares of the Company's common stock, with an exercise price equal to the closing price of the Company's common stock on the grant date, which shall vest in full upon the closing of a strategic transaction, and shall be forfeited if no strategic transaction is entered into within eighteen months. Mr. Gillis and Dr. Lillie will have the right to exercise these options for a one-year period after any termination of their respective employment (other than for cause). Three other non-executive employees and a consultant will receive option grants (in an aggregate amount of 260,000 options) in connection with the retention arrangements, which shall vest in full upon the closing of a strategic transaction and shall be forfeited if no strategic transaction is entered into within eighteen months. In addition, pursuant to the retention arrangements, all outstanding option grants held by Mr. Gillis (206,145 options), Dr. Lillie (357,057 options) and four other non-executive employees and one consultant (in an aggregate amount of 789,632 options) will be exercisable for a one-year period (increased from a 90 day period in the original grants) after any termination of such employee's employment (other than for cause) following a Change in Control Event.
The Company will enter into definitive agreements reflecting these terms with each affected employee and executive.

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

This Quarterly Report on Form 10-Q contains forward-looking statements that involve risks and uncertainties. The statements contained in this Quarterly Report on Form 10-Q that are not purely historical are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. Without limiting the foregoing, the words "may," "shall," "will," "should," "could," "expects," "plans," "intends," "anticipates," "believes," "estimates," "predicts," "potential," "continue," "target," "goal", "seek", "likely," "hope" a expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these words. All forward-looking statements included in this Quarterly Report on Form 10-Q are based on information available to us up to, and including, the date of this document, and we expressly disclaim any obligation to update any such forward-looking statements to reflect events or circumstances that arise after the date hereof. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of certain important factors, including those set forth in this Item 2 — "Management's Discussion and Analysis of Financial Condition and Results of Operations," as well as under the heading "Risk Factors" contained in Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2017 and in Part II, Item 1A "Risk Factors" of this Quarterly Report.
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Overview

OvaScience, Inc. is a company focused on the discovery and development of new treatment options for women and couples struggling with infertility. OvaScience is leveraging the breakthrough discovery of egg precursor, or EggPC℠, cells to transform the treatment landscape for women's fertility.
OvaPrime is a potential fertility treatment that could help restore a woman's egg production. With OvaPrime, a woman's own EggPC cells are isolated from a niche within her ovary where they are quiescent and repositioned such that they receive the appropriate signals to mature in vivo into new, fertilizable eggs. The addressable market for OvaPrime is women undergoing IVF diagnosed with Diminished Ovarian Reserve, including Premature Ovarian Insufficiency and Poor Ovarian Response. Based on a 2015 report from the CDC, this represents approximately thirty one percent of all IVF cycles, or 0.6 million women per year globally.

OvaTure is a potential fertility treatment that eliminates the need for hormone stimulation typically required as part of standard in vitro fertilization (IVF). With OvaTure, a woman's own EggPC cells are isolated from her ovary and matured in vitro into new, fertilizable eggs. This potential treatment may be an option for all women undergoing IVF, which represents approximately 1.9 million women per year globally.

AUGMENT is a fertility treatment designed to improve embryo development and pregnancy rates. With AUGMENT, mitochondria from a woman's own EggPC cells are isolated and injected into the egg during IVF.

AUGMENT was introduced in select clinics outside of the United States. AUGMENT is currently available to patients in Japan through a collaborative access agreement with the IVF Japan Group. AUGMENT is not available in the United States.

OvaScience is completing preclinical animal studies designed to evaluate its egg precursor (EggPC^{SM}) cell technology platform and inform the future development of OvaPrime. Based on preliminary data from these experiments, OvaScience has decided to scale back investments in its OvaPrime research and development efforts, including halting its planned Phase 1b/2a clinical trial. The Company has done so in order to preserve resources while it completes these experiments and awaits the final results, and while it continues to monitor patients in its ongoing Phase 1 clinical trial. Under the leadership of Dr. James Lillie, Chief Scientific Officer, a small internal scientific team will continue in-house efforts to progress the Company's OvaTure program in conjunction with specialized contract research organizations and select academic partners. The Company will also continue to offer AUGMENT to patients in Japan through an exclusive license to IVF Japan Group.

Additionally, OvaScience's management team and Board of Directors have initiated a process to explore a range of strategic alternatives for enhancing shareholder value, including the potential sale or merger of the Company. There can be no assurance that this process will result in any such transaction.

In conjunction with these decisions, OvaScience will restructure its organization to streamline operations and reduce its cost structure, including reducing its workforce by approximately 70 percent. The majority of the reduction in personnel is expected to be completed by June 30, 2018.

Critical Accounting Policies and Significant Judgments and Estimates

The discussion and analysis of our financial condition and results of operations is based on our condensed consolidated financial statements, which have been prepared in accordance with U.S. generally accepted accounting principles. The preparation of our condensed consolidated financial statements requires us to make judgments, estimates and assumptions that affect the amounts reported in the condensed consolidated financial statements and accompanying notes. We evaluate our estimates, on an ongoing basis, including those related to accrued expenses and assumptions in the valuation of stock-based compensation. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable in the circumstances. Actual results could differ from those estimates.

Refer to Part II, Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations" of our Annual Report on Form 10-K for the year ended December 31, 2017 for a discussion of our critical accounting policies and estimates.

There were no other significant changes to our critical accounting policies and estimates in the three months ended March 31, 2018.

Results of Operations

The following table summarizes our results of operations for the three months ended March 31, 2018 and 2017, together with the changes from period to period (in thousands of dollars except for percentages):

	Three Months Ended, March 31,		2018/ 2017 Comparison Increase / (Decrease)	
	2018	2017	$	%
Revenues	$67	$63	$4	6 %
Costs of revenues	112	269	(157)	(58)%
Research and development expenses	2,621	5,764	(3,143)	(55)%
Selling, general and administrative expenses	4,224	7,129	(2,905)	(41)%
Restructuring	692	1,488	(796)	(53)%
Interest income, net	191	182	9	5 %

Other income (expense), net	21	(60)	81	(135)%
Loss from equity method investment	—	421	(421)	(100)%
Income tax expense	—	9	(9)	(100)%
Net loss	$(7,370)	$(14,895)	$7,525	(51)%

Revenues

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Revenues for the three months ended March 31, 2018 and 2017, were $67,000 and $63,000, respectively. Since AUGMENT is only available to patients in Japan through our collaborative access agreement with the IVF Japan Group, we do not anticipate significant revenue from this or any other program in the near term.

Cost of Revenues

Costs of revenues for the three months ended March 31, 2018 and 2017 were $0.1 million and $0.3 million, respectively. The decrease in cost of revenues for the three months ended March 31, 2018 is attributable to the decrease in the number of biopsies performed primarily as a result of our shift in corporate priorities related to AUGMENT resulting from our restructuring activities and the related pricing programs offered, as well as a $0.1 million decrease in compensation costs resulting from our restructuring activities. Our costs of revenues include the cost of processing patient tissue that corresponds to treatment revenues for the reporting period. Given our shift in corporate priorities and focus on research and development, we expect cost of revenues to decrease in the future.

Research and Development Expense

The $3.1 million, or 55%, decrease in our research and development expense for the three months ended March 31, 2018 as compared to the three months ended March 31, 2017, from $5.8 million to $2.6 million was primarily attributable to:

- a $1.7 million decrease in employee compensation, including stock-based compensation, as a result of our corporate restructuring activities;
- a $1.0 million decrease in travel, facilities and other costs primarily attributable to the decrease in our headcount as result of our corporate restructuring initiatives; and
- a $0.4 million decrease in marketing, professional and commercial related costs primarily attributable to our shift in corporate strategy to focus on research and development activities.

Our research and development expense would increase if our programs were to successfully advance towards commercialization. We do not believe that our historical costs are indicative of the future costs associated with these programs nor do they represent what any other future treatment program we initiate may cost. Due to the variability in the length of time and scope of activities necessary to develop a fertility treatment and uncertainties related to cost estimates and our ability to commercialize and/or obtain marketing approval for our fertility treatments, accurate and meaningful estimates of the total costs required to bring our fertility treatments to market are not available. Additionally, because of the risks inherent in drug discovery and development, we cannot reasonably estimate or know:

- the nature, timing and estimated costs of the efforts necessary to complete the development of our treatments;
- the anticipated completion dates of our treatment development efforts, if any; or
- the period in which material net cash in-flows are expected to commence, if at all, from our current treatments and any potential future treatments.

Selling, General and Administrative Expense

The $2.9 million, or 41% decrease in selling, general and administrative expense for the three months ended March 31, 2018 as compared to the three months ended March 31, 2017, from $7.1 million to $4.2 million was primarily attributable to:

- a $2.6 million decrease in employee compensation, including stock-based compensation, a result of both our corporate restructuring activities;
- a $0.3 million decrease in travel, facilities and other costs primarily attributable to the decrease in our headcount as result of our corporate restructuring initiatives;
- a $0.2 million decrease in marketing and commercial related activities primarily attributable to our shift in corporate strategy to focus on research and development activities; and
- a $0.2 million increase in professional costs.

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We expect selling, general and administrative expense to decrease as a result of the corporate restructuring announcements in December 2016, June 2017 and January 2018. We do not believe that our historical costs of supporting AUGMENT represent what any other future commercial treatment program we initiate may cost to support and do not anticipate substantial costs associated with supporting AUGMENT.

Restructuring Expense

Restructuring expenses were $0.7 million for the three months ended March 31, 2018 relating to one-time termination benefits. For the three months ended March 31, 2017 we recognized restructuring charges of $1.5 million, including $1.0 million of one-time termination benefits, and $0.5 million of other restructuring related costs, primarily consisting of legal fees.

Interest Income, Net

Interest income, net was $0.2 million for the three months ended March 31, 2018 and 2017, which for both periods was comprised of $0.2 million of interest income related to short-term investments.

Loss from Equity Method Investment

Loss from equity method investment from our OvaXon joint venture was de minimis for the three months ended March 31, 2018. Loss from equity method investment from this joint venture was $0.4 million for the three months ended March 31, 2017.

Income Tax Expense

Income tax expense was immaterial for the three months ended March 31, 2018. Income tax expense was immaterial for the three months ended March 31, 2017. Income tax expense primarily consists of taxes incurred in the state and foreign jurisdictions in which we operate.

Liquidity and Capital Resources

Sources of Liquidity

We have generated limited AUGMENT treatment revenue to date and do not anticipate any significant revenues in the near-term. We have relied on the proceeds from sales of equity securities to fund our operations. Our short-term investments primarily trade in liquid markets, and the average days to maturity of our portfolio as of March 31, 2018 are less than 12 months. Because our fertility treatments are in various stages of development and the outcome of these efforts is uncertain, we cannot estimate the actual amounts necessary to successfully complete the development and commercialization of our fertility treatments, or whether or when we may achieve profitability.

Our significant capital resources are as follows (in thousands):

	March 31, 2018	December 31, 2017
Cash, cash equivalents and short-term investments	$58,298	$ 67,203
Working capital	54,101	60,977

	Three Months Ended March 31,	
	2018	2017
Cash (used in) provided by:		
Operating activities	$(8,934)	$(15,185)
Investing activities	12,954	(3,312)
Capital expenditures (included in investing activities above)	—	(75)
Financing activities	—	—

Cash Flows

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Cash used in operating activities in both of the periods presented was primarily driven by our net loss. Cash flows used in operations can vary significantly due to various factors, including changes in the net loss and the timing of disbursements made for accounts payable and accruals.

Cash provided by investing activities for the three months ended March 31, 2018 included purchases of $16.2 million of short-term investments, which were offset by $29.2 million of proceeds from maturities of short-term investments.

Cash provided by investing activities for the three months ended March 31, 2017 included purchases of $26.6 million of short-term investments and capital expenditures of $0.1 million, which were offset by $23.3 million of proceeds from maturities of short-term investments. Capital expenditures in the three months ended March 31, 2017 primarily consisted of laboratory equipment.

Net cash provided by financing activities for both the three months ended March 31, 2018 and March 31, 2017 was zero.

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We will need substantial additional funds to support our planned operations. We expect that our existing cash, cash equivalents and short-term investments of $58.3 million at March 31, 2018 will enable us to fund our current operating plan for at least the next 12 months. We have based this estimate on assumptions that may prove to be wrong, and we could use our available capital resources sooner than we currently expect. Because of the numerous risks and uncertainties associated with the development and commercialization of our fertility treatments, and the extent to which we may enter into collaborations with third parties for development and commercialization of our fertility treatments, we are unable to estimate the amounts of increased capital outlays and operating expenses associated with completing the development of our current treatments in development. Our future capital requirements will depend on many factors, including:

- the costs associated with clinical development of OvaPrime and its subsequent adoption by IVF clinics;
- the costs associated with preclinical development and subsequent clinical trials of OvaTure and other potential fertility treatments;
- the costs associated with a domestic and international sales, marketing, manufacturing and distribution infrastructure to commercialize any fertility treatments that we successfully develop, as well as costs associated with our restructuring initiatives and related cash payments;
- the costs associated with clinical studies and trials;
- the costs of continuing the development and optimization of the OvaTure treatment and our success in defining a clinical pathway;
- the costs involved in collaborating with our academic and commercial partners, and any contract research organizations;
- following any applicable regulatory process in the United States and abroad, including the premarketing and marketing approval requirements, to which any of our potential fertility treatments may be subject;
- following any regulatory or institutional review board review of our potential fertility treatments that are subject to such review;
- preparing, filing and prosecuting patent applications, maintaining and enforcing our intellectual property rights and defending intellectual property-related claims;
- establishing collaborations and partnerships on favorable terms, if at all; and
- developing, acquiring or in-licensing other potential fertility treatments and technologies.

Until such time, if ever, as we can generate sufficient revenues from our fertility treatments to become profitable, we expect to finance our cash needs through a combination of equity offerings, debt financings, collaborations, strategic alliances and licensing arrangements. We do not have any committed external source of funds. In addition, we may elect to raise additional funds even before we need them if the conditions for raising capital are favorable. To the extent that we raise additional capital through the sale of equity or convertible debt securities, the ownership interest of our stockholders will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect the rights of common stockholders. Debt financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends. If we raise additional funds through collaborations, strategic alliances or licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies, future revenue streams, research programs or treatments or grant licenses on terms that may not be favorable to us. If we are unable to raise additional funds through equity or debt financings when needed, we may be required to delay, limit, reduce or terminate our fertility treatment development or future commercialization efforts or grant rights to develop and market treatments that we would otherwise prefer to develop and market ourselves.

Off-Balance Sheet Arrangements

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

Contractual Obligations

There have been no material changes to our contractual obligations set forth under the heading “Management’s Discussion and Analysis of Financial Condition and Results of Operations — Contractual Obligations” in our Annual Report on Form 10-K for the year ended December 31, 2017.

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Recent Accounting Pronouncements

In May 2017, the Financial Accounting Standards Board ("FASB") issued ASU No. 2017-09, Compensation - Stock Compensation (Topic 718) - Scope of Modification Accounting. ASU 2017-09 clarifies the term modification and provides guidance on when to apply modification accounting, specifically when changes to the terms or conditions of a share-based payment occur. Entities should account for the effects of a modification unless all of the following conditions are met: (1) there is no change in the fair value of the award, (2) there is no change in the vesting conditions, and (3) there is no change in classification of the award as liability or equity. We adopted ASU 2017-09 for the period ending June 30, 2017, and the adoption of ASU 2017-09 did not have a material impact on our financial statements and the footnote disclosures thereto.

In November 2016, the FASB issued ASU No. 2016-18, Statement of Cash Flows (Topic 230) - Restricted Cash. ASU 2016-18 requires that a statement of cash flows explain the change during the period in the total of cash, cash equivalents, and amounts generally described as restricted cash or restricted cash equivalents. This update is effective for fiscal years beginning after December 15, 2017, and interim periods within those fiscal years using a retrospective transition method to each period presented. The Company adopted this standard as of January 1, 2018 on a retrospective basis, which resulted in the recast of the prior reporting period in the statement of cash flows. For the three months ended March 31, 2018 and 2017, $0.8 million and $0.8 million, respectively, of restricted cash is included in the total of cash and restricted cash balance at the end of period. A reconciliation of cash and restricted cash from our condensed consolidated statement of cash flows to the amounts reported within our condensed consolidated balance sheet is also included in a table below our condensed consolidated statement of cash flows.

In August 2016, the FASB issued ASU No. 2016-15, Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments. ASU 2016-15 requires changes in the presentation of debt prepayment or debt extinguishment costs, contingent consideration payments made after a business combination, proceeds from the settlement of insurance claims, proceeds from the settlement of corporate-owned life insurance policies and distributions received from equity method investees. This update is effective for annual and interim periods beginning after December 15, 2017 using a retrospective transition method to each period presented. We adopted this standard as of January 1, 2018 with no material impact on our consolidated financial statements.

In February 2016, the FASB issued ASU No. 2016-02, Leases, which is intended to increase transparency and comparability among organizations by recognizing lease assets and lease liabilities on the balance sheet and disclosing key information about leasing arrangements. Under ASU 2016-02, a lessee will be required to recognize assets and liabilities for both operating and financing leases with lease terms of more than 12 months. In addition, ASU 2016-02 requires the use of the modified retrospective method, which will require adjustment to all comparative periods presented in the consolidated financial statements. The amendment is effective for annual periods beginning after December 15, 2018, and interim periods within those annual periods. Early adoption is permitted. We are currently assessing the impact ASU 2016-02 will have on our consolidated financial statements and footnote disclosures thereto.

In August 2015, the FASB issued ASU No. 2015-14 Revenue from Contracts with Customers, which defers the effective date of ASU No. 2014-09 by one year. ASU 2014-09 amends the guidance for accounting for revenue from contracts with customers. ASU 2014-09 supersedes the revenue recognition requirements in ASC Topic 605, Revenue Recognition, and creates a new Topic 606, Revenue from Contracts with Customers. This guidance is now effective for fiscal years beginning after December 15, 2017, with early adoption permitted for annual periods beginning after December 15, 2016. Two adoption methods are permitted: retrospectively to all prior reporting periods presented, with certain practical expedients permitted; or retrospectively with the cumulative effect of initially adopting the ASU 2014-09 recognized at the date of initial application. We adopted ASU 2015-14 as of January 1, 2018, using the modified retrospective approach and applied the standard only to contracts that had not yet been completed as of the adoption date. The impact under this methodology to our previously reported revenues is insignificant in the periods reported, with no effect to reported revenues in the fiscal year ended December 31, 2017.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

Our interest income is sensitive to changes in the general level of U.S. interest rates, particularly since a significant portion of our investments are in money market funds and corporate obligations. We do not enter into investments for trading or speculative purposes. We maintain our cash, cash equivalents and short-term investments with a high quality, accredited financial institution. Our marketable securities are subject to interest rate risk and will fall in value if market interest rates increase.

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A hypothetical 100 basis point increase in interest rates would result in an approximately $0.2 million and $0.1 million decrease in the fair value of our investments as of March 31, 2018 and December 31, 2017, respectively. We have the ability to hold our fixed income investments until maturity and, therefore, we do not expect our operating results or cash flows to be affected to any significant degree by the effect of a change in market interest rates on our investments.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures. Our management, with the participation of our principal executive officer and principal financial officer, evaluated the effectiveness of our disclosure controls and procedures as of March 31, 2018. The term "disclosure controls and procedures," as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company's management, including its principal executive and principal financial officers, as appropriate, to allow timely decisions regarding required disclosure. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on the evaluation of our disclosure controls and procedures as of March 31, 2018, our principal executive officer and principal financial officer concluded that, as of such date, our disclosure controls and procedures were effective at the reasonable assurance level.

Changes in Internal Controls. No change in our internal control over financial reporting occurred during the fiscal quarter ended March 31, 2018 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Part II. Other Information

Item 1. Legal Proceedings

On October 9, 2015, a purported class action lawsuit was filed in the Suffolk County Superior Court in the Commonwealth of Massachusetts against the Company, several of the Company's officers and directors and certain of the underwriters from the Company's January 2015 follow-on public offering of the Company's common stock. The plaintiffs purported to represent those persons who purchased shares of the Company's common stock pursuant or traceable to the Company's January 2015 follow-on public offering. The plaintiffs alleged, among other things, that the Company made false and misleading statements and failed to disclose material information in the Company's January 2015 Registration Statement and incorporated offering materials. Plaintiffs alleged violations of Sections 11, 12 and 15 of the Securities Act of 1933, as amended, and seek, among other relief, unspecified compensatory damages, rescission, pre-and post-judgment interest and fees, costs and disbursements. On December 7, 2015, the OvaScience, Inc. defendants filed a notice of removal with the Federal District Court for the District of Massachusetts. On December 30, 2015, plaintiffs filed a motion to remand the action to the Superior Court. Oral argument on the motion to remand was held on February 19, 2016. On February 23, 2016, the District Court granted plaintiffs' motion to remand the action to the Superior Court. On February 26, 2016, a second putative class action suit was filed in the Suffolk County Superior Court in the Commonwealth of Massachusetts against the Company, several of the Company's officers and directors and certain of the underwriters from the Company's January 2015 follow-on public offering of the Company's common stock. The complaint is substantially similar to the complaint filed in October 2015. The two actions subsequently were consolidated and plaintiffs filed a First Amended Class Action Complaint on June 17, 2016. Defendants filed motions to dismiss the complaint. Those motions were denied by order dated December 22, 2016. On August 17, 2016, an additional plaintiff, Westmoreland County Employee Retirement System ("Westmoreland") moved to intervene in the consolidated action. The defendants opposed Westmoreland's motion to intervene. The Superior Court granted Westmoreland's motion to intervene on October 27, 2017. On August 7, 2017, the plaintiffs filed their motion for class certification, which the defendants opposed. Oral

argument on the motion for class certification was held on September 29, 2017. On November 7, 2017, the Superior Court denied the plaintiffs' motion for class certification. On August 14, 2017, the Defendants filed their motion for summary judgment against plaintiffs Heather Carlson, Cesar Castellanos, Philipp Hofmann, and Carlos Rivas, which the plaintiffs opposed. Oral argument on the motion for summary judgment was held on October 18, 2017. On November 21, 2017, the Superior Court allowed the defendants' motion for summary judgment, and the claims asserted by plaintiffs Heather Carlson, Cesar Castellanos, Philipp Hofmann, and Carlos Rivas in the consolidated actions were dismissed, leaving Westmoreland as the sole remaining plaintiff. On November 22, 2017, Westmoreland filed a putative class action complaint in the U.S. District Court for the District of Massachusetts against the same defendants alleging the same claims as are alleged in the state court case (the "Westmoreland Federal Action"). On January 17, 2018, the lead plaintiff in a different case, a purported shareholder class action alleging violations of Sections 10(b) and 20(a) of the Securities Exchange Act of 1934 (the "Dahhan Action") filed a motion to intervene in the Westmoreland Federal Action and to consolidate the Westmoreland Federal Action with the Dahhan Action. We have opposed this motion, which is pending. In the Westmoreland Federal Action, on January 22, 2018, Westmoreland moved for appointment of lead plaintiff and approval of lead and liaison counsel. The lead plaintiff in the Dahhan Action opposed the motion. With the court's leave, on April 26, 2018, the defendants opposed Westmoreland's motion on statute of limitations grounds. This motion is pending. On January 22, 2018, Westmoreland filed a motion to voluntarily dismiss the Superior Court action without prejudice. The defendants opposed that motion. Oral

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argument on Westmoreland's motion for voluntary dismissal was held on April 3, 2018. On April 5, 2018, the Superior Court allowed Westmoreland's motion for voluntary dismissal with prejudice. The Superior Court entered final judgment on April 10, 2018, dismissing Westmoreland's claims without prejudice and dismissing the claims of plaintiffs Heather Carlson, Cesar Castellanos, Philipp Hofmann, and Carlos Rivas with prejudice. The Company believes that the complaint in the remaining Westmoreland Federal Action is without merit and intends to defend against the litigation. There can be no assurance, however, that the Company will be successful. A resolution of this lawsuit adverse to the Company or the other defendants could have a material effect on the Company's consolidated financial position and results of operations in the period in which the lawsuit is resolved. At present, we are unable to estimate potential losses, if any, related to the lawsuit.

On November 9, 2016, a purported shareholder derivative action was filed in the Business Litigation Session of the Suffolk County Superior Court in the Commonwealth of Massachusetts against certain present and former officers and directors of the Company alleging breaches of fiduciary duty, unjust enrichment, abuse of control, gross mismanagement and corporate waste for purported actions related to the Company's January 2015 follow-on public offering. On February 23, 2017, the court approved the parties' joint stipulation to stay all proceedings in the action until further notice. Following a status conference in December 2017, the stay was lifted. On January 25, 2018, at the parties' request, the court entered a second order staying all proceedings in the action under further order of the court. The Company believes that the complaint is without merit and intends to defend against the litigation. There can be no assurance, however, that the Company will be successful. At present, we are unable to estimate potential losses, if any, related to the lawsuit.

On March 24, 2017, a purported shareholder class action lawsuit was filed in the U.S. District Court for the District of Massachusetts against the Company and certain of our present and former officers alleging violations of Sections 10(b) and 20(a) of the Securities Exchange Act of 1934. On July 5, 2017, the Court entered an order approving the appointment of Freedman Family Investments, LLC as lead plaintiff, the firm of Robins Geller Rudman & Dowd LLP as lead counsel and the Law Office of Alan L. Kovacs as local counsel. Plaintiff filed an amended complaint on August 25, 2017. We have filed a motion to dismiss the amended complaint, which is pending. On January 17, 2018, the lead plaintiff moved to consolidate the Westmoreland Federal Action with this case. The Company has opposed this motion, which is pending. We believe that the complaint is without merit and intend to defend against the litigation. There can be no assurance, however, that we will be successful. A resolution of this lawsuit adverse to the Company or the other defendants could have a material effect on our consolidated financial position and results of operations in the period in which the lawsuit is resolved. At present, we are unable to estimate potential losses, if any, related to the lawsuit.

On June 30, 2017, a purported shareholder derivative complaint was filed in the U.S. District Court for the District of Delaware against certain of our present and former directors and the Company as a nominal defendant alleging breach of fiduciary duties, waste of corporate assets, unjust enrichment and violations of Section 14(a) of the Securities Exchange Act of 1934 alleging that compensation awarded to the director defendants was excessive. We have filed a motion to dismiss the complaint, which is pending. At the parties' request, the court stayed all deadlines in this case and cancelled the hearing on defendants' motion to dismiss while the parties engage in settlement negotiations. We believe that the complaint is without merit and intend to defend against the litigation. There can be no assurance, however, that we will be successful. At present, we are unable to estimate potential losses, if any, related to the lawsuit.

On July 27, 2017, a purported shareholder derivative complaint was filed in the U.S. District Court for the District of Massachusetts against certain of our present and former directors and the Company as a nominal defendant alleging breach of fiduciary duty, unjust enrichment and violations of Section 14(a) of the Securities Exchange Act of 1934 alleging that compensation awarded to the director defendants was excessive and seeking redress for purported actions related to the Company's January 2015 follow-on public offering and public statements. On September 26, 2017, the plaintiff filed an amended complaint which eliminated all claims regarding allegedly excessive director pay. On October 27, 2017, the defendants filed a motion to dismiss the amended complaint. The court heard oral argument on the motion to dismiss on April 5, 2018. On April 13, 2018, the court granted the defendants' motion to dismiss the complaint for failure to state a claim for relief under Section 14(a). The court also dismissed the plaintiffs' pendent

state law claims without prejudice, based on lack of subject matter jurisdiction. On April 25, 2018, the plaintiffs moved for leave to amend the complaint, and to stay this case pending the outcome of the Westmoreland Federal Action and the Dahhan Action. The defendants do not believe that the proposed amended complaint cures the defects in the current complaint, but have informed plaintiffs' counsel that, in the interest of judicial economy, the defendants would not oppose the proposed amendment if the court would consider staying the case pending the resolution of the pending Westmoreland Federal Action and the Dahhan Action. On April 27, 2018, the court granted the plaintiffs' motion for leave to amend the complaint and for a stay. On April 30, 2018, the plaintiffs filed their second amended complaint. Per the court's order on April 27, 2018, the case will be stayed upon the filing of the second amended complaint. We believe that the complaint is without merit and intend to defend against the litigation. There can be no assurance, however, that we will be successful. At present, we are unable to estimate potential losses, if any, related to the lawsuit.

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We are not party to any other material litigation in any court.

Item 1A. Risk Factors

In addition to the other information set forth in this report, you should carefully consider the risk factors discussed in Part I, Item 1A "Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2017. With the exception of the risk factors below, there here have been no material changes in or additions to the risk factors included in our Annual Report on Form 10-K for the year ended December 31, 2017.

We currently do not meet the continued listing standards of The Nasdaq Capital Market, which require a minimum closing bid price of $1.00 per share. Our failure to meet Nasdaq's continued listing standards could result in the delisting of our common stock, negatively impact the price of our common stock and negatively impact our ability to raise additional capital.

Our common stock is listed on The Nasdaq Capital Market. Nasdaq provides various continued listing requirements that a company must meet in order for its stock to continue trading on The Nasdaq Capital Market. Among these requirements is the requirement that the Company's stock trades at a minimum closing bid price of $1.00 per share. Our stock has recently and consistently traded below $1.00 per share, including closing bid prices below $1.00 per share. On April 27, 2018, we received a deficiency letter from The Nasdaq Stock Market which provided us a grace period of 180 calendar days, or until October 24, 2018, to regain compliance with the minimum bid price requirement. We may achieve compliance during this 180-day period if the closing bid price of our common stock is at least $1.00 per share for a minimum of 10 consecutive business days before October 24, 2018. If we fail to regain compliance on or prior to October 24, 2018, we may be eligible for an additional 180 day compliance period. Additionally, if we fail to comply with any other continued listing standards of Nasdaq, our common stock will also be subject to delisting. If that were to occur, our common stock would be subject to rules that impose additional sales practice requirements on broker-dealers who sell our securities. The additional burdens imposed upon broker-dealers by these requirements could discourage broker-dealers from effecting transactions in our common stock. This would significantly and negatively affect the ability of investors to trade our securities and would significantly and negatively affect the value and liquidity of our common stock. These factors could contribute to lower prices and larger spreads in the bid and ask prices for our common stock. If we seek to implement a reverse stock split in order to remain listed on The Nasdaq Capital Market, the announcement and/or implementation of a reverse stock split could significantly negatively affect the price of our common stock.

We may experience difficulties, delays or unexpected costs as a result of, and may not achieve the anticipated benefits and savings from, our recently announced corporate restructuring plan, and our restructuring activities may adversely affect our business. Further, the exploration of our strategic alternatives may not result in the consummation of any transaction.

On May 3, 2018, we announced the reduction of our workforce by approximately 70%. This reduction in force will result in the loss of long-term employees, the loss of institutional knowledge and expertise and the reallocation of certain job responsibilities, all of which could adversely affect operational efficiencies and employee performance. Although our Board has approved retention arrangements for our key remaining employees, to the extent that we are unable to effectively reallocate employee responsibilities, retain key employees, establish and maintain agreements with competent third-party contractors on terms that are acceptable to us, or effectively manage the work performed by any retained third-party contractors, our ability effectively to operate our business may be impaired and our strategic goals and our financial results may be adversely affected.

Restructuring plans may yield unintended consequences, such as attrition beyond our intended reduction in workforce and reduced employee morale. Additionally, as a result of our restructuring activities we may experience a loss of continuity, loss of accumulated knowledge and/or inefficiency during transitional periods. If we cannot successfully manage the transition of our restructured operations, we may be unsuccessful in executing our business strategy, which would have a material adverse effect on our financial condition and results of operations.

Further, also as announced on May 3, 2018, we are considering potential strategic alternatives to enhance stockholder value. Such strategic alternatives include, but are not limited to, a potential sale or merger of the company. We do not know if we will be successful in pursuing any strategic alternative or that any transaction will occur; however, we are committed to pursuing a strategic direction that our Board of Directors believes is in the best interests of our stockholders.

Item 5. Other Information

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On May 3, 2018, the Company's Board of Directors approved retention arrangements for the Company's Chief Executive Officer, Senior Vice President - Finance, Chief Scientific Officer and other employees, substantially as described below.

CEO Retention Arrangements: Pursuant to Dr. Kroeger's Employment Agreement with the Company, dated June 21, 2017, Dr. Kroeger is entitled to a payment of 12 months' base salary in the event of a termination of his employment without cause or for good reason (as defined in the Employment Agreement) within one year following a Change in Control Event (as defined in the Employment Agreement). Pursuant to the retention arrangements, under those circumstances Dr. Kroeger will also be entitled to his full bonus opportunity for the year (60% of his then-current base salary).

In addition, Dr. Kroeger will be entitled to receive a cash bonus equal to 1% of the OvaScience Deal Value (defined below) implied in a Change in Control Event, which will fully vest six months after the closing of such transaction, would be immediately payable in the event of a termination of his employment without cause or for good reason within one year following a Change in Control Event, and shall be forfeited if no strategic transaction is entered into within eighteen months of May 3, 2018.

On May 10, 2018, Dr. Kroeger will also receive a new grant of options to purchase 715,000 shares of the Company's common stock at an exercise price equal to the closing price of the Company's common stock on the grant date, which shall vest in full upon the closing of a Change in Control Event, and shall be forfeited by Dr. Kroeger if no strategic transaction is entered into within eighteen months. Dr. Kroeger will have the right to exercise this option for a three-year period after any termination of his employment (other than a termination for cause) following a Change in Control Event. The "OvaScience Deal Value" shall be the product of the number of shares of the Company outstanding immediately prior to the closing of a Change in Control Event multiplied by the closing price of the Company's common stock on the date of the closing of the Change in Control Event.

As previously reported, when he joined the Company, Dr. Kroeger received a grant of 1,783,108 options to purchase common stock of the Company at an exercise price of $1.46 per share (the "Kroeger New Hire Options"), which are currently under water relative to the closing price of the common stock on May 2, 2018 of $0.91. Under their original terms, each of the Kroeger New Hire Options can be exercised for 90 days after termination of employment. The retention arrangements approved for Dr. Kroeger provide that 1,069,864 of the Kroeger New Hire Options may be exercised for three years after his termination (other than for cause). The remaining 713,242 Kroeger New Hire Options shall retain a 90 day post-termination exercise period.

Retention Arrangements for Other Officers and for Employees: Pursuant to the employment agreements between the Company and Jonathan Gillis, Senior Vice President - Finance and Dr. James Lillie, Chief Scientific Officer, respectively, Mr. Gillis and Dr. Lillie are each entitled to a payment of six months' base salary in the event of a termination of employment without cause or for good reason. Pursuant to the retention arrangements, Mr. Gillis and Dr. Lillie will each also be entitled to a payment of his full bonus opportunity for the year (35% and 40% of his then-current base salary, respectively) in the event of a termination of his employment without cause or for good reason following a Change in Control Event. Two other non-executive employees of the Company will also receive the same provision with respect to their bonus payment in the event of a termination of employment without cause or for good reason following a Change in Control Event.

In addition, Mr. Gillis, Dr. Lillie and two non-executive employees will be entitled to receive cash bonuses in an amount equal to an aggregate of 1.25% of the OvaScience Deal Value implied by a Change in Control Event, which will fully vest six months after the closing of such transaction for Mr. Gillis and Dr. Lillie, will fully vest immediately upon the closing of such transaction for the non-executive employees, and shall be forfeited if no strategic transaction is entered into within eighteen months of the date hereof. The cash bonuses would be paid in full in the event of a termination of Mr. Gillis' or Dr. Lillie's employment without cause or for good reason following a Change in Control Event.

On May 10, 2018, Mr. Gillis and Dr. Lillie will also receive new grants of 75,000 and 125,000 options, respectively, to purchase shares of the Company's common stock, with an exercise price equal to the closing price of the Company's common stock on the grant date, which shall vest in full upon the closing of a strategic transaction, and shall be forfeited if no strategic transaction is entered into within eighteen months. Mr. Gillis and Dr. Lillie will have the right

to exercise these options for a one-year period after any termination of their respective employment (other than for cause). Three other non-executive employees and a consultant will receive option grants (in an aggregate amount of 260,000 options) in connection with the retention arrangements, which shall vest in full upon the closing of a strategic transaction and shall be forfeited if no strategic transaction is entered into within eighteen months. In addition, pursuant to the retention arrangements, all outstanding option grants held by Mr. Gillis (206,145 options), Dr. Lillie (357,057 options) and four other non-executive employees and one consultant (in an aggregate amount of 789,632 options) will be exercisable for a one-year period (increased from a 90 day period in the original grants) after any termination of such employee's employment (other than for cause) following a Change in Control Event.

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The Company will enter into definitive agreements reflecting these terms with each affected employee and executive.

Item 6. Exhibits

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

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Exhibit Index

Exhibit	Description
10.1#	Nonstatutory Stock Option Agreement, dated March 6, 2018, by and between the Registrant and James W. Lillie, Ph.D
10.2†	Exclusive License Agreement, dated June 27, 2011, between the Registrant and The General Hospital Corporation.
10.3†	Amendment No. 1 to the Exclusive License Agreement dated September 7, 2011, between the Registrant and the General Hospital Corporation.
10.4#	Termination Agreement, dated as of April 30, 2018, by and between the Registrant and Dr. Michelle Dipp.
31.1	Certification of Principal Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 by Principal Executive Officer.
31.2	Certification of Principal Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 by Principal Financial Officer.
32.1	Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, by Principal Executive Officer.
32.2	Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, by Principal Financial Officer.
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 Presentation Linkbase Document

# Indicates a management contract or compensatory plan.
† Confidential treatment has been requested as to portions of the exhibit. Confidential materials omitted and filed separately with the SEC.

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Signatures

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

OVASCIENCE, INC.

By: /s/ Christopher Kroeger
Name: Christopher Kroeger, M.D., M.B.A.
Date: May 3, 2018 Title: Chief Executive Officer (Principal Executive Officer)

By: /s/ Jonathan Gillis
Name: Jonathan Gillis
Date: May 3, 2018 Title: SVP, Finance (Principal Accounting and Financial Officer)